

# Spreadsheet Smarter, not Harder

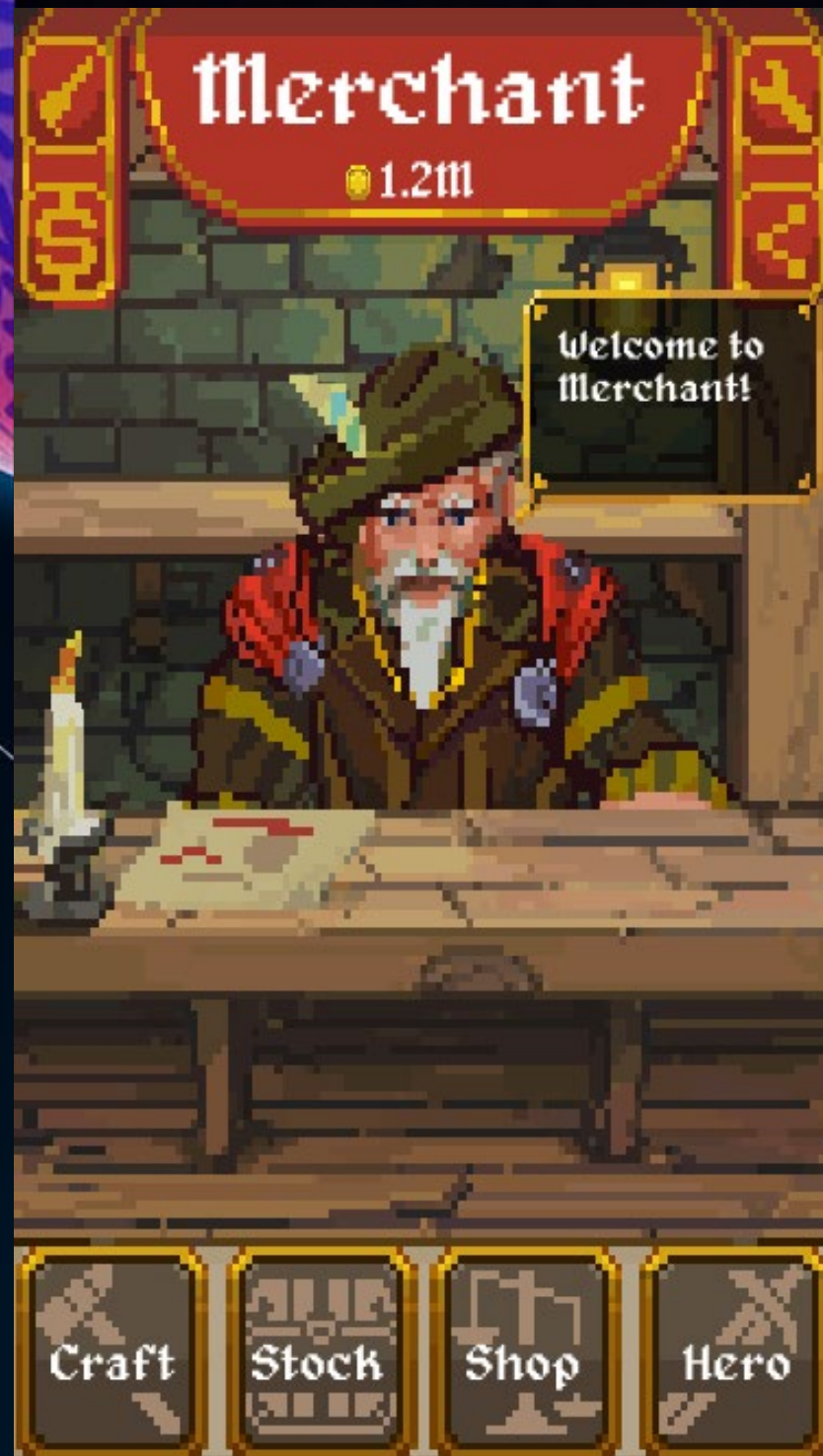
Tyler Coleman  
Founder @ Retora Games

<https://tinyurl.com/SpreadsheetSmarter>

GDC

I love spreadsheets.



[illegible]

*"Don't worry, we'll parse it out later"* - Jeshua Johnson

***“I like to make them colorful” - Garrett Savo***

*"You could ask about a specific monster's blood type, family ancestry, or social security number and Tyler would have a spreadsheet for that."* - Terry Nguyen



Event Title	Tier	Sub Story	Title Desc	Description (Long)	Action A	Action B	Action C	Action D	Pools	isStory	Image
DerelictShip_Basic	1	Basic	An Unresponsive Freighter	There's a freighter in scanning range, PNAME, but it looks to be dead in space. No engine signature, no detectable life signs. What are your orders?	FreighterDrone-Basic	FreighterScan-Basic	FreighterLoot-Basic	FreighterAvoid	Derelict		ship_event.png
DerelictShip_Fungus	3	Fungus	An Unresponsive Freighter	There's a freighter in scanning range, PNAME, but it looks to be dead in space. No engine signature, no detectable life signs. What are your orders?	FreighterDrone-Fungus	FreighterScan-Fungus	FreighterLoot-Fungus	FreighterAvoid	Derelict		ship_event.png
DerelictShip_Pirates	2	Pirates	An Unresponsive Freighter	There's a freighter in scanning range, PNAME, but it looks to be dead in space. No engine signature, no detectable life signs. What are your orders?	FreighterDrone-Pirates	FreighterScan-Pirates	FreighterLoot-Pirates	FreighterAvoid	Derelict		ship_event.png
DerelictShip_Zombies	3	Zombies	An Unresponsive Freighter	There's a freighter in scanning range, PNAME, but it looks to be dead in space. No engine signature, no detectable life signs. What are your orders?	FreighterDrone-Zombies	FreighterScan-Zombies	FreighterLoot-Basic	FreighterAvoid	Derelict		ship_event.png
DerelictShip_RobotKiller	2	RobotKiller	An Unresponsive Freighter	There's a freighter in scanning range, PNAME, but it looks to be dead in space. No engine signature, no detectable life signs. What are your orders?	FreighterDrone-Robot	FreighterScan-Robot	FreighterLoot-Basic	FreighterAvoid	Derelict		ship_event.png
StationDistress_Reactor	1	Reactor	A Station in Distress	A nearby space station is sending it's distress signal PNAME, what should we do?	StationDrone-Reactor	StationScan-Reactor	StationLoot-Reactor	StationAvoid	Station		distress_event.png
StationDistress_Riot	1	Riot	A Station in Distress	A nearby space station is sending it's distress signal PNAME, what should we do?	StationDrone-Riot	StationScan-Riot	StationLoot-Riot	StationAvoid	Station		distress_event.png
StationDistress_OrcRiot	1	Riot	A Station in Distress	A nearby space station is sending it's distress signal PNAME, what should we do?	StationDrone-Riot	StationScan-Riot	StationLoot-Riot	StationAvoid	Station		distress_event.png
StationDistress_Bandits	1	Bandits	A Station in Distress	A nearby space station is sending it's distress signal PNAME, what should we do?	StationDrone-Bandits	StationScan-Bandits	StationLoot-Bandits	StationAvoid	Station		distress_event.png
StationDistress_Plague	3	Plague	A Station in Distress	A nearby space station is sending it's distress signal PNAME, what should we do?	StationDrone-Plague	StationScan-Plague	StationLoot-Plague	StationAvoid	Station		distress_event.png
StationDistress_Cargo	2	Cargo	A Station in Distress	A nearby space station is sending it's distress signal PNAME, what should we do?	StationDrone-Cargo	StationScan-Cargo	StationLoot-Cargo	StationAvoid	Station		distress_event.png
StationDistress_CrazedAI	4	CrazedAI	A Station in Distress	A nearby space station is sending it's distress signal PNAME, what should we do?	StationDrone-CrazedAI	StationScan-CrazedAI	StationLoot-CrazedAI	StationAvoid	Station		distress_event.png
Trader_Basic	1	Basic	A Trader Looking for a Deal	A nearby trader hails us. They offer us a trade of goods and gossip.	TraderGoodDeal-Basic	TraderBaseDeal-Basic	TraderBadDeal-Basic	TraderAvoid	Trader		cargo_event.png
Trader_ResourceSurplus	1	GoodDeal	A Trader Looking for a Deal	A nearby trader hails us. They offer us a trade of goods and gossip.	TraderGoodDeal-Surplus	TraderBaseDeal-Surplus	TraderBadDeal-Basic	TraderAvoid	Trader		cargo_event.png
Trader_ResourceDemand	1	GoodDeal	A Trader Looking for a Deal	A nearby trader hails us. They offer us a trade of goods and gossip.	TraderGoodDeal-Demand	TraderBaseDeal-Demand	TraderBadDeal-Basic	TraderAvoid	Trader		cargo_event.png
Trader_Pirate	2	Pirate	A Trader Looking for a Deal	A nearby trader hails us. They offer us a trade of goods and gossip.	TraderGoodDeal-Pirate	TraderBaseDeal-Pirate	TraderBadDeal-Pirate	TraderAvoid	Trader		cargo_event.png
Trader_Treasure	2	Treasure	A Trader Looking for a Deal	A nearby trader hails us. They offer us a trade of goods and gossip.	TraderGoodDeal-Treasure	TraderBaseDeal-Treasure	TraderBadDeal-Basic	TraderAvoid	Trader		cargo_event.png
Trader_Freight	1	Freight	A Trader Looking for a Deal	A nearby trader hails us. They offer us a trade of goods and gossip.	TraderGoodDeal-Freight	TraderBaseDeal-Freight	TraderBadDeal-Freight	TraderAvoid	Trader		cargo_event.png
LostFreight_Basic	1	Basic	A Loose Cargo Container	There's a loose cargo container floating past. What should we do?	LostFreightLoad-Basic	LostFreightScan-Basic	LostFreightOpen-Basic	LostFreightAvoid	Cargo		cargo_event.png
LostFreight_Refugees	4	Refugees	A Loose Cargo Container	There's a loose cargo container floating past. What should we do?	LostFreightLoad-Refugees	LostFreightScan-Refugees	LostFreightOpen-Refugees	LostFreightAvoid	Cargo		cargo_event.png
LostFreight_RobotAttack	3	RobotAttack	A Loose Cargo Container	There's a loose cargo container floating past. What should we do?	LostFreightLoad-RobotAttack	LostFreightScan-RobotAttack	LostFreightOpen-RobotAttack	LostFreightAvoid	Cargo		cargo_event.png
LostFreight_Bomb	1	Bomb	A Loose Cargo Container	There's a loose cargo container floating past. What should we do?	LostFreightLoad-Bomb	LostFreightScan-Bomb	LostFreightOpen-Bomb	LostFreightAvoid	Cargo		cargo_event.png
LostFreight_Artifact	1	Artifact	A Loose Cargo Container	There's a loose cargo container floating past. What should we do?	LostFreightLoad-Artifact	LostFreightScan-Artifact	LostFreightOpen-Artifact	LostFreightAvoid	Cargo		cargo_event.png
StationDistress_AwkiStory	3	Awki	A Station in Distress	A nearby space station is sending it's distress signal PNAME, what should we do?	StationDrone-Awki	StationScan-Awki	StationLoot-Awki	StationAvoid-Awki	Station	TRUE	distress_event.png
Awki_QuarantineFail	3	Awki	The Quarantine has Broken!	Danger! Quarantine protocols at a hospital have been broken! All personnel and visitors have been exposed! Since you're immune to the pathogen, you're the perfect candidate to get things back in order.	QuarantineFail-Attack	QuarantineFail-Research	QuarantineFail-Assist	QuarantineFail-Avoid	Awki	TRUE	distress_event.png
Awki_SaveOutposts	3	Awki	Robots Are Attacking!	Six different medical outposts are under attack from robots all at once, almost as if this was a coordinated effort. What should we do?	SaveOutposts-Attack	SaveOutposts-Defend			Awki	TRUE	distress_event.png
Awki_ResearchThreat	3	Awki	Robots Are Attacking!	When it comes to researching the pathogen, there are two research teams at the forefront: Sigma Team and Theta Team. Which team do you prefer?	ResearchThreat-Attack	ResearchThreat-Defend			Awki	TRUE	distress_event.png



*"It's thanks to working with Tyler on Space Merchant that I now think in spreadsheets. I can't help it. Even my dreams have a data table." -El*

*"What's not to love about a good spreadsheet? It's got lines, it's got boxes, it's got procedurally-generated events about traveling through space and meeting all kinds of aliens while trying to not have an existential crisis about ethics... it's got it all, really!" - Anna Webster*





**Tyler** SOON **Merchant Stuff**  
@tylermakesgames



Alright Game Dev Twitter...  
How do you feel about spreadsheets?

Love em, live in em

59.5%

Indifferent

17.3%

Begrudgingly use them

16.4%

Never touch the stuff

6.8%

220 votes · Final results

The GDC logo is positioned at the top center of the slide. The background of the entire slide is a stylized space scene with a dark blue and black background, dotted with stars. Several celestial bodies are visible: a large purple planet with a patterned surface on the left, a ringed planet with pink and purple rings on the right, and a smaller ringed planet at the bottom center. Thin white lines representing orbits or constellations are scattered across the scene.

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Apparently, I'm not alone.

Why should you use them?



# Why should I spreadsheet?

Keep things organized *(sometimes you want tidy little boxes, rows and columns)*

Quick filtering/sorting *(gotta sort a list of names? Filter something? We gotchu)*

Lightweight alternative to specialized tools *(the swiss army knife of game dev)*

Data Validation *(Think of it like data-oriented spellcheck)*

Everybody's doing it *(yeah, I'll resort to peer pressure)*



How should you use them?

# Common Uses

Production- Sprint and milestone planning, task lists w/ status & time tracking

Art/Audio- Tracking assets through the Pipeline

Design- Gameplay content (items, dialogue, levels, loot tables, etc)

Biz Dev- Tracking costs and revenue, calculating user value, retention, etc.

Marketing- Tracking contacts, keys given out, moderator lists, etc.

QA- Bug lists w/ repro steps and current status

And a ton more



*Don't just take it from me...*

# Spreadsheet Enthusiasts

*Spreadsheets are the BEST! I use them to organize my thoughts, crunch numbers, handle localization, and even store game data exported directly into Unity.* - Sarah Northway @sarah\_northway



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# Spreadsheet Enthusiasts

*Literally all of Boyfriend Dungeon was written right into Google Sheets. Not just the numbers for balancing... Every single piece of text, in every language. Can you believe in word processing programs you can't reference line numbers easily when bugfixing or playtesting? Pathetic! - Tanya Short @tanyaxshort*

# Spreadsheet Enthusiasts

*Power Up Audio uses spreadsheets for team scheduling, asset tracking, VO production, and more. We're a team working in multiple projects simultaneously, so we'd be completely lost without some way to track the state of audio across those titles. - Kevin Regamy @regameyk*



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# Spreadsheet Enthusiasts

*I've found it to be super useful - with tabs separating different art fields like textures or vfx, and then color coding to indicate priority or status of assets. I really can't think of a simpler way to represent tasks. The services you see advertised like Asana or Monday just seem to bog down the process, at least as far as art goes - Mario Castañeda @wrackune*

# Sometimes, Begrudgingly Used

*I definitely have a love/hate relationship with them. They keep many things organized but sometimes having to consistently update them is a drag for an artist. I prefer to just run wild, but I understand their importance in keeping on top of projects. - Gabrielle @elloradatura*



# Sometimes, Begrudgingly Used

*I use them on every project. They are critical. Yet my spreadsheet skills improve at a glacial pace, so I always feel I'm inefficient. They struggle with the multi-dimensional, high data intensity requirements of Actual Game Data. Even my most complex ones are just a poorly maintained sketch. The game data is the ultimate truth. So most spreadsheets get out of sync at some point. You can drive the game data directly from the spreadsheet, but this is also fragile.*

-Daniel Cook @dantheduck

The GDC logo is positioned at the top center of the slide. The background of the entire slide is a vibrant space-themed illustration. It features a dark blue and black cosmic scene with various celestial bodies. On the left, a large purple planet with a complex, fractal-like pattern is partially visible. To the right, a ringed planet with pink and purple bands is shown. Several smaller, dark planets and moons are scattered throughout the scene, some with thin white orbital lines. The overall aesthetic is futuristic and artistic, typical of GDC's branding.

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# Time To Use Spreadsheets Smarter!



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[tinyurl.com/SpreadsheetSmarter](https://tinyurl.com/SpreadsheetSmarter)

Spreadsheet Smarter ☆ 📁 ☁

File Edit View Insert Format Data Tools Extensions Help [Last edit was 2 minutes ago](#)

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B30:J30 fx

	A	B	C	D	E	F	G	H	I	J	K
1	Hello and welcome to the <b>Spreadsheet Smarter</b> Workbook!										
2	<i>Google Sheets Edition</i>										
3											
4	<b>How to Get Started:</b>										
5	<b>Learning Concepts?</b>					<b>Want Templates?</b>					
6	Check out the <b>Features Examples</b> Sheet in the tabs below to see how multiple spreadsheet features can be used in game development					<b>Asset List</b> is for tracking assets and their current state. It's set up to be generic and could work for art, audio, text, or other content					
7						<b>Production Plan</b> is a template for setting up a task list for a small team. It lets you set priority, task state, and assign to members					
8											
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15											
16	<b>Pipeline</b> is a template for tracking assets through a pipeline. Define the steps in columns, track assets as they move through the pipeline stages										
17	<b>Budget</b> is a simple template if you want to keep a list of expenses and expected revenue, with some handy formulas set up for planning ahead.										
18											
19											
20	<b>Design</b> is a template for a variety of game design content formats with helper formulas for balance and calculations										
21											
22	<b>Links:</b>					<b>Credits:</b>					

+ ☰ **README** Comparison Feature Examples Asset List Production Plan Pipeline Budget Design

[tinyurl.com/SpreadsheetSmarter](https://tinyurl.com/SpreadsheetSmarter)



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# Software Options

	Microsoft Excel	Google Sheets	Calc (LibreOffice)	WPS Office	Zoho	Numbers (Mac)
Cloud Based?	No, Has Feature	Yes	No	No	Yes	No, Has Feature
Free?	No, Free on Mobile	Yes	Yes	Yes	Yes for Individual	Yes
Formulas?	Yes	Yes	Yes	Yes	Yes	Yes
Data Validation?	Yes	Yes	Yes	Yes	Yes	Yes
Filters?	Yes	Yes	Yes	Yes	Yes	Yes
Charts?	Yes	Yes	Yes	Yes	Yes	Yes
Reason to Use?	Already Own It, use Micro Office Suite	Cloud, Lots of Integrations, You Trust Google	Prefer Open Source	Prefer Open Source	Want Cloud, don't want to use Google/Microsoft	Have a Mac

*There is very little to no differences for the features I'll be showing*



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# Features We'll Check Out

Filters & Sorting

Conditional Formatting

Data Validation

Useful Conditionals

VLOOKUP

String Formatting

Exporting to JSON or XML

User Made Buttons



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# Pivot Tables?

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# ~~Pivot Tables~~



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# Filters


[tinyurl.com/SpreadsheetSmarter](https://tinyurl.com/SpreadsheetSmarter)

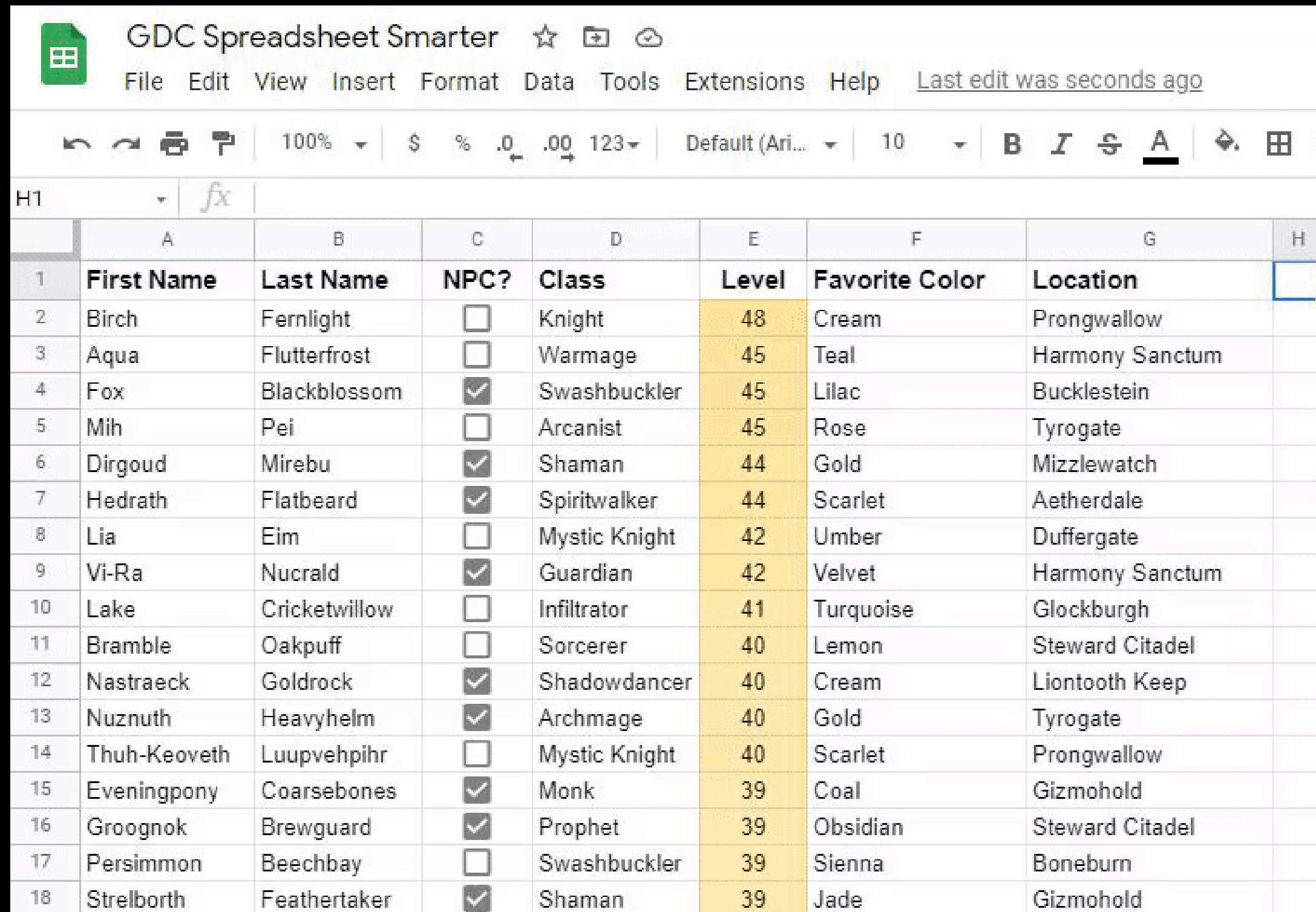
# Filters

Make sure to select only the data you want in the filter

Add filters from the Data menu (in most Apps)

Works best with Headers for each column

Little  Dropdowns on Headers allow for quick Filter/Sort access



The screenshot shows the GDC Spreadsheet Smarter application. The interface includes a menu bar (File, Edit, View, Insert, Format, Data, Tools, Extensions, Help) and a toolbar with various icons. The spreadsheet has columns for First Name, Last Name, NPC?, Class, Level, Favorite Color, and Location. The 'NPC?' column contains checkboxes, and the 'Level' column contains numerical values. The 'Data' menu is open, showing options for Filter, Sort, and other data manipulation tools.

	A	B	C	D	E	F	G	H
1	First Name	Last Name	NPC?	Class	Level	Favorite Color	Location	
2	Birch	Fernlight	<input type="checkbox"/>	Knight	48	Cream	Prongwallow	
3	Aqua	Flutterfrost	<input type="checkbox"/>	Warmage	45	Teal	Harmony Sanctum	
4	Fox	Blackblossom	<input checked="" type="checkbox"/>	Swashbuckler	45	Lilac	Bucklestein	
5	Mih	Pei	<input type="checkbox"/>	Arcanist	45	Rose	Tyrogate	
6	Dirgoud	Mirebu	<input checked="" type="checkbox"/>	Shaman	44	Gold	Mizzlewatch	
7	Hedrath	Flatbeard	<input checked="" type="checkbox"/>	Spiritwalker	44	Scarlet	Aetherdale	
8	Lia	Eim	<input type="checkbox"/>	Mystic Knight	42	Umber	Duffergate	
9	Vi-Ra	Nucrald	<input checked="" type="checkbox"/>	Guardian	42	Velvet	Harmony Sanctum	
10	Lake	Cricketwillow	<input type="checkbox"/>	Infiltrator	41	Turquoise	Glockburgh	
11	Bramble	Oakpuff	<input type="checkbox"/>	Sorcerer	40	Lemon	Steward Citadel	
12	Nastraeck	Goldrock	<input checked="" type="checkbox"/>	Shadowdancer	40	Cream	Liontooth Keep	
13	Nuznuth	Heavyhelm	<input checked="" type="checkbox"/>	Archmage	40	Gold	Tyrogate	
14	Thuh-Keoveth	Luupvehpihr	<input type="checkbox"/>	Mystic Knight	40	Scarlet	Prongwallow	
15	Eveningpony	Coarsebones	<input checked="" type="checkbox"/>	Monk	39	Coal	Gizmohold	
16	Groognok	Brewguard	<input checked="" type="checkbox"/>	Prophet	39	Obsidian	Steward Citadel	
17	Persimmon	Beechbay	<input type="checkbox"/>	Swashbuckler	39	Sienna	Boneburn	
18	Strelborth	Feathertaker	<input checked="" type="checkbox"/>	Shaman	39	Jade	Gizmohold	

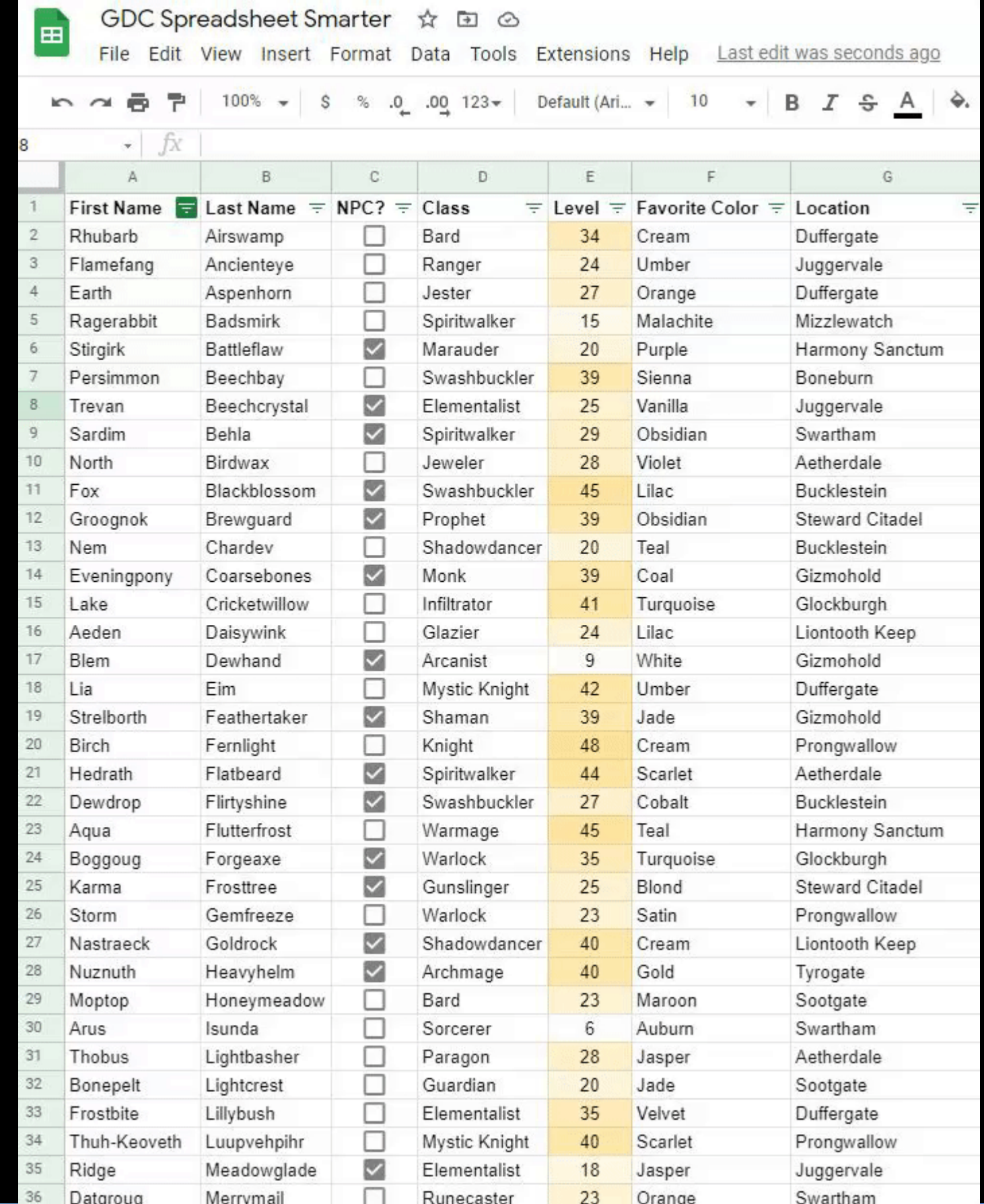


# Filters

Filter data based on criteria you select

Can use checkboxes to select specific values or conditions for ranges

Can also be used to Sort



The screenshot shows the GDC Spreadsheet Smarter application. The menu bar includes File, Edit, View, Insert, Format, Data, Tools, Extensions, and Help. The status bar indicates the last edit was seconds ago. The toolbar shows various icons for undo, redo, print, and zoom, along with currency and percentage symbols, and a dropdown for the number format (123). The spreadsheet has columns A through G. Column A is 'First Name', B is 'Last Name', C is 'NPC?' (with a filter icon), D is 'Class', E is 'Level', F is 'Favorite Color', and G is 'Location'. The data is as follows:

	A	B	C	D	E	F	G
1	First Name	Last Name	NPC?	Class	Level	Favorite Color	Location
2	Rhubarb	Airswamp	<input type="checkbox"/>	Bard	34	Cream	Duffergate
3	Flamefang	Ancienteye	<input type="checkbox"/>	Ranger	24	Umber	Juggervale
4	Earth	Aspenhorn	<input type="checkbox"/>	Jester	27	Orange	Duffergate
5	Ragerabbit	Badsmirk	<input type="checkbox"/>	Spiritwalker	15	Malachite	Mizzlewath
6	Stirgirk	Battleflaw	<input checked="" type="checkbox"/>	Marauder	20	Purple	Harmony Sanctum
7	Persimmon	Beechbay	<input type="checkbox"/>	Swashbuckler	39	Sienna	Boneburn
8	Trevan	Beechcrystal	<input checked="" type="checkbox"/>	Elementalist	25	Vanilla	Juggervale
9	Sardim	Behla	<input checked="" type="checkbox"/>	Spiritwalker	29	Obsidian	Swartham
10	North	Birdwax	<input type="checkbox"/>	Jeweler	28	Violet	Aetherdale
11	Fox	Blackblossom	<input checked="" type="checkbox"/>	Swashbuckler	45	Lilac	Bucklestein
12	Groognok	Brewguard	<input checked="" type="checkbox"/>	Prophet	39	Obsidian	Steward Citadel
13	Nem	Chardev	<input type="checkbox"/>	Shadowdancer	20	Teal	Bucklestein
14	Eveningpony	Coarsebones	<input checked="" type="checkbox"/>	Monk	39	Coal	Gizmohold
15	Lake	Cricketwillow	<input type="checkbox"/>	Infiltrator	41	Turquoise	Glockburgh
16	Aeden	Daisywink	<input type="checkbox"/>	Glazier	24	Lilac	Liontooth Keep
17	Blem	Dewhand	<input checked="" type="checkbox"/>	Arcanist	9	White	Gizmohold
18	Lia	Eim	<input type="checkbox"/>	Mystic Knight	42	Umber	Duffergate
19	Strelborth	Feathertaker	<input checked="" type="checkbox"/>	Shaman	39	Jade	Gizmohold
20	Birch	Fernlight	<input type="checkbox"/>	Knight	48	Cream	Prongwallow
21	Hedrath	Flatbeard	<input checked="" type="checkbox"/>	Spiritwalker	44	Scarlet	Aetherdale
22	Dewdrop	Flirtyshine	<input checked="" type="checkbox"/>	Swashbuckler	27	Cobalt	Bucklestein
23	Aqua	Flutterfrost	<input type="checkbox"/>	Warmage	45	Teal	Harmony Sanctum
24	Boggoug	Forgeaxe	<input checked="" type="checkbox"/>	Warlock	35	Turquoise	Glockburgh
25	Karma	Frosttree	<input checked="" type="checkbox"/>	Gunslinger	25	Blond	Steward Citadel
26	Storm	Gemfreeze	<input type="checkbox"/>	Warlock	23	Satin	Prongwallow
27	Nastraeck	Goldrock	<input checked="" type="checkbox"/>	Shadowdancer	40	Cream	Liontooth Keep
28	Nuznuth	Heavyhelm	<input checked="" type="checkbox"/>	Archmage	40	Gold	Tyrogate
29	Moptop	Honeymeadow	<input type="checkbox"/>	Bard	23	Maroon	Sootgate
30	Arus	Isunda	<input type="checkbox"/>	Sorcerer	6	Auburn	Swartham
31	Thobus	Lightbasher	<input type="checkbox"/>	Paragon	28	Jasper	Aetherdale
32	Bonepelt	Lightcrest	<input type="checkbox"/>	Guardian	20	Jade	Sootgate
33	Frostbite	Lillybush	<input type="checkbox"/>	Elementalist	35	Velvet	Duffergate
34	Thuh-Keoveth	Luupvehpihr	<input type="checkbox"/>	Mystic Knight	40	Scarlet	Prongwallow
35	Ridge	Meadowglade	<input checked="" type="checkbox"/>	Elementalist	18	Jasper	Juggervale
36	Dataroug	Merrymail	<input type="checkbox"/>	Runecaster	23	Orange	Swartham



# Excel- Custom Sort List

[tinyurl.com/SpreadsheetSmarter](https://tinyurl.com/SpreadsheetSmarter)

# Custom Sort

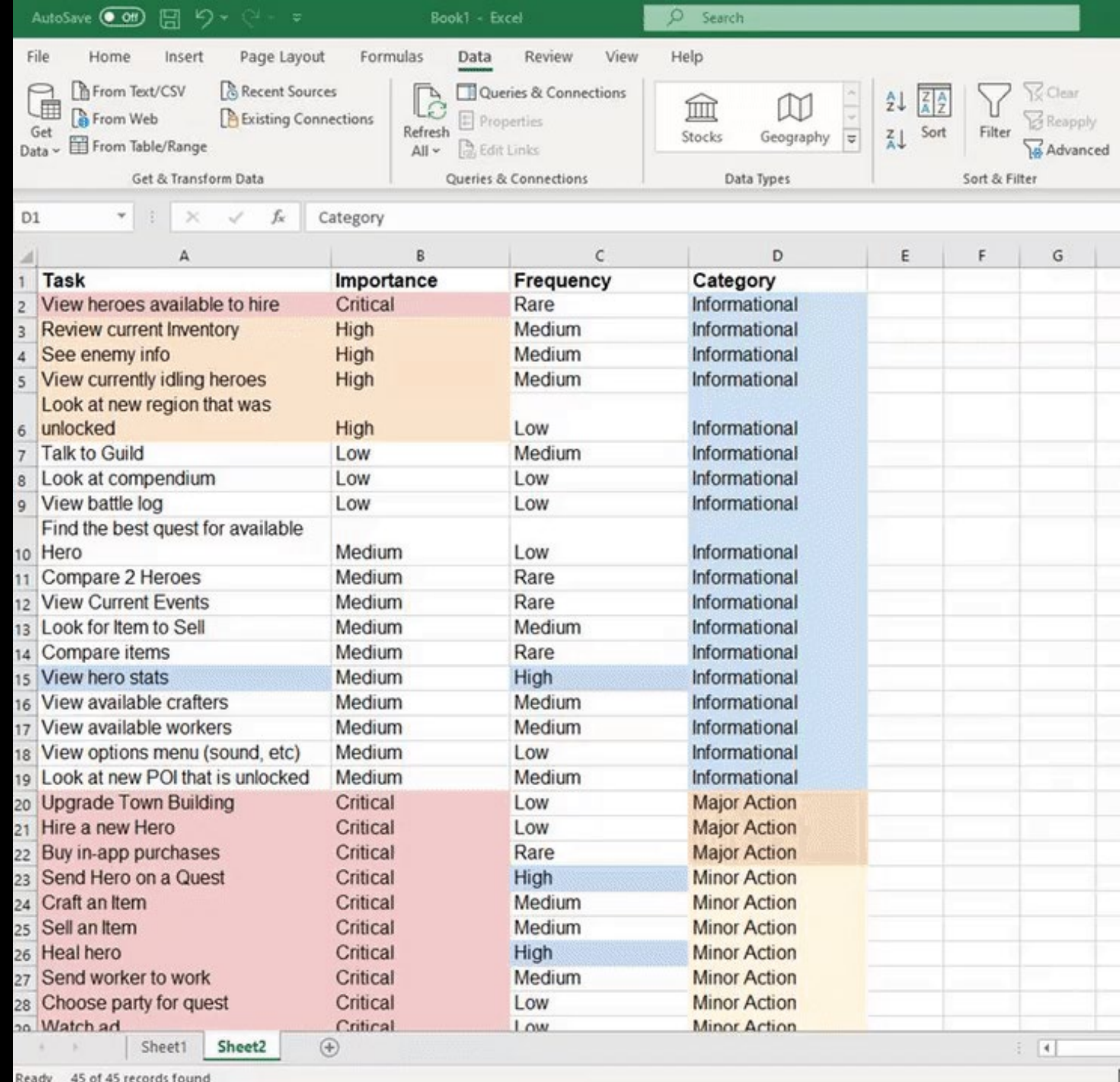
Can be used to sort text by a non-alphabetical order

Great for things like:

- Days of the Week, Months of Year
- Critical, High, Mid, Low for priority

*This feature doesn't exist in Google Sheets without a formula*

*The quick hack is to add a number to each category  
(1-High, 2-Mid, 3-Low)*



Task	Importance	Frequency	Category
View heroes available to hire	Critical	Rare	Informational
Review current Inventory	High	Medium	Informational
See enemy info	High	Medium	Informational
View currently idling heroes	High	Medium	Informational
Look at new region that was unlocked	High	Low	Informational
Talk to Guild	Low	Medium	Informational
Look at compendium	Low	Low	Informational
View battle log	Low	Low	Informational
Find the best quest for available Hero	Medium	Low	Informational
Compare 2 Heroes	Medium	Rare	Informational
View Current Events	Medium	Rare	Informational
Look for Item to Sell	Medium	Medium	Informational
Compare items	Medium	Rare	Informational
View hero stats	Medium	High	Informational
View available crafters	Medium	Medium	Informational
View available workers	Medium	Medium	Informational
View options menu (sound, etc)	Medium	Low	Informational
Look at new POI that is unlocked	Medium	Medium	Informational
Upgrade Town Building	Critical	Low	Major Action
Hire a new Hero	Critical	Low	Major Action
Buy in-app purchases	Critical	Rare	Major Action
Send Hero on a Quest	Critical	High	Minor Action
Craft an Item	Critical	Medium	Minor Action
Sell an Item	Critical	Medium	Minor Action
Heal hero	Critical	High	Minor Action
Send worker to work	Critical	Medium	Minor Action
Choose party for quest	Critical	Low	Minor Action
Watch ad	Critical	Low	Minor Action



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# Conditional Formatting

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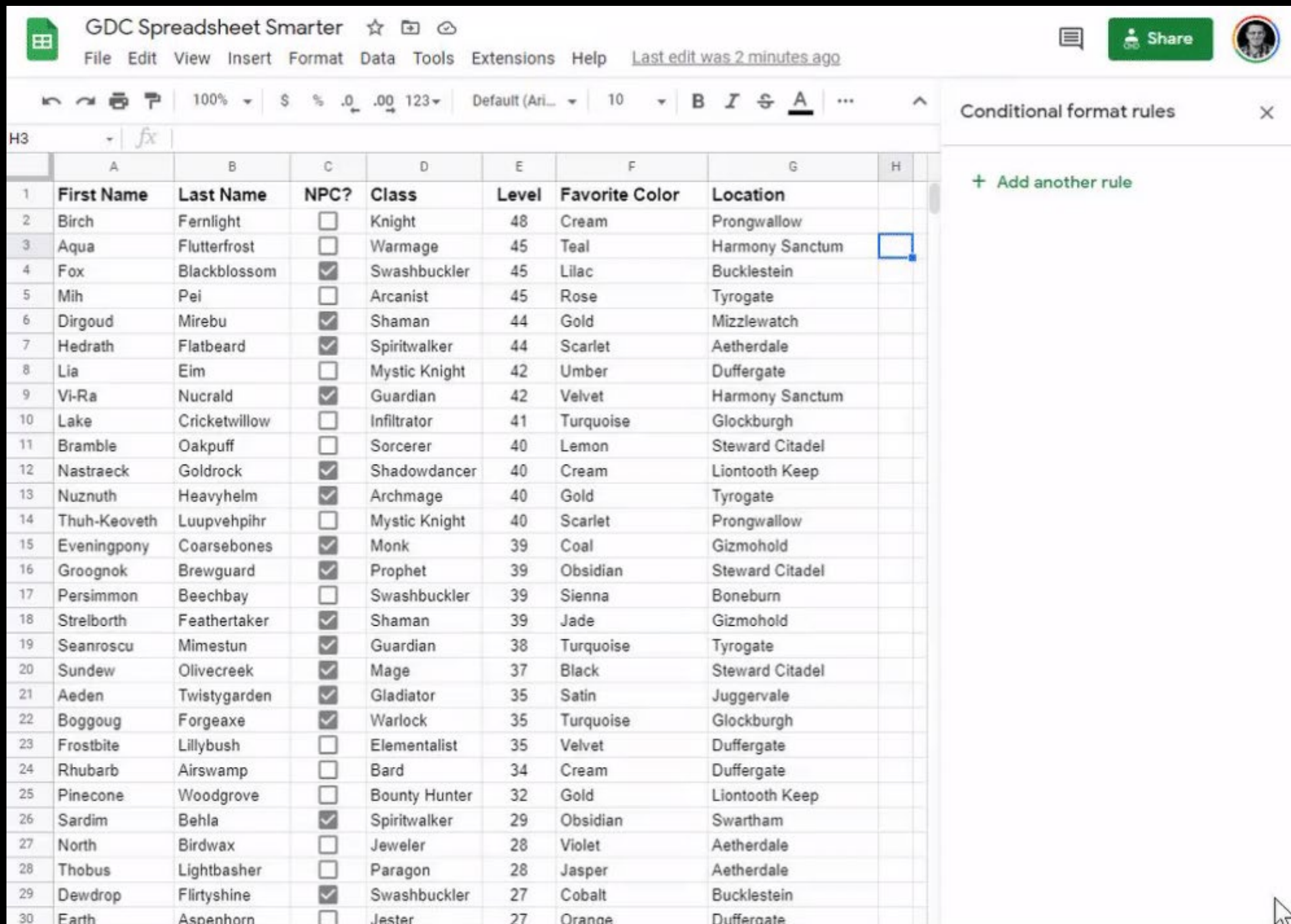
# Conditional Formatting

Add a little color to your sheets!

Great for highlighting important info

Useful options:

- Text Contains for any string you need to highlight
- Date is Before/After today (*deadlines amirite*)
- Text is Empty, set to red to indicate empty cell that needs data
- Value is not between X & Y when looking to validate value ranges



The screenshot shows the GDC Spreadsheet Smarter interface. The main spreadsheet displays a character sheet with columns: First Name, Last Name, NPC?, Class, Level, Favorite Color, and Location. The NPC? column uses conditional formatting to highlight cells containing a checkmark. A sidebar on the right shows the 'Conditional format rules' panel with a '+ Add another rule' button.

	A	B	C	D	E	F	G	H
	First Name	Last Name	NPC?	Class	Level	Favorite Color	Location	
1	Birch	Fernlight	<input type="checkbox"/>	Knight	48	Cream	Prongwallow	
2	Aqua	Flutterfrost	<input type="checkbox"/>	Warmage	45	Teal	Harmony Sanctum	
3	Fox	Blackblossom	<input checked="" type="checkbox"/>	Swashbuckler	45	Lilac	Bucklestein	
4	Mih	Pei	<input type="checkbox"/>	Arcanist	45	Rose	Tyrogate	
5	Dirgoud	Mirebu	<input checked="" type="checkbox"/>	Shaman	44	Gold	Mizzlewatch	
6	Hedrath	Flatbeard	<input checked="" type="checkbox"/>	Spiritwalker	44	Scarlet	Aetherdale	
7	Lia	Eim	<input type="checkbox"/>	Mystic Knight	42	Umber	Duffergate	
8	Vi-Ra	NucraId	<input checked="" type="checkbox"/>	Guardian	42	Velvet	Harmony Sanctum	
9	Lake	Cricketwillow	<input type="checkbox"/>	Infiltrator	41	Turquoise	Glockburgh	
10	Bramble	Oakpuff	<input type="checkbox"/>	Sorcerer	40	Lemon	Steward Citadel	
11	Nastraeck	Goldrock	<input checked="" type="checkbox"/>	Shadowdancer	40	Cream	Liontooth Keep	
12	Nuznuth	Heavyhelm	<input checked="" type="checkbox"/>	Archmage	40	Gold	Tyrogate	
13	Thuh-Keoveth	Luupvehpihr	<input type="checkbox"/>	Mystic Knight	40	Scarlet	Prongwallow	
14	Eveningpony	Coarsebones	<input checked="" type="checkbox"/>	Monk	39	Coal	Gizmohold	
15	Groognok	Brewguard	<input checked="" type="checkbox"/>	Prophet	39	Obsidian	Steward Citadel	
16	Persimmon	Beechbay	<input type="checkbox"/>	Swashbuckler	39	Sienna	Boneburn	
17	Strelborth	Feathertaker	<input checked="" type="checkbox"/>	Shaman	39	Jade	Gizmohold	
18	Seanroscu	Mimestun	<input checked="" type="checkbox"/>	Guardian	38	Turquoise	Tyrogate	
19	Sundew	Olivecreek	<input checked="" type="checkbox"/>	Mage	37	Black	Steward Citadel	
20	Aeden	Twistygarden	<input checked="" type="checkbox"/>	Gladiator	35	Satin	Juggervale	
21	Boggoug	Forgeaxe	<input checked="" type="checkbox"/>	Warlock	35	Turquoise	Glockburgh	
22	Frostbite	Lillybush	<input type="checkbox"/>	Elementalist	35	Velvet	Duffergate	
23	Rhubarb	Airswamp	<input type="checkbox"/>	Bard	34	Cream	Duffergate	
24	Pinecone	Woodgrove	<input type="checkbox"/>	Bounty Hunter	32	Gold	Liontooth Keep	
25	Sardim	Behla	<input checked="" type="checkbox"/>	Spiritwalker	29	Obsidian	Swartham	
26	North	Birdwax	<input type="checkbox"/>	Jeweler	28	Violet	Aetherdale	
27	Thobus	Lightbasher	<input type="checkbox"/>	Paragon	28	Jasper	Aetherdale	
28	Dewdrop	Flirtyshine	<input checked="" type="checkbox"/>	Swashbuckler	27	Cobalt	Bucklestein	
29	Earth	Aspenhorn	<input type="checkbox"/>	Jester	27	Orange	Duffergate	



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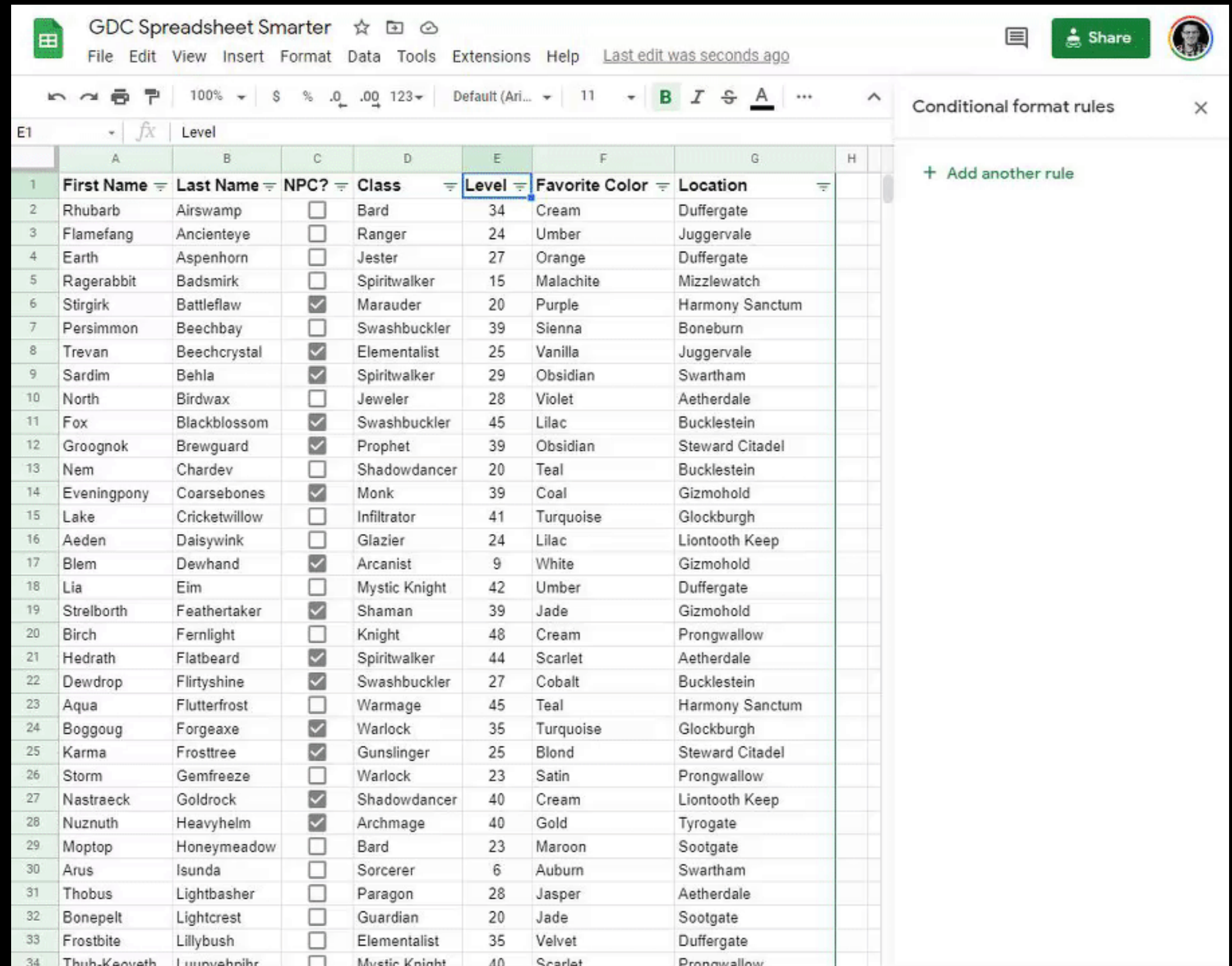


# Formatting- Scale

You can format a range based on a scale of values

It defaults the range to lowest and highest values found, but you can manually tweak the range

*You can also change the colors*



The screenshot shows the GDC Spreadsheet Smarter application. The main table contains character data with columns: First Name, Last Name, NPC?, Class, Level, Favorite Color, and Location. The 'Level' column is highlighted with a blue background, indicating a conditional format rule is applied. The right sidebar shows the 'Conditional format rules' panel with a '+ Add another rule' button.

	A	B	C	D	E	F	G	H
	First Name	Last Name	NPC?	Class	Level	Favorite Color	Location	
1	Rhubarb	Airswamp	<input type="checkbox"/>	Bard	34	Cream	Duffergate	
2	Flamefang	Ancienteye	<input type="checkbox"/>	Ranger	24	Umber	Juggervale	
3	Earth	Aspenhorn	<input type="checkbox"/>	Jester	27	Orange	Duffergate	
4	Ragerabbit	Badsmirk	<input type="checkbox"/>	Spiritwalker	15	Malachite	Mizzlewatch	
5	Stirgirk	Battleflaw	<input checked="" type="checkbox"/>	Marauder	20	Purple	Harmony Sanctum	
6	Persimmon	Beechbay	<input type="checkbox"/>	Swashbuckler	39	Sienna	Boneburn	
7	Trevar	Beechcrystal	<input checked="" type="checkbox"/>	Elementalist	25	Vanilla	Juggervale	
8	Sardim	Behla	<input checked="" type="checkbox"/>	Spiritwalker	29	Obsidian	Swartham	
9	North	Birdwax	<input type="checkbox"/>	Jeweler	28	Violet	Aetherdale	
10	Fox	Blackblossom	<input checked="" type="checkbox"/>	Swashbuckler	45	Lilac	Bucklestein	
11	Groognok	Brewguard	<input checked="" type="checkbox"/>	Prophet	39	Obsidian	Steward Citadel	
12	Nem	Chardev	<input type="checkbox"/>	Shadowdancer	20	Teal	Bucklestein	
13	Eveningpony	Coarsebones	<input checked="" type="checkbox"/>	Monk	39	Coal	Gizmohold	
14	Lake	Cricketwillow	<input type="checkbox"/>	Infiltrator	41	Turquoise	Glockburgh	
15	Aeden	Daisywink	<input type="checkbox"/>	Glazier	24	Lilac	Liontooth Keep	
16	Blem	Dewhand	<input checked="" type="checkbox"/>	Arcanist	9	White	Gizmohold	
17	Lia	Eim	<input type="checkbox"/>	Mystic Knight	42	Umber	Duffergate	
18	Strelborth	Feathertaker	<input checked="" type="checkbox"/>	Shaman	39	Jade	Gizmohold	
19	Birch	Fernlight	<input type="checkbox"/>	Knight	48	Cream	Prongwallow	
20	Hedrath	Flatbeard	<input checked="" type="checkbox"/>	Spiritwalker	44	Scarlet	Aetherdale	
21	Dewdrop	Flirtyshine	<input checked="" type="checkbox"/>	Swashbuckler	27	Cobalt	Bucklestein	
22	Aqua	Flutterfrost	<input type="checkbox"/>	Warmage	45	Teal	Harmony Sanctum	
23	Boggoug	Forgeaxe	<input checked="" type="checkbox"/>	Warlock	35	Turquoise	Glockburgh	
24	Karma	Frosttree	<input checked="" type="checkbox"/>	Gunslinger	25	Blond	Steward Citadel	
25	Storm	Gemfreeze	<input type="checkbox"/>	Warlock	23	Satin	Prongwallow	
26	Nastraeck	Goldrock	<input checked="" type="checkbox"/>	Shadowdancer	40	Cream	Liontooth Keep	
27	Nuznuth	Heavyhelm	<input checked="" type="checkbox"/>	Archmage	40	Gold	Tyrogate	
28	Moptop	Honeymeadow	<input type="checkbox"/>	Bard	23	Maroon	Sootgate	
29	Arus	Isunda	<input type="checkbox"/>	Sorcerer	6	Auburn	Swartham	
30	Thobus	Lightbasher	<input type="checkbox"/>	Paragon	28	Jasper	Aetherdale	
31	Bonepelt	Lightcrest	<input type="checkbox"/>	Guardian	20	Jade	Sootgate	
32	Frostbite	Lillybush	<input type="checkbox"/>	Elementalist	35	Velvet	Duffergate	
33	Thub-Keoveth	Lunpvehpihr	<input type="checkbox"/>	Mystic Knight	40	Scarlet	Prongwallow	

# Formatting w/ Custom Formula



# Formatting w/ Formula

Format one cell based on the value  
in another cell

Start with a “=” then the formula.  
Use the first related cell as  
reference.

In this example, column J is  
highlighted yellow if the cell is  
checked (TRUE), but if the cell to the  
right of it (in column K) is checked  
(TRUE), it switches to Green

	J	K	L	M	N	O
	UI Drafted	UI Mockup	UX/UI Approved for Dev	Assets Uploaded	Assets Implemented	UI Script Setup
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Single color

Color scale

Apply to range

J1:J1020

Format rules

Format cells if...

Custom formula is

=K1=TRUE

Formatting style

Default

B I U S A

Cancel

Done

+ Add another rule



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# Formatting w/ Formula

You can also check for specific  
text values

In this example, I'm changing the  
class color to the NPC's favorite  
color (Teal as example)

*Because I'm formatting cells D1 to  
D999, I use cell F1 for the  
formula. This will relate D1 to F1,  
D2 to F2, and so on*

The screenshot shows the GDC Spreadsheet Smarter application. The main table contains character data with columns for First Name, Last Name, NPC?, Class, Level, Favorite Color, and Location. A conditional formatting rule is applied to the 'Class' column (D1:D999), using the formula '=F1' to color the cells based on the 'Favorite Color' column (F1:F999). The rule is named 'Class Color' and is currently set to 'Teal'.

	A	B	C	D	E	F	G	H
1	First Name	Last Name	NPC?	Class	Level	Favorite Color	Location	
2	Birch	Fernlight	<input type="checkbox"/>	Knight	48	Cream	Prongwallow	
3	Fox	Blackblossom	<input checked="" type="checkbox"/>	Swashbuckler	45	Lilac	Bucklestein	
4	Aqua	Flutterfrost	<input type="checkbox"/>	Warmage	45	Teal	Harmony Sanctum	
5	Mih	Pei	<input type="checkbox"/>	Arcanist	45	Rose	Tyrogate	
6	Hedrath	Flatbeard	<input checked="" type="checkbox"/>	Spiritwalker	44	Scarlet	Aetherdale	
7	Dirgoud	Mirebu	<input checked="" type="checkbox"/>	Shaman	44	Gold	Mizzlewatch	
8	Lia	Eim	<input type="checkbox"/>	Mystic Knight	42	Umber	Duffergate	
9	Vi-Ra	NucraId	<input checked="" type="checkbox"/>	Guardian	42	Velvet	Harmony Sanctum	
10	Lake	Cricketwillow	<input type="checkbox"/>	Infiltrator	41	Turquoise	Glockburgh	
11	Nastraeck	Goldrock	<input checked="" type="checkbox"/>	Shadowdancer	40	Cream	Liontooth Keep	
12	Nuznuth	Heavyhelm	<input checked="" type="checkbox"/>	Archmage	40	Gold	Tyrogate	
13	Thuh-Keoveth	Luupvehpihr	<input type="checkbox"/>	Mystic Knight	40	Scarlet	Prongwallow	
14	Bramble	Oakpuff	<input type="checkbox"/>	Sorcerer	40	Lemon	Steward Citadel	
15	Persimmon	Beechbay	<input type="checkbox"/>	Swashbuckler	39	Sienna	Boneburn	
16	Groognok	Brewguard	<input checked="" type="checkbox"/>	Prophet	39	Obsidian	Steward Citadel	
17	Eveningpony	Coarsebones	<input checked="" type="checkbox"/>	Monk	39	Coal	Gizmohold	
18	Strelborth	Feathertaker	<input checked="" type="checkbox"/>	Shaman	39	Jade	Gizmohold	
19	Seanroscu	Mimestun	<input checked="" type="checkbox"/>	Guardian	38	Turquoise	Tyrogate	
20	Sundew	Olivecreek	<input checked="" type="checkbox"/>	Mage	37	Black	Steward Citadel	
21	Boggoug	Forgeaxe	<input checked="" type="checkbox"/>	Warlock	35	Turquoise	Glockburgh	
22	Frostbite	Lillybush	<input type="checkbox"/>	Elementalist	35	Velvet	Duffergate	
23	Aeden	Twistyarden	<input checked="" type="checkbox"/>	Gladiator	35	Satin	Juggervale	
24	Rhubarb	Airswamp	<input type="checkbox"/>	Bard	34	Cream	Duffergate	
25	Pinecone	Woodgrove	<input type="checkbox"/>	Bounty Hunter	32	Gold	Liontooth Keep	
26	Sardim	Behla	<input checked="" type="checkbox"/>	Spiritwalker	29	Obsidian	Swartham	
27	North	Birdwax	<input type="checkbox"/>	Jeweler	28	Violet	Aetherdale	



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# Data Validation

[tinyurl.com/SpreadsheetSmarter](https://tinyurl.com/SpreadsheetSmarter)



# Data Validation Dropdowns

[tinyurl.com/SpreadsheetSmarter](https://tinyurl.com/SpreadsheetSmarter)

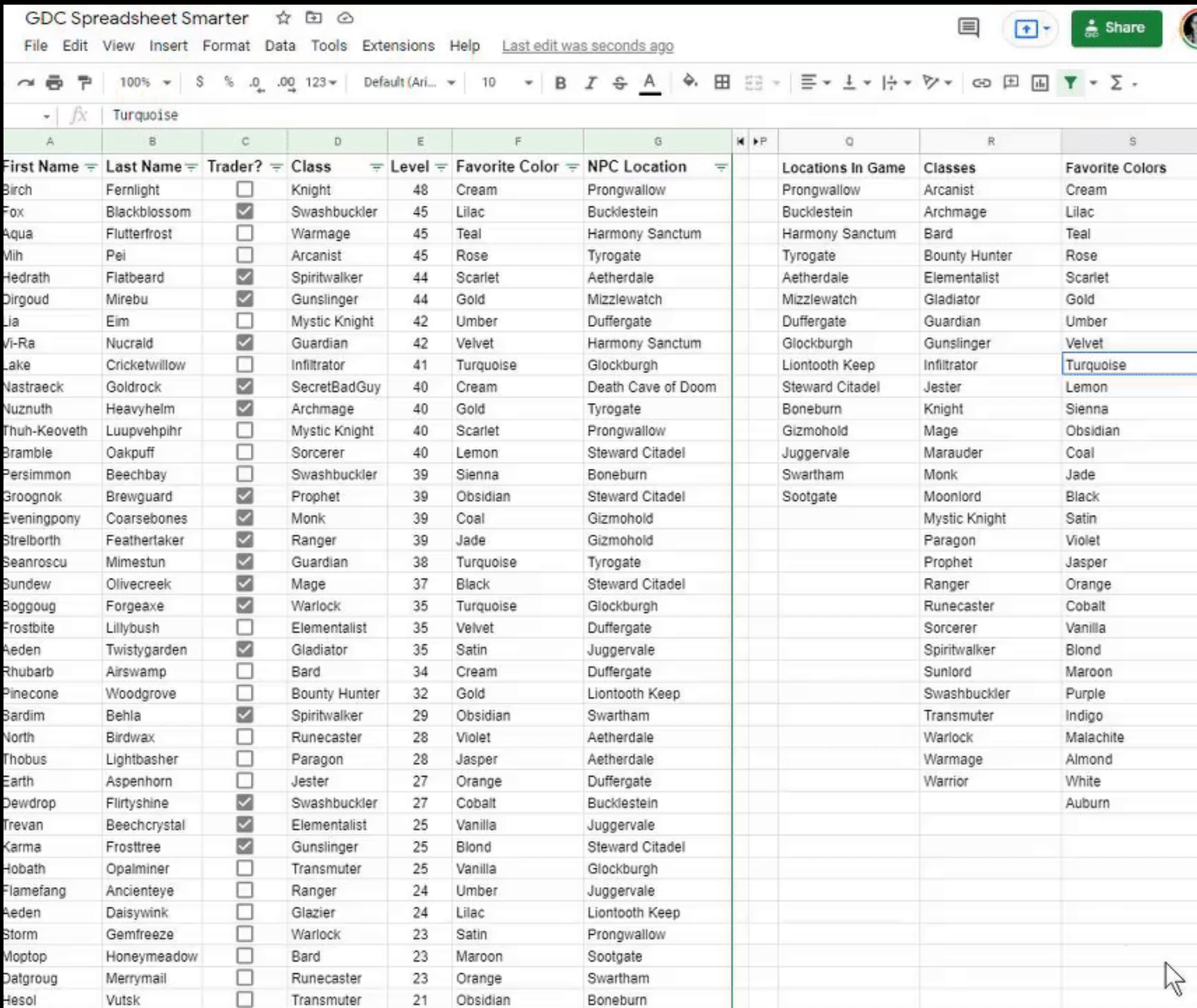
# Data Validation Dropdowns

Create dropdowns on cells

Data > Data Validation  
(List in Excel, Range in Sheets)

You can prevent values that  
don't match the validation  
with error messages  
(*Reject Input in Sheets*)

*Plays nice with Filters!*



The screenshot shows the GDC Spreadsheet Smarter interface. The top menu bar includes File, Edit, View, Insert, Format, Data, Tools, Extensions, and Help. The toolbar below the menu contains various icons for undo, redo, copy, paste, and other spreadsheet functions. The main area displays a table with columns A through S. The first seven columns (A-G) are filtered, and the last three columns (Q-S) are sorted. The table contains character data with dropdown menus for selection.

First Name	Last Name	Trader?	Class	Level	Favorite Color	NPC Location	Locations In Game	Classes	Favorite Colors
Birch	Fernlight	<input type="checkbox"/>	Knight	48	Cream	Prongwallow	Prongwallow	Arcanist	Cream
Fox	Blackblossom	<input checked="" type="checkbox"/>	Swashbuckler	45	Lilac	Bucklestein	Bucklestein	Archmage	Lilac
Aqua	Flutterfrost	<input type="checkbox"/>	Warmage	45	Teal	Harmony Sanctum	Harmony Sanctum	Bard	Teal
Mih	Pei	<input type="checkbox"/>	Arcanist	45	Rose	Tyrogate	Tyrogate	Bounty Hunter	Rose
Hedrath	Flatbeard	<input checked="" type="checkbox"/>	Spiritwalker	44	Scarlet	Aetherdale	Aetherdale	Elementalist	Scarlet
Dirgoud	Mirebu	<input checked="" type="checkbox"/>	Gunslinger	44	Gold	Mizzlewatch	Mizzlewatch	Gladiator	Gold
Lia	Eim	<input type="checkbox"/>	Mystic Knight	42	Umber	Duffergate	Duffergate	Guardian	Umber
Vi-Ra	Nucrald	<input checked="" type="checkbox"/>	Guardian	42	Velvet	Harmony Sanctum	Glockburgh	Gunslinger	Velvet
Lake	Cricketwillow	<input type="checkbox"/>	Infiltrator	41	Turquoise	Glockburgh	Liontooth Keep	Infiltrator	Turquoise
Nastraeck	Goldrock	<input checked="" type="checkbox"/>	SecretBadGuy	40	Cream	Death Cave of Doom	Steward Citadel	Jester	Lemon
Nuznuth	Heavyhelm	<input checked="" type="checkbox"/>	Archmage	40	Gold	Tyrogate	Boneburn	Knight	Sienna
Thuh-Keoveth	Luupvehpihr	<input type="checkbox"/>	Mystic Knight	40	Scarlet	Prongwallow	Gizmohold	Mage	Obsidian
Bramble	Oakpuff	<input type="checkbox"/>	Sorcerer	40	Lemon	Steward Citadel	Juggervale	Marauder	Coal
Persimmon	Beechbay	<input type="checkbox"/>	Swashbuckler	39	Sienna	Boneburn	Swartham	Monk	Jade
Groognok	Brewguard	<input checked="" type="checkbox"/>	Prophet	39	Obsidian	Steward Citadel	Sootgate	Moonlord	Black
Eveningpony	Coarsebones	<input checked="" type="checkbox"/>	Monk	39	Coal	Gizmohold		Mystic Knight	Satin
Strelborth	Feathertaker	<input checked="" type="checkbox"/>	Ranger	39	Jade	Gizmohold		Paragon	Violet
Seanroscu	Mimestun	<input checked="" type="checkbox"/>	Guardian	38	Turquoise	Tyrogate		Prophet	Jasper
Bundew	Olivecreek	<input checked="" type="checkbox"/>	Mage	37	Black	Steward Citadel		Ranger	Orange
Boggoug	Forgeaxe	<input checked="" type="checkbox"/>	Warlock	35	Turquoise	Glockburgh		Runecaster	Cobalt
Frostbite	Lillybush	<input type="checkbox"/>	Elementalist	35	Velvet	Duffergate		Sorcerer	Vanilla
Aeden	Twistygarden	<input checked="" type="checkbox"/>	Gladiator	35	Satin	Juggervale		Spiritwalker	Blond
Rhubarb	Airswamp	<input type="checkbox"/>	Bard	34	Cream	Duffergate		Sunlord	Maroon
Pinecone	Woodgrove	<input type="checkbox"/>	Bounty Hunter	32	Gold	Liontooth Keep		Swashbuckler	Purple
Bardim	Behla	<input checked="" type="checkbox"/>	Spiritwalker	29	Obsidian	Swartham		Transmuter	Indigo
North	Birdwax	<input type="checkbox"/>	Runecaster	28	Violet	Aetherdale		Warlock	Malachite
Thobus	Lightbasher	<input type="checkbox"/>	Paragon	28	Jasper	Aetherdale		Warmage	Almond
Earth	Aspenhorn	<input type="checkbox"/>	Jester	27	Orange	Duffergate		Warrior	White
Dewdrop	Flirtyshine	<input checked="" type="checkbox"/>	Swashbuckler	27	Cobalt	Bucklestein			Auburn
Trevan	Beechcrystal	<input checked="" type="checkbox"/>	Elementalist	25	Vanilla	Juggervale			
Karma	Frosttree	<input checked="" type="checkbox"/>	Gunslinger	25	Blond	Steward Citadel			
Hobath	Opalminer	<input type="checkbox"/>	Transmuter	25	Vanilla	Glockburgh			
Flamefang	Ancienteye	<input type="checkbox"/>	Ranger	24	Umber	Juggervale			
Aeden	Daisywink	<input type="checkbox"/>	Glazier	24	Lilac	Liontooth Keep			
Storm	Gemfreeze	<input type="checkbox"/>	Warlock	23	Satin	Prongwallow			
Moptop	Honeymeadow	<input type="checkbox"/>	Bard	23	Maroon	Sootgate			
Datgroug	Merrymail	<input type="checkbox"/>	Runecaster	23	Orange	Swartham			
Hesol	Vutsk	<input type="checkbox"/>	Transmuter	21	Obsidian	Boneburn			



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# Data Validation Checkboxes

[tinyurl.com/SpreadsheetSmarter](https://tinyurl.com/SpreadsheetSmarter)

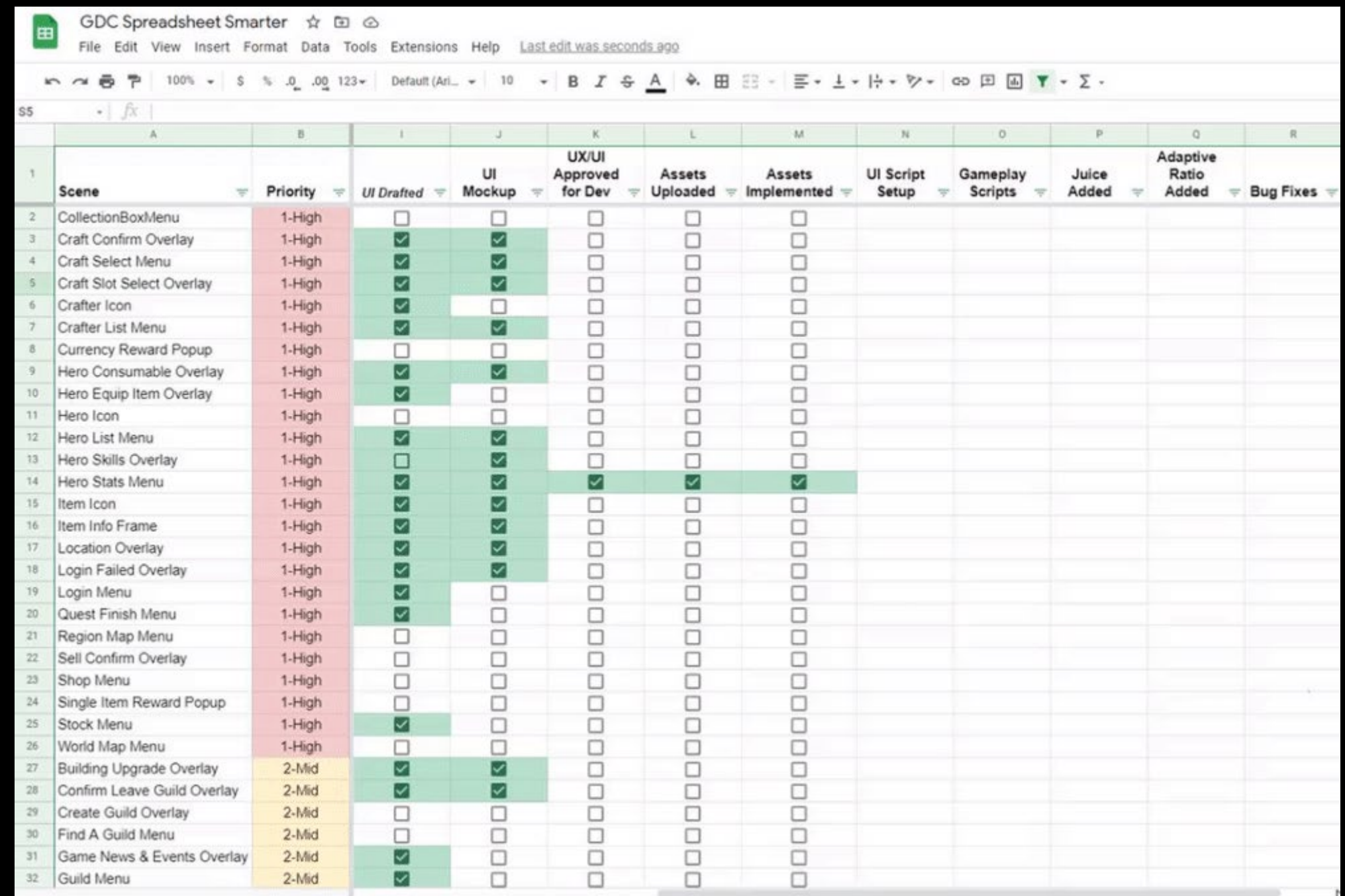


# Data Validation Checkboxes

You can create checkboxes (as seen in previous examples) with Data Validation.

Useful for pipeline and tasklists

By default they create “FALSE” and “TRUE” values in those cells, which can also be used in IF()



The screenshot shows a Google Sheet titled "GDC Spreadsheet Smarter" with a menu bar (File, Edit, View, Insert, Format, Data, Tools, Extensions, Help) and a toolbar. The sheet contains a tasklist with columns for various development tasks. The first column (A) lists the tasks, and the subsequent columns (B through R) contain checkboxes for tracking progress. The tasks are categorized by priority: 1-High (rows 2-26) and 2-Mid (rows 27-32). The checkboxes are green when checked and white when unchecked. The sheet also shows a formula bar with "=fx" and a status bar at the bottom.

	A	B	I	J	K	L	M	N	O	P	Q	R
1	Scene	Priority	UI Drafted	UI Mockup	UX/UI Approved for Dev	Assets Uploaded	Assets Implemented	UI Script Setup	Gameplay Scripts	Juice Added	Adaptive Ratio Added	Bug Fixes
2	CollectionBoxMenu	1-High	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
3	Craft Confirm Overlay	1-High	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
4	Craft Select Menu	1-High	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
5	Craft Slot Select Overlay	1-High	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
6	Crafter Icon	1-High	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
7	Crafter List Menu	1-High	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
8	Currency Reward Popup	1-High	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
9	Hero Consumable Overlay	1-High	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
10	Hero Equip Item Overlay	1-High	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
11	Hero Icon	1-High	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
12	Hero List Menu	1-High	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
13	Hero Skills Overlay	1-High	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
14	Hero Stats Menu	1-High	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					
15	Item Icon	1-High	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
16	Item Info Frame	1-High	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
17	Location Overlay	1-High	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
18	Login Failed Overlay	1-High	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
19	Login Menu	1-High	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
20	Quest Finish Menu	1-High	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
21	Region Map Menu	1-High	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
22	Sell Confirm Overlay	1-High	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
23	Shop Menu	1-High	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
24	Single Item Reward Popup	1-High	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
25	Stock Menu	1-High	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
26	World Map Menu	1-High	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
27	Building Upgrade Overlay	2-Mid	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
28	Confirm Leave Guild Overlay	2-Mid	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
29	Create Guild Overlay	2-Mid	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
30	Find A Guild Menu	2-Mid	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
31	Game News & Events Overlay	2-Mid	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
32	Guild Menu	2-Mid	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					

# Cell References in Formulas

“CELL” is representing a reference to cell, such as “A1”



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# Conditionals

[tinyurl.com/SpreadsheetSmarter](https://tinyurl.com/SpreadsheetSmarter)



**IF**(*CONDITION, IF\_TRUE, IF\_FALSE*)

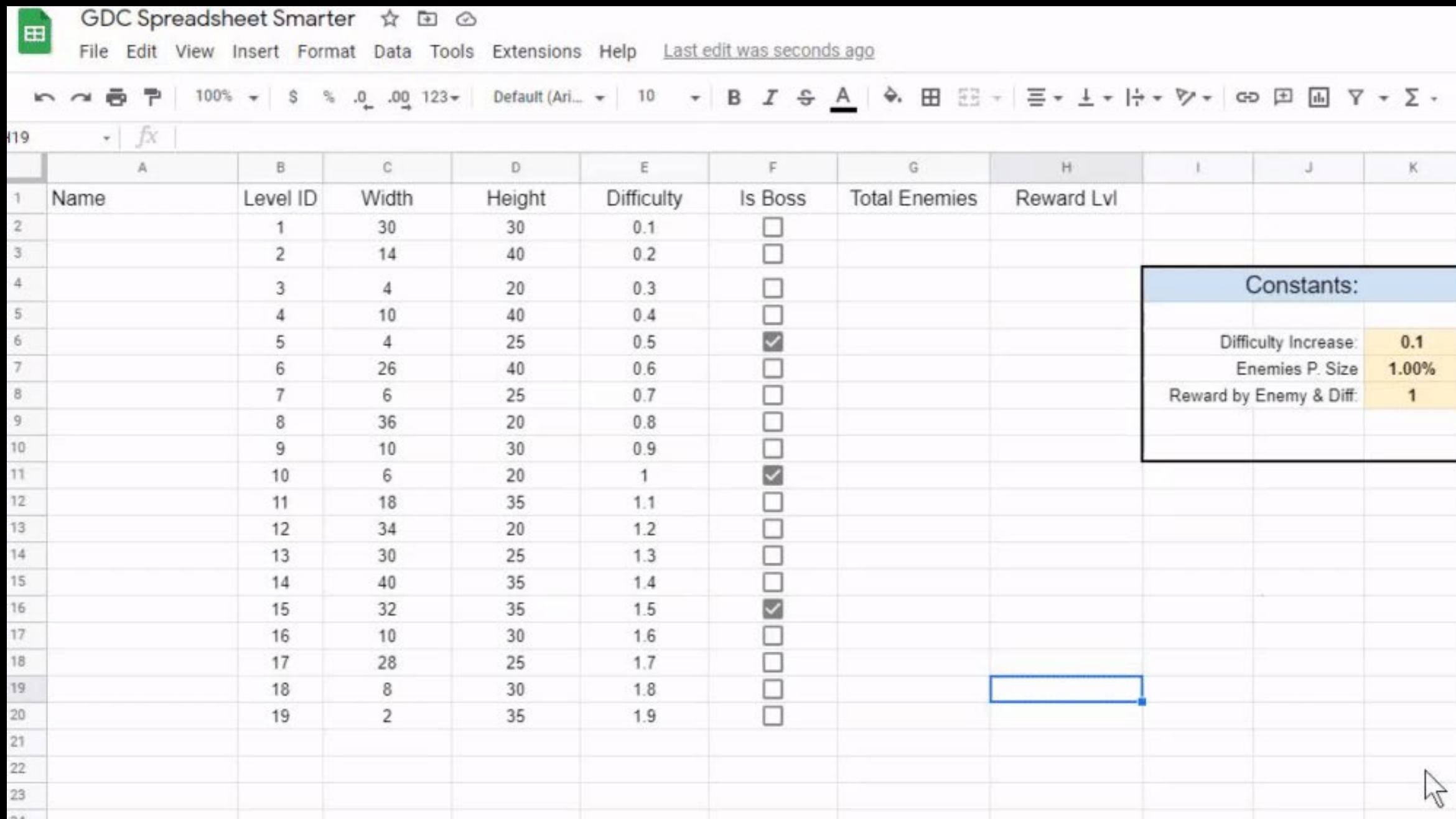
IF(*CELL* > 30, “Over 30”, “Under 30”)



=IF(CONDITION, IF\_TRUE,  
IF\_FALSE)

A basic condition,  
if TRUE, do X,  
otherwise do Y

*In this example, if the cell in  
Column F is true (checked)  
then it makes Total Enemies 1,  
otherwise it does a formula on  
the width and height to  
determine Total Enemies*



GDC Spreadsheet Smarter

File Edit View Insert Format Data Tools Extensions Help Last edit was seconds ago

100% \$ % .0 .00 123 Default (Ari... 10 B I A

	A	B	C	D	E	F	G	H	I	J	K
1	Name	Level ID	Width	Height	Difficulty	Is Boss	Total Enemies	Reward Lvl			
2		1	30	30	0.1	<input type="checkbox"/>					
3		2	14	40	0.2	<input type="checkbox"/>					
4		3	4	20	0.3	<input type="checkbox"/>					
5		4	10	40	0.4	<input type="checkbox"/>					
6		5	4	25	0.5	<input checked="" type="checkbox"/>					
7		6	26	40	0.6	<input type="checkbox"/>					
8		7	6	25	0.7	<input type="checkbox"/>					
9		8	36	20	0.8	<input type="checkbox"/>					
10		9	10	30	0.9	<input type="checkbox"/>					
11		10	6	20	1	<input checked="" type="checkbox"/>					
12		11	18	35	1.1	<input type="checkbox"/>					
13		12	34	20	1.2	<input type="checkbox"/>					
14		13	30	25	1.3	<input type="checkbox"/>					
15		14	40	35	1.4	<input type="checkbox"/>					
16		15	32	35	1.5	<input checked="" type="checkbox"/>					
17		16	10	30	1.6	<input type="checkbox"/>					
18		17	28	25	1.7	<input type="checkbox"/>					
19		18	8	30	1.8	<input type="checkbox"/>					
20		19	2	35	1.9	<input type="checkbox"/>					
21											
22											
23											
24											

**Constants:**  
Difficulty Increase: 0.1  
Enemies P. Size 1.00%  
Reward by Enemy & Diff: 1

=IF( F2, 1, \$K\$6 \* (C2 \* D2) )



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# IF(ISBLANK(*CELL*), *IF\_BLANK*, *IF\_DATA*)

*A way to change formulas if a reference cell is blank*



**IF**(ISBLANK(*A2*), *B2*, *A2* \* *B2*)

*If A2 is empty, then use B2. If not, use A2 \* B2*

# COUNTIF(Range, Criteria)



# COUNTIF()

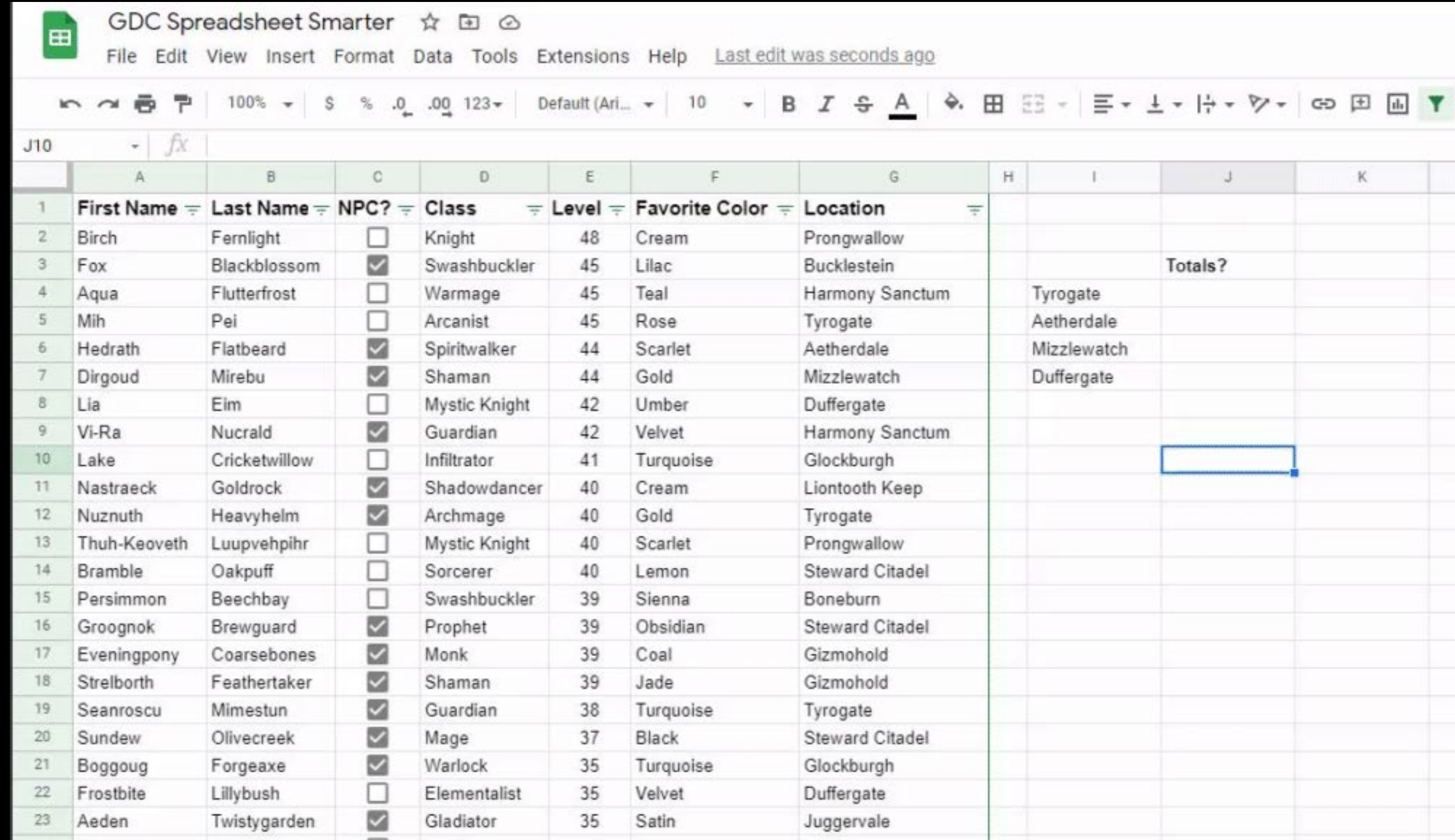
Used to count or sum values of a certain condition in a range

*“How many rows of my data have X in column Y?”*

*“How many tasks are assigned to Dev?”*

*“How many items with the type Sword are in this loot table?”*

*“How many assets are marked for Ready for Unwrap?”*



GDC Spreadsheet Smarter

File Edit View Insert Format Data Tools Extensions Help Last edit was seconds ago

100% \$ % .0 .00 123 Default (Ari... 10 B I S A

	A	B	C	D	E	F	G	H	I	J	K
1	First Name	Last Name	NPC?	Class	Level	Favorite Color	Location				
2	Birch	Fernlight	<input type="checkbox"/>	Knight	48	Cream	Prongwallow				
3	Fox	Blackblossom	<input checked="" type="checkbox"/>	Swashbuckler	45	Lilac	Bucklestein			Totals?	
4	Aqua	Flutterfrost	<input type="checkbox"/>	Warmage	45	Teal	Harmony Sanctum		Tyrogate		
5	Mih	Pei	<input type="checkbox"/>	Arcanist	45	Rose	Tyrogate		Aetherdale		
6	Hedrath	Flatbeard	<input checked="" type="checkbox"/>	Spiritwalker	44	Scarlet	Aetherdale		Mizzlewatch		
7	Dirgoud	Mirebu	<input checked="" type="checkbox"/>	Shaman	44	Gold	Mizzlewatch		Duffergate		
8	Lia	Eim	<input type="checkbox"/>	Mystic Knight	42	Umber	Duffergate				
9	Vi-Ra	Nucrald	<input checked="" type="checkbox"/>	Guardian	42	Velvet	Harmony Sanctum				
10	Lake	Cricketwillow	<input type="checkbox"/>	Infiltrator	41	Turquoise	Glockburgh				
11	Nastraeck	Goldrock	<input checked="" type="checkbox"/>	Shadowdancer	40	Cream	Liontooth Keep				
12	Nuznuth	Heavyhelm	<input checked="" type="checkbox"/>	Archmage	40	Gold	Tyrogate				
13	Thuh-Keoveth	Luupvehpihr	<input type="checkbox"/>	Mystic Knight	40	Scarlet	Prongwallow				
14	Bramble	Oakpuff	<input type="checkbox"/>	Sorcerer	40	Lemon	Steward Citadel				
15	Persimmon	Beechbay	<input type="checkbox"/>	Swashbuckler	39	Sienna	Boneburn				
16	Groognok	Brewguard	<input checked="" type="checkbox"/>	Prophet	39	Obsidian	Steward Citadel				
17	Eveningpony	Coarsebones	<input checked="" type="checkbox"/>	Monk	39	Coal	Gizmohold				
18	Strelborth	Feathertaker	<input checked="" type="checkbox"/>	Shaman	39	Jade	Gizmohold				
19	Seanroscu	Mimestun	<input checked="" type="checkbox"/>	Guardian	38	Turquoise	Tyrogate				
20	Sundew	Olivecreek	<input checked="" type="checkbox"/>	Mage	37	Black	Steward Citadel				
21	Boggoug	Forgeaxe	<input checked="" type="checkbox"/>	Warlock	35	Turquoise	Glockburgh				
22	Frostbite	Lillybush	<input type="checkbox"/>	Elementalist	35	Velvet	Duffergate				
23	Aeden	Twistyarden	<input checked="" type="checkbox"/>	Gladiator	35	Satin	Juggervale				

# SUMIF() & AVERAGEIF()

*They have the same format*



SUMIF(Range, Criteria, Sum\_Range)

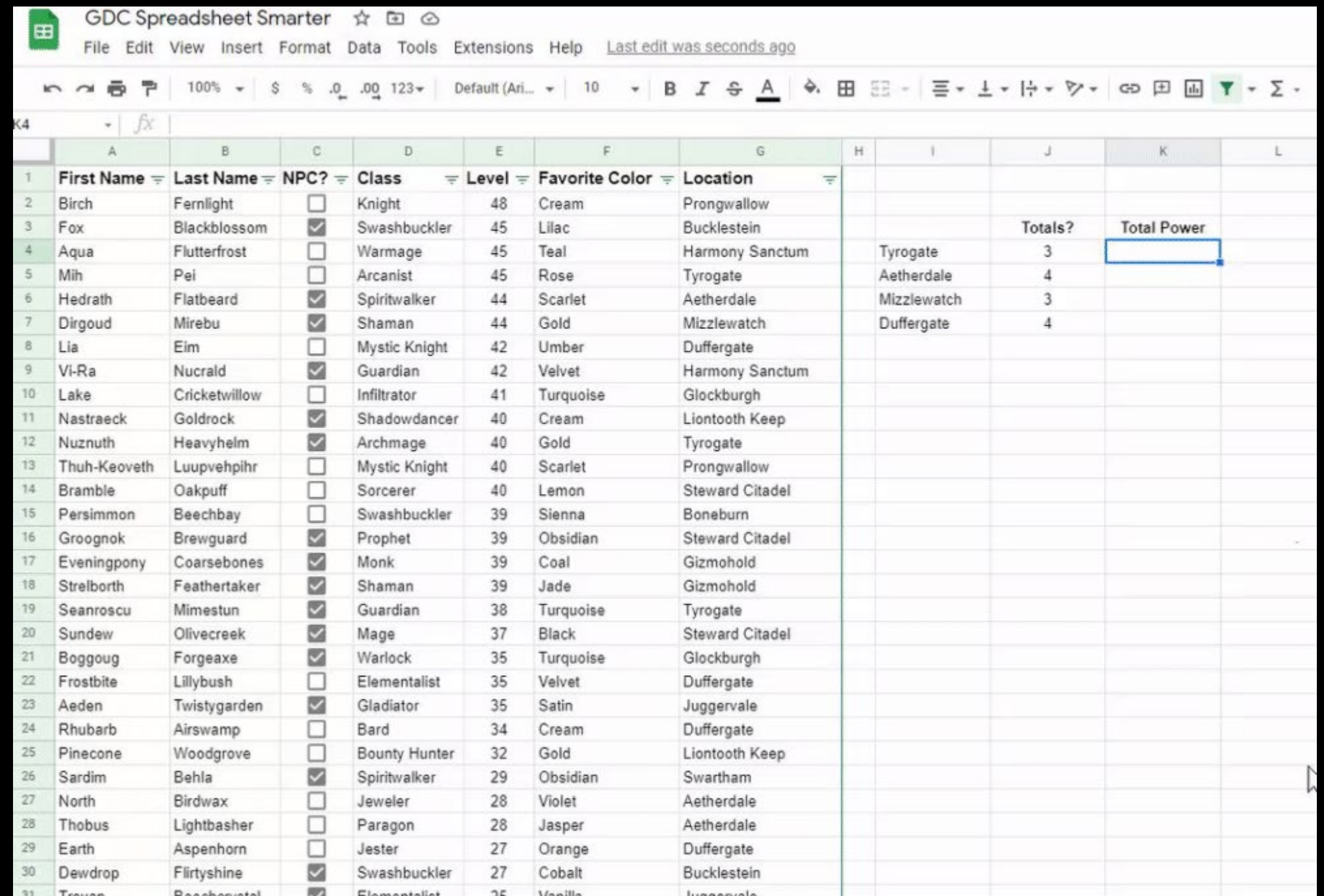
# SUMIF() & AVERAGEIF()

Can be used to sum or average all values when a condition is met on the same row

Instead of counting up one for each value, you can use a second range to sum or average the accepted rows

*“What is the average level of weapons in this item list”*

*“What is the total poly count of the prop assets in this list”*



	A	B	C	D	E	F	G	H	I	J	K	L
	First Name	Last Name	NPC?	Class	Level	Favorite Color	Location					
1	Birch	Fernlight	<input type="checkbox"/>	Knight	48	Cream	Prongwallow					
2	Fox	Blackblossom	<input checked="" type="checkbox"/>	Swashbuckler	45	Lilac	Bucklestein					
3	Aqua	Flutterfrost	<input type="checkbox"/>	Warmage	45	Teal	Harmony Sanctum					
4	Mih	Pei	<input type="checkbox"/>	Arcanist	45	Rose	Tyrogate		Tyrogate	3		
5	Hedrath	Flatbeard	<input checked="" type="checkbox"/>	Spiritwalker	44	Scarlet	Aetherdale		Aetherdale	4		
6	Dirgoud	Mirebu	<input checked="" type="checkbox"/>	Shaman	44	Gold	Mizzlewatch		Mizzlewatch	3		
7	Lia	Eim	<input type="checkbox"/>	Mystic Knight	42	Umber	Duffergate		Duffergate	4		
8	Vi-Ra	Nucrald	<input checked="" type="checkbox"/>	Guardian	42	Velvet	Harmony Sanctum					
9	Lake	Crick Willow	<input type="checkbox"/>	Infiltrator	41	Turquoise	Glockburgh					
10	Nastraek	Goldrock	<input checked="" type="checkbox"/>	Shadowdancer	40	Cream	Liontooth Keep					
11	Nuznuth	Heavyhelm	<input checked="" type="checkbox"/>	Archmage	40	Gold	Tyrogate					
12	Thuh-Keoveth	Luupvehpihr	<input type="checkbox"/>	Mystic Knight	40	Scarlet	Prongwallow					
13	Bramble	Oakpuff	<input type="checkbox"/>	Sorcerer	40	Lemon	Steward Citadel					
14	Persimmon	Beechbay	<input type="checkbox"/>	Swashbuckler	39	Sienna	Boneburn					
15	Groognok	Brewguard	<input checked="" type="checkbox"/>	Prophet	39	Obsidian	Steward Citadel					
16	Eveningpony	Coarsebones	<input checked="" type="checkbox"/>	Monk	39	Coal	Gizmohold					
17	Strelborth	Feathertaker	<input checked="" type="checkbox"/>	Shaman	39	Jade	Gizmohold					
18	Seanroscu	Mimestun	<input checked="" type="checkbox"/>	Guardian	38	Turquoise	Tyrogate					
19	Sundew	Olivecreek	<input checked="" type="checkbox"/>	Mage	37	Black	Steward Citadel					
20	Boggoug	Forgeaxe	<input checked="" type="checkbox"/>	Warlock	35	Turquoise	Glockburgh					
21	Frostbite	Lillybush	<input type="checkbox"/>	Elementalist	35	Velvet	Duffergate					
22	Aeden	Twistyarden	<input checked="" type="checkbox"/>	Gladiator	35	Satin	Juggervale					
23	Rhubarb	Airswamp	<input type="checkbox"/>	Bard	34	Cream	Duffergate					
24	Pinecone	Woodgrove	<input type="checkbox"/>	Bounty Hunter	32	Gold	Liontooth Keep					
25	Sardim	Behla	<input checked="" type="checkbox"/>	Spiritwalker	29	Obsidian	Swartham					
26	North	Birdwax	<input type="checkbox"/>	Jeweler	28	Violet	Aetherdale					
27	Thobus	Lightbasher	<input type="checkbox"/>	Paragon	28	Jasper	Aetherdale					
28	Earth	Aspenhorn	<input type="checkbox"/>	Jester	27	Orange	Duffergate					
29	Dewdrop	Flirtyshine	<input checked="" type="checkbox"/>	Swashbuckler	27	Cobalt	Bucklestein					
30	Trean	Beechcrystal	<input checked="" type="checkbox"/>	Elementalist	25	Vanilla	Juggervale					

Totals? Total Power



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# Cell Reference From Other Sheets

E2    fx    = ", descr = "" & Components!T2 & IF(ISBLANK(Components!U2), "", "\n" & Components!U2) & ""				
	A	B	C	E
1	local componentData = {}			
2	componentData["Iron Bar"] = {	name = "Iron Bar"	, class = "Component"	, subType = "Bar"
3	componentData["Hydrogen Power Core"] = {	name = "Hydrogen Power Core"	, class = "Component"	, subType = "Power Core"
4	componentData["Carbon Fiber"] = {	name = "Carbon Fiber"	, class = "Component"	, subType = "Fiber"
5	componentData["Oxygen Tank"] = {	name = "Oxygen Tank"	, class = "Component"	, subType = "Air Tank"
6	componentData["Circuit Board"] = {	name = "Circuit Board"	, class = "Component"	, subType = "Circuit Board"
7	componentData["Nitrogen Coolant"] = {	name = "Nitrogen Coolant"	, class = "Component"	, subType = "Coolant"
8	componentData["Targeting System"] = {	name = "Targeting System"	, class = "Component"	, subType = "Sensor"
9	componentData["Fuel Injector"] = {	name = "Fuel Injector"	, class = "Component"	, subType = "Injector"
10	componentData["Pulse Absorbers"] = {	name = "Pulse Absorbers"	, class = "Component"	, subType = "Absorber"
11	componentData["Hydrogen Ambiplasma"] = {	name = "Hydrogen Ambiplasma"	, class = "Component"	, subType = "Ambiplasma"
12	componentData["Tachyon Infuser"] = {	name = "Tachyon Infuser"	, class = "Component"	, subType = "Infuser"
13	componentData["Phazer Glass"] = {	name = "Phazer Glass"	, class = "Component"	, subType = "Glass"
14	componentData["Gravity Flooring"] = {	name = "Gravity Flooring"	, class = "Component"	, subType = "Flooring"
15	componentData["Air Filtration System"] = {	name = "Air Filtration System"	, class = "Component"	, subType = "Filtration"
16	componentData["Gimbal Stabilizer"] = {	name = "Gimbal Stabilizer"	, class = "Component"	, subType = "Stabilizer"
17	componentData["Ambient Speakers"] = {	name = "Ambient Speakers"	, class = "Component"	, subType = "Sound System"
18	componentData["Holographic Panel"] = {	name = "Holographic Panel"	, class = "Component"	, subType = "Screen"
19	componentData["Iron Plating"] = {	name = "Iron Plating"	, class = "Component"	, subType = "Plating"
20	componentData["Fiber Sheeting"] = {	name = "Fiber Sheeting"	, class = "Component"	, subType = "Sheeting"
21	componentData["Stasis Field"] = {	name = "Stasis Field"	, class = "Component"	, subType = "Stasis Field"
22	componentData["Vibration Dampeners"] = {	name = "Vibration Dampeners"	, class = "Component"	, subType = "Dampeners"
23	componentData["Hyperweave"] = {	name = "Hyperweave"	, class = "Component"	, subType = "Cloth"
24	componentData["Bastion Particles"] = {	name = "Bastion Particles"	, class = "Component"	, subType = "Particles"
25	componentData["Magnetic Particles"] = {	name = "Magnetic Particles"	, class = "Component"	, subType = "Particles"
26	componentData["Derilium Particles"] = {	name = "Derilium Particles"	, class = "Component"	, subType = "Particles"
27	componentData["Power Supply"] = {	name = "Power Supply"	, class = "Component"	, subType = "Power Core"
28	componentData["Space Engine"] = {	name = "Space Engine"	, class = "Component"	, subType = "Engine"
29	componentData["Power Supply II"] = {	name = "Power Supply II"	, class = "Component"	, subType = "Power Core"
30	componentData["Space Engine II"] = {	name = "Space Engine II"	, class = "Component"	, subType = "Engine"
31	componentData["AI Core"] = {	name = "AI Core"	, class = "Component"	, subType = "AI Core"
32	componentData["Iron Frame"] = {	name = "Iron Frame"	, class = "Component"	, subType = "Frame"

+ Components
COMPONENT\_DATA
Sheet4
ComponentsSXSW
Components\_FULL
Component Types
1 ImportedRanges

The Sheet Name as part of the Cell Reference, separated by a !



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# Fill Down/Right

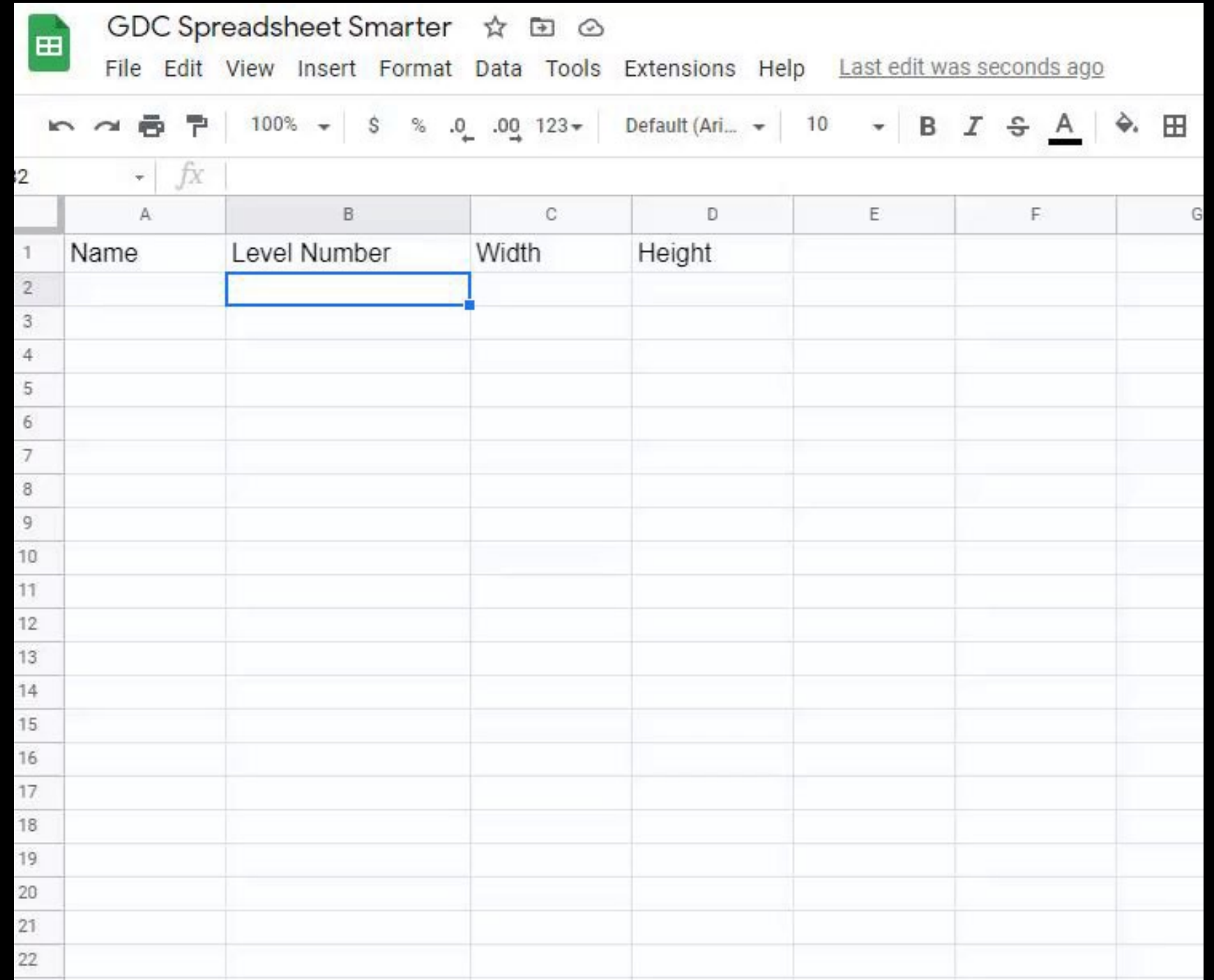
[tinyurl.com/SpreadsheetSmarter](https://tinyurl.com/SpreadsheetSmarter)

# Fill Down/Right

Fill Cells with Formulas with the cell references changing based on direction of the fill

Ctrl - D and Ctrl-R to fill a selection Down or to the Right, respectively

Can also use the blue corner rect



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## \$ROW\$COLUMN

*Locks a cell reference. Instead of A2 it's \$A\$2*

# \$ROW\$COLUMN

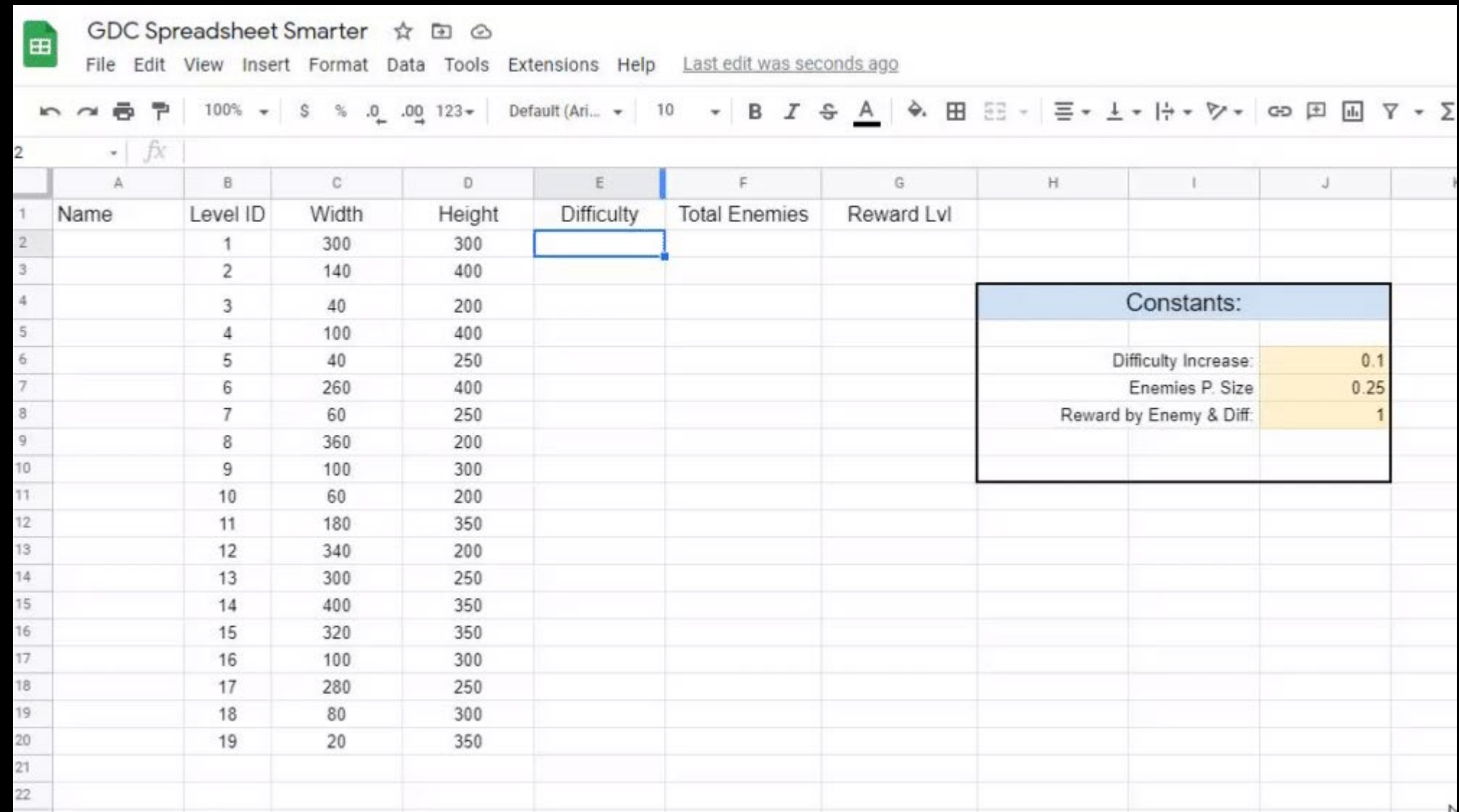
Great for static values that need to be referenced across a range of cells

\$ before the Row or Column values will lock those values when doing a fill

*Instead of C\$1 becoming C2, C3, C4 as you fill down, it stays as C1*

*Instead of \$A3 becoming B3, C3, D3 on a fill to the right, it stays at A3*

“= \$C\$1” can be filled across a whole sheet and still only reference C1



The screenshot shows a spreadsheet application titled "GDC Spreadsheet Smarter". The main table has columns: Name, Level ID, Width, Height, Difficulty, Total Enemies, and Reward Lvl. The data rows show levels 1 through 19. A "Constants" table is also visible, containing values for Difficulty Increase, Enemies P. Size, and Reward by Enemy & Diff.

Name	Level ID	Width	Height	Difficulty	Total Enemies	Reward Lvl
	1	300	300			
	2	140	400			
	3	40	200			
	4	100	400			
	5	40	250			
	6	260	400			
	7	60	250			
	8	360	200			
	9	100	300			
	10	60	200			
	11	180	350			
	12	340	200			
	13	300	250			
	14	400	350			
	15	320	350			
	16	100	300			
	17	280	250			
	18	80	300			
	19	20	350			

Constants:	
Difficulty Increase:	0.1
Enemies P. Size	0.25
Reward by Enemy & Diff:	1





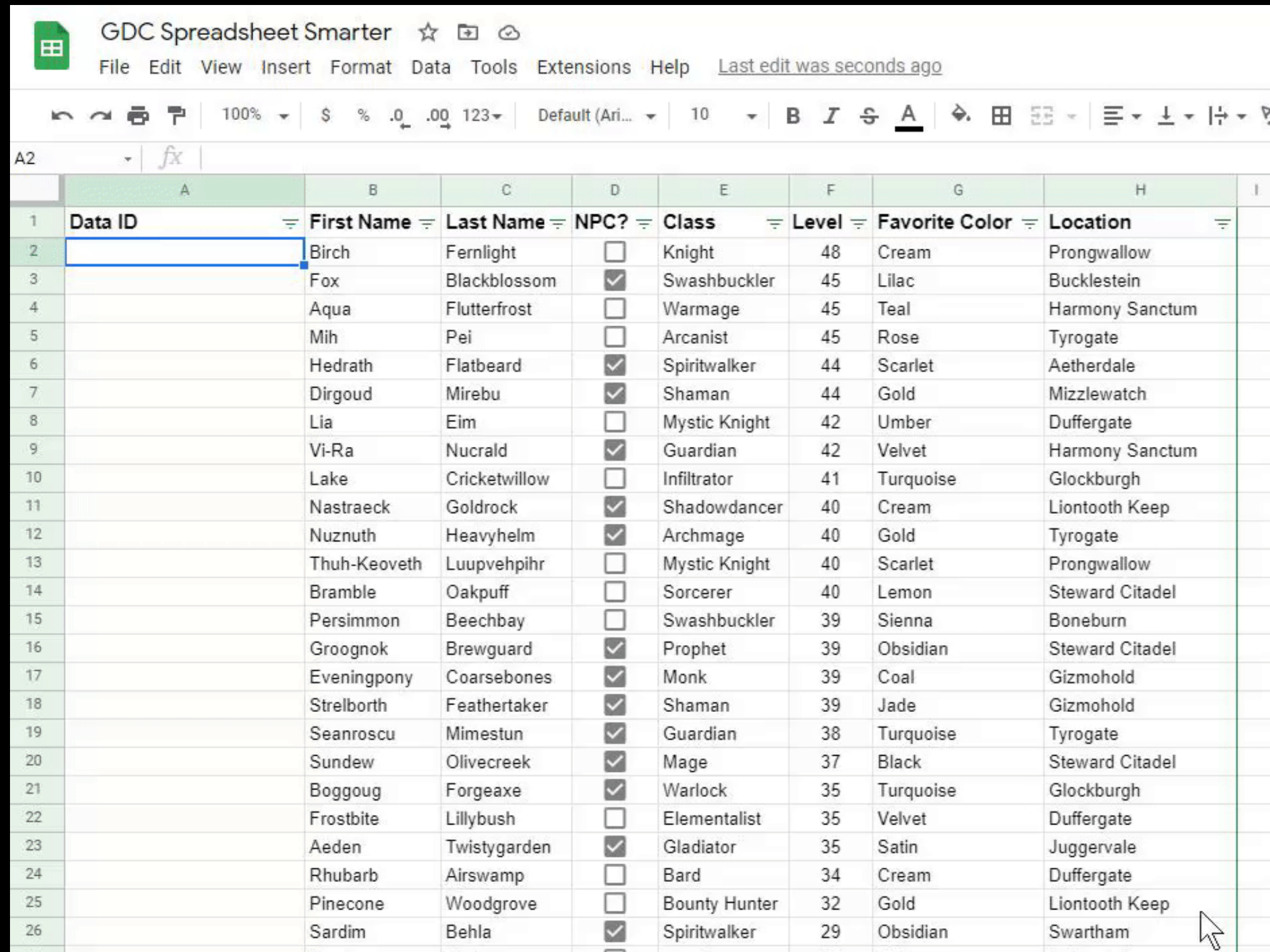
String Concat using '&'  
= "my value is " & CELL

= CELL & “ ” & CELL

Useful for creating content  
filenames and references

You can use strings and cell  
references together

= “Mesh/” & CELL & “\_OBJ”  
as a way to take an asset  
name and generate a  
filename with folder hierarchy  
baked in



GDC Spreadsheet Smarter

File Edit View Insert Format Data Tools Extensions Help Last edit was seconds ago

100% \$ % .0 .00 123 Default (Ari... 10 B I S A

	A	B	C	D	E	F	G	H
1	Data ID	First Name	Last Name	NPC?	Class	Level	Favorite Color	Location
2		Birch	Fernlight	<input type="checkbox"/>	Knight	48	Cream	Prongwallow
3		Fox	Blackblossom	<input checked="" type="checkbox"/>	Swashbuckler	45	Lilac	Bucklestein
4		Aqua	Flutterfrost	<input type="checkbox"/>	Warmage	45	Teal	Harmony Sanctum
5		Mih	Pei	<input type="checkbox"/>	Arcanist	45	Rose	Tyrogate
6		Hedrath	Flatbeard	<input checked="" type="checkbox"/>	Spiritwalker	44	Scarlet	Aetherdale
7		Dirgoud	Mirebu	<input checked="" type="checkbox"/>	Shaman	44	Gold	Mizzlewatch
8		Lia	Eim	<input type="checkbox"/>	Mystic Knight	42	Umber	Duffergate
9		Vi-Ra	Nucrald	<input checked="" type="checkbox"/>	Guardian	42	Velvet	Harmony Sanctum
10		Lake	Cricketwillow	<input type="checkbox"/>	Infiltrator	41	Turquoise	Glockburgh
11		Nastraeck	Goldrock	<input checked="" type="checkbox"/>	Shadowdancer	40	Cream	Liontooth Keep
12		Nuznuth	Heavyhelm	<input checked="" type="checkbox"/>	Archmage	40	Gold	Tyrogate
13		Thuh-Keoveth	Luupvehpihr	<input type="checkbox"/>	Mystic Knight	40	Scarlet	Prongwallow
14		Bramble	Oakpuff	<input type="checkbox"/>	Sorcerer	40	Lemon	Steward Citadel
15		Persimmon	Beechbay	<input type="checkbox"/>	Swashbuckler	39	Sienna	Boneburn
16		Groognok	Brewguard	<input checked="" type="checkbox"/>	Prophet	39	Obsidian	Steward Citadel
17		Eveningpony	Coarsebones	<input checked="" type="checkbox"/>	Monk	39	Coal	Gizmohold
18		Strelborth	Feathertaker	<input checked="" type="checkbox"/>	Shaman	39	Jade	Gizmohold
19		Seanroscu	Mimestun	<input checked="" type="checkbox"/>	Guardian	38	Turquoise	Tyrogate
20		Sundew	Olivecreek	<input checked="" type="checkbox"/>	Mage	37	Black	Steward Citadel
21		Boggoug	Forgeaxe	<input checked="" type="checkbox"/>	Warlock	35	Turquoise	Glockburgh
22		Frostbite	Lillybush	<input type="checkbox"/>	Elementalist	35	Velvet	Duffergate
23		Aeden	Twistyarden	<input checked="" type="checkbox"/>	Gladiator	35	Satin	Juggervale
24		Rhubarb	Airswamp	<input type="checkbox"/>	Bard	34	Cream	Duffergate
25		Pinecone	Woodgrove	<input type="checkbox"/>	Bounty Hunter	32	Gold	Liontooth Keep
26		Sardim	Behla	<input checked="" type="checkbox"/>	Spiritwalker	29	Obsidian	Swartham



**=LOWER(SUBSTITUTE(CELL," ","\_"))**

*Lower snake case, "Big Rock 01" becomes "big\_rock\_01"*

GDC

# VLOOKUP()

[tinyurl.com/SpreadsheetSmarter](https://tinyurl.com/SpreadsheetSmarter)



= VLOOKUP(Ref,  
Range, Index)

Great for looking up a Cell's  
additional values in a tables

Used to look up a specific value  
in a table, then find a value to  
the right of it.

=VLOOKUP(CELL,  
COLUMN:COLUMN, NUMBER, *FALSE*)

INDEX is the amount of  
columns over from the first one.  
In the example, the data is in  
column G, the 7th column over

							< Tap on the ▼ in the headers to select sort and filter options			
First Name	Last Name	Trader?	Class	Level	Favorite Color	NPC Location	< The arrows in these rows allow you to select from the Data Validation Ranges, which can be found in Columns Q - S			
Rhubarb	Airswamp	<input type="checkbox"/>	Bard	12	Cream	Duffergate				
Flamefang	Ancienteye	<input type="checkbox"/>	Ranger	24	Umber	Juggervale				
Earth	Aspenhorn	<input type="checkbox"/>	Jester	13	Auburn	Duffergate				
Ragerabbit	Badsmirk	<input type="checkbox"/>	Spiritwalker	15	Indigo	Mizzlewatch				
Stirgirk	Battleflaw	<input checked="" type="checkbox"/>	Marauder	20	Obsidian	Harmony Sanctum				
Persimmon	Beechbay	<input type="checkbox"/>	Swashbuckler	39	Turquoise	Boneburn				
Trevan	Beechcrystal	<input checked="" type="checkbox"/>	Elementalist	25	Almond	Juggervale				
Sardim	Behla	<input checked="" type="checkbox"/>	Spiritwalker	29	Obsidian	Swartham				
North	Birdwax	<input type="checkbox"/>	Runecaster	28	Violet	Aetherdale				
Fox	Blackblossom	<input checked="" type="checkbox"/>	Swashbuckler	45	Lilac	Bucklestein				
Groognok	Brewguard	<input checked="" type="checkbox"/>	Prophet	39	Obsidian	Steward Citadel				
Nem	Chardev	<input type="checkbox"/>	Warlock	20	Teal	Bucklestein				
Eveningpony	Coarsebones	<input checked="" type="checkbox"/>	Monk	39	Gold	Gizmohold				
Lake	Cricketwillow	<input type="checkbox"/>	Infiltrator	41	Turquoise	Glockburgh				
Aeden	Daisywink	<input type="checkbox"/>	Bard	24	Lilac	Liontooth Keep				
Blem	Dewhand	<input checked="" type="checkbox"/>	Arcanist	9	Jade	Gizmohold				
Lia	Eim	<input type="checkbox"/>	Mystic Knight	10	Umber	Duffergate				
Strelborth	Feathertaker	<input checked="" type="checkbox"/>	Ranger	39	Jade	Gizmohold				
Birch	Fernlight	<input type="checkbox"/>	Knight	48	Cream	Prongwallow				
Hedrath	Flatbeard	<input checked="" type="checkbox"/>	Spiritwalker	44	Scarlet	Aetherdale				
Dewdrop	Flirtyshine	<input checked="" type="checkbox"/>	Swashbuckler	27	Cobalt	Bucklestein				
Aqua	Flutterfrost	<input type="checkbox"/>	Warmage	45	Teal	Harmony Sanctum				
Boggoug	Forgeaxe	<input checked="" type="checkbox"/>	Warlock	35	Turquoise	Glockburgh				
Karma	Frosttree	<input checked="" type="checkbox"/>	Gunslinger	25	Maroon	Steward Citadel				
Storm	Gemfreeze	<input type="checkbox"/>	Warlock	23	Satin	Prongwallow				
Nastraeck	Goldrock	<input checked="" type="checkbox"/>	Arcanist	40	Cream	Tyrogate				
Nuznuth	Heavyhelm	<input checked="" type="checkbox"/>	Archmage	40	Gold	Tyrogate				
Moptop	Honeymeadow	<input type="checkbox"/>	Bard	23	Maroon	Sootgate				
Arus	Isunda	<input type="checkbox"/>	Sorcerer	6	Auburn	Swartham				
Thobus	Lightbasher	<input type="checkbox"/>	Paragon	28	Jasper	Aetherdale				
Bonepelt	Lightcrest	<input type="checkbox"/>	Guardian	20	Jade	Sootgate				
Frostbite	Lillybush	<input type="checkbox"/>	Elementalist	15	Cobalt	Duffergate				
Thuh-Keoveth	Luupvehihr	<input type="checkbox"/>	Mystic Knight	40	Scarlet	Prongwallow				
Ridge	Meadowglade	<input checked="" type="checkbox"/>	Elementalist	18	Jasper	Juggervale				

VLOOKUP Example

Party Setup	Class	Level	Location
Lia	Mystic Knight	10	
Rhubarb			
Bonepelt			

=VLOOKUP(\$I8, \$A:\$G, 7, FALSE)

# Export Sheet Data

[tinyurl.com/ExportSheetData](https://tinyurl.com/ExportSheetData)

[tinyurl.com/SpreadsheetSmarter](https://tinyurl.com/SpreadsheetSmarter)



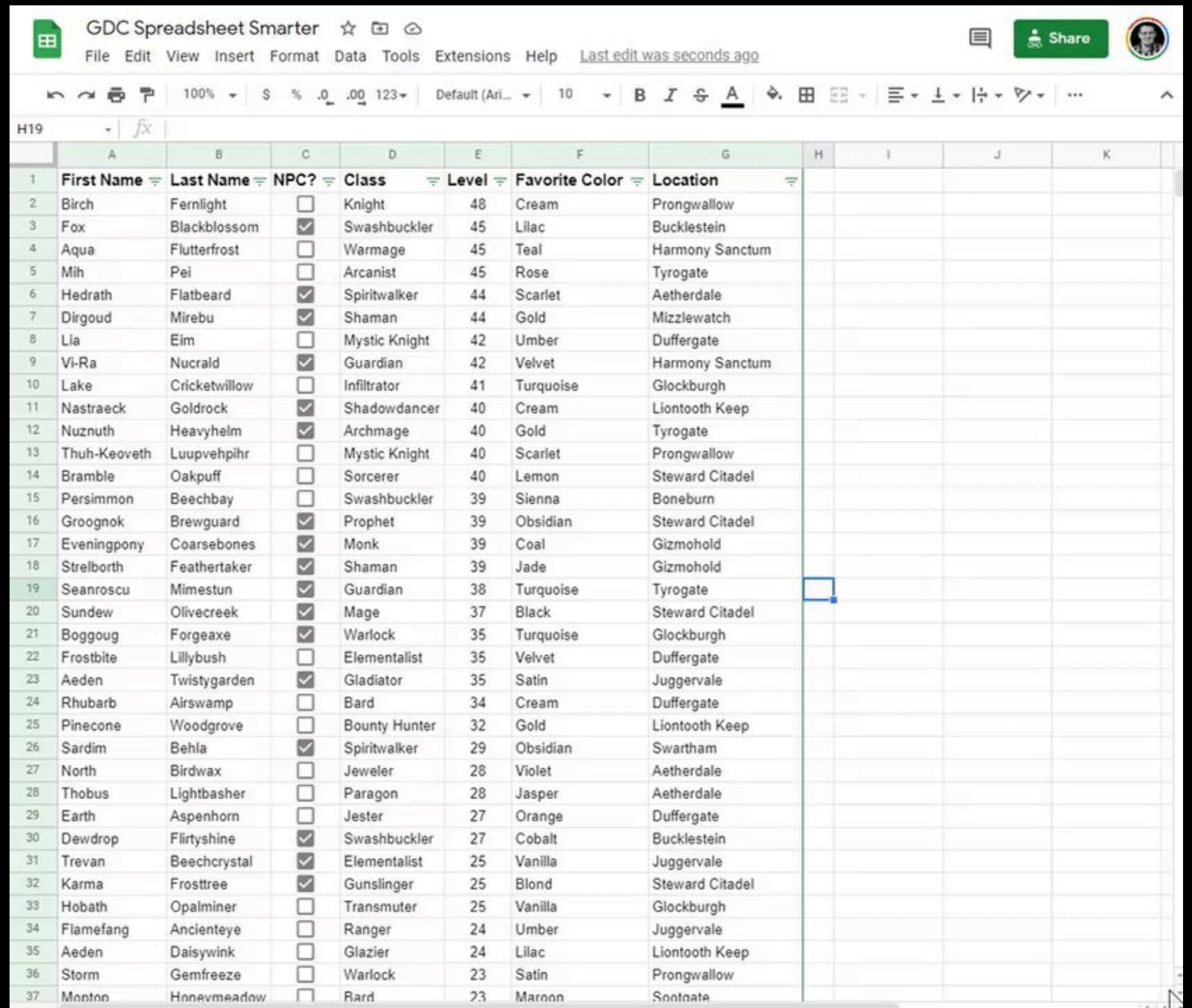
# Export Sheet Data

[tinyurl.com/ExportSheetData](https://tinyurl.com/ExportSheetData)

A useful addon to Google Sheets that allows you to export a sheet or selection into JSON or XML

Lots of settings and options to get the right data format

*If you already know why having content output to XML or JSON is helpful, then this addon is for you*



The screenshot shows the 'GDC Spreadsheet Smarter' Google Sheets interface. The menu bar includes File, Edit, View, Insert, Format, Data, Tools, Extensions, and Help. The status bar indicates 'Last edit was seconds ago'. The toolbar shows various editing and formatting tools. The spreadsheet contains a table with the following data:

	A	B	C	D	E	F	G	H	I	J	K
1	First Name	Last Name	NPC?	Class	Level	Favorite Color	Location				
2	Birch	Fernlight	<input type="checkbox"/>	Knight	48	Cream	Prongwallow				
3	Fox	Blackblossom	<input checked="" type="checkbox"/>	Swashbuckler	45	Lilac	Bucklestein				
4	Aqua	Flutterfrost	<input type="checkbox"/>	Warmage	45	Teal	Harmony Sanctum				
5	Mih	Pei	<input type="checkbox"/>	Arcanist	45	Rose	Tyrogate				
6	Hedrath	Flatbeard	<input checked="" type="checkbox"/>	Spiritwalker	44	Scarlet	Aetherdale				
7	Dirgoud	Mirebu	<input checked="" type="checkbox"/>	Shaman	44	Gold	Mizzlewatch				
8	Lia	Eim	<input type="checkbox"/>	Mystic Knight	42	Umber	Duffergate				
9	Vi-Ra	Nucrald	<input checked="" type="checkbox"/>	Guardian	42	Velvet	Harmony Sanctum				
10	Lake	Cricketwillow	<input type="checkbox"/>	Infiltrator	41	Turquoise	Glockburgh				
11	Nastraeck	Goldrock	<input checked="" type="checkbox"/>	Shadowdancer	40	Cream	Liontooth Keep				
12	Nuznuth	Heavyhelm	<input checked="" type="checkbox"/>	Archmage	40	Gold	Tyrogate				
13	Thuh-Keoveth	Luupvehpihr	<input type="checkbox"/>	Mystic Knight	40	Scarlet	Prongwallow				
14	Bramble	Oakpuff	<input type="checkbox"/>	Sorcerer	40	Lemon	Steward Citadel				
15	Persimmon	Beechbay	<input type="checkbox"/>	Swashbuckler	39	Sienna	Boneburn				
16	Groognok	Brewguard	<input checked="" type="checkbox"/>	Prophet	39	Obsidian	Steward Citadel				
17	Eveningpony	Coarsebones	<input checked="" type="checkbox"/>	Monk	39	Coal	Gizmohold				
18	Strelborth	Feathertaker	<input checked="" type="checkbox"/>	Shaman	39	Jade	Gizmohold				
19	Seanroscu	Mimestun	<input checked="" type="checkbox"/>	Guardian	38	Turquoise	Tyrogate				
20	Sundew	Olivecreek	<input checked="" type="checkbox"/>	Mage	37	Black	Steward Citadel				
21	Boggoug	Forgeaxe	<input checked="" type="checkbox"/>	Warlock	35	Turquoise	Glockburgh				
22	Frostbite	Lillybush	<input type="checkbox"/>	Elementalist	35	Velvet	Duffergate				
23	Aeden	Twistygarden	<input checked="" type="checkbox"/>	Gladiator	35	Satin	Juggervale				
24	Rhubarb	Airswamp	<input type="checkbox"/>	Bard	34	Cream	Duffergate				
25	Pinecone	Woodgrove	<input type="checkbox"/>	Bounty Hunter	32	Gold	Liontooth Keep				
26	Sardim	Behla	<input checked="" type="checkbox"/>	Spiritwalker	29	Obsidian	Swartham				
27	North	Birdwax	<input type="checkbox"/>	Jeweler	28	Violet	Aetherdale				
28	Thobus	Lightbasher	<input type="checkbox"/>	Paragon	28	Jasper	Aetherdale				
29	Earth	Aspenhorn	<input type="checkbox"/>	Jester	27	Orange	Duffergate				
30	Dewdrop	Flirtyshine	<input checked="" type="checkbox"/>	Swashbuckler	27	Cobalt	Bucklestein				
31	Trevan	Beechcrystal	<input checked="" type="checkbox"/>	Elementalist	25	Vanilla	Juggervale				
32	Karma	Frosttree	<input checked="" type="checkbox"/>	Gunslinger	25	Blond	Steward Citadel				
33	Hobath	Opalminer	<input type="checkbox"/>	Transmuter	25	Vanilla	Glockburgh				
34	Flamefang	Ancienteye	<input type="checkbox"/>	Ranger	24	Umber	Juggervale				
35	Aeden	Daisywink	<input type="checkbox"/>	Glazier	24	Lilac	Liontooth Keep				
36	Storm	Gemfreeze	<input type="checkbox"/>	Warlock	23	Satin	Prongwallow				
37	Menton	Honevmeadow	<input type="checkbox"/>	Bard	23	Maroon	Sootnate				



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# Google Sheets [Code Button]

[tinyurl.com/SpreadsheetSmarter](https://tinyurl.com/SpreadsheetSmarter)



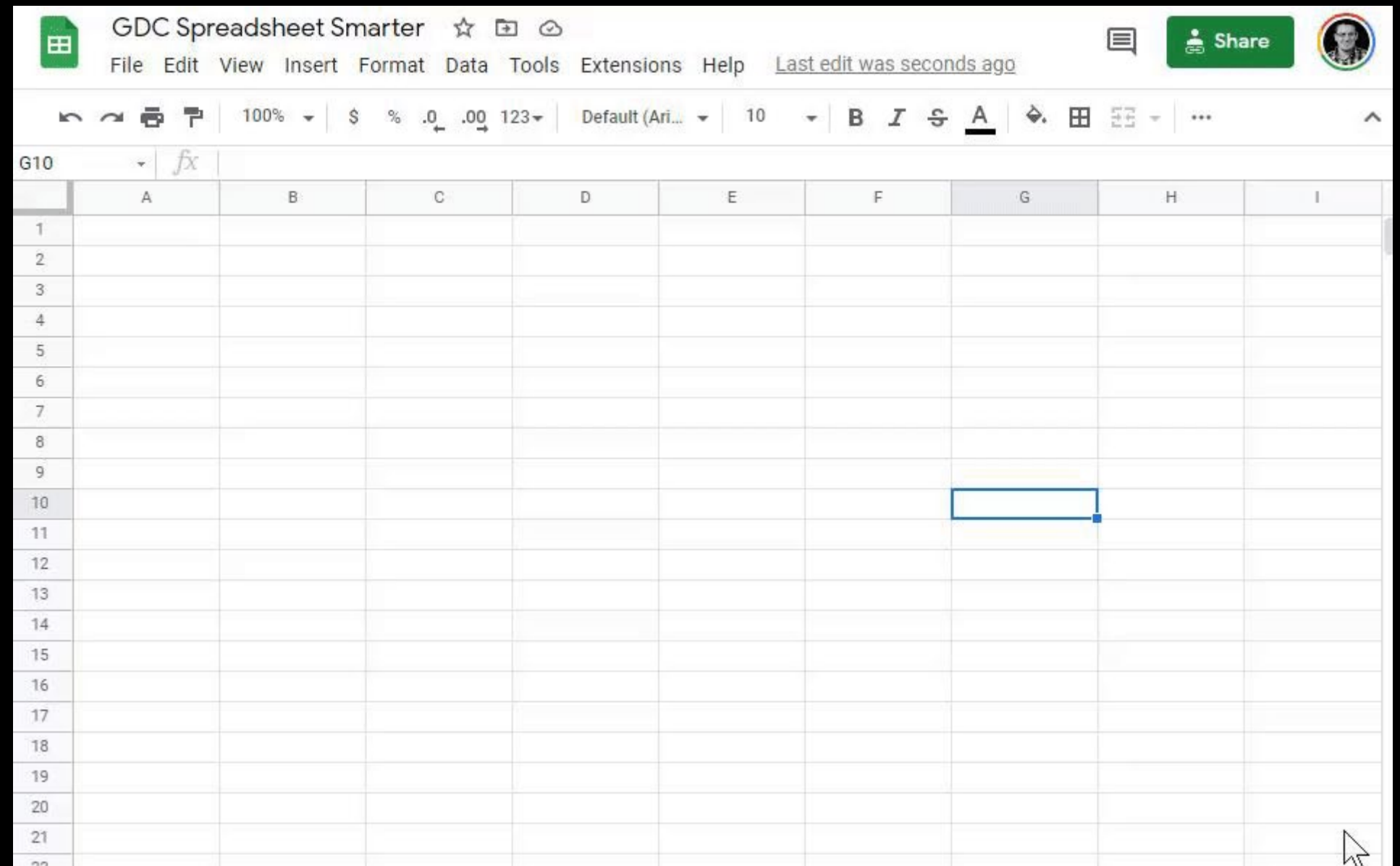
# Google Sheets [Code Button]

Create a button on your Sheet using a Drawing and GS code (Javascript)

Access GS scripts from  
Extensions > App Scripts

Once assigned, the button will  
trigger the function to run

Great for validating extensive data  
& sending to an external source



The GDC logo is positioned at the top center of the slide. The background of the entire slide is a dark space-themed illustration featuring various celestial bodies: a large purple planet with a blue and white patterned surface on the left, a ringed planet with purple and pink rings on the right, and several smaller dark planets and moons scattered throughout. Thin white lines represent orbital paths or constellations against a deep blue and black background with small white stars.

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Fin.

[tinyurl.com/SpreadsheetSmarter](https://tinyurl.com/SpreadsheetSmarter)