

Beating the Content Treadmill: Using Procedural Design in AdVenture Capitalist

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The Live-Ops Journey

Takeaway goal: best practices and design learnings when iterating on a feature.



1. DATA



2. HYPOTHESIS



3. SOLUTION



4. TEST



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What is Adventure Capitalist?



GAMEPLAY:

Progress Bars

MAIN PLATFORMS:

iOS, Android

GENRE:

Incremental Idle Clicker



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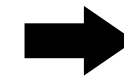
AdCap Limited Time Events



**LIMITED TIME
EVENTS**



EARN CASH



LEADERBOARDS



1. DATA



2. HYPOTHESIS



3. SOLUTION



4. TEST



1. DATA



2. HYPOTHESIS



3. SOLUTION



4. TEST

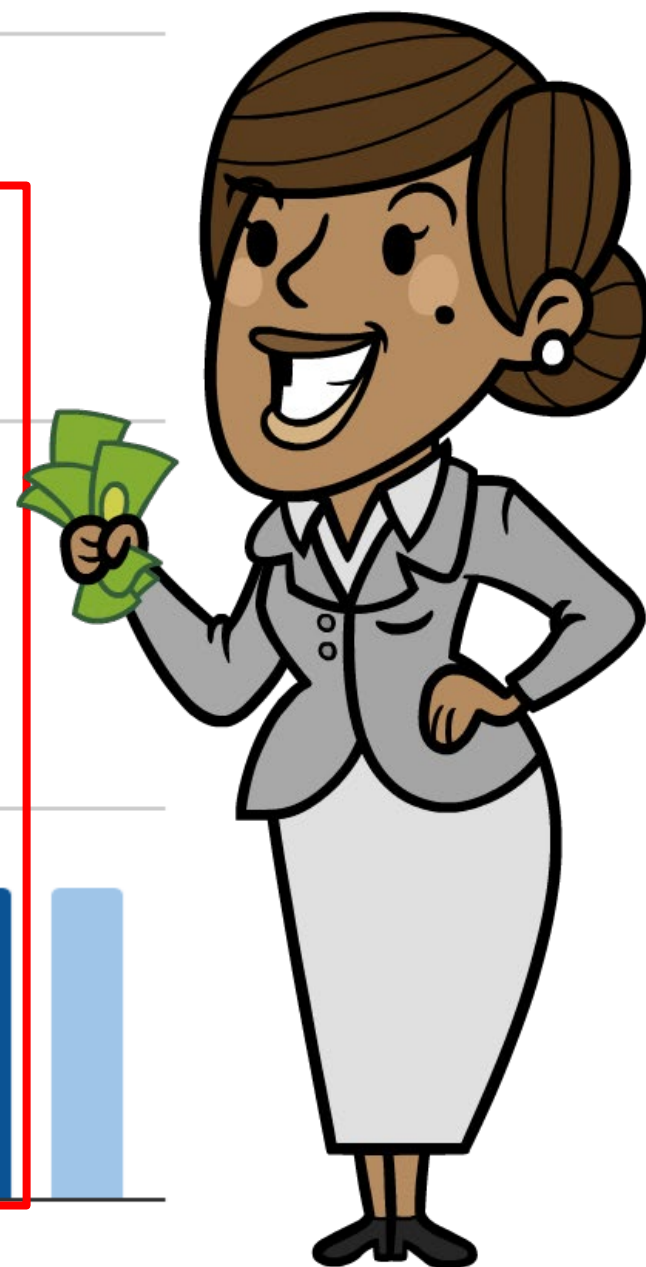
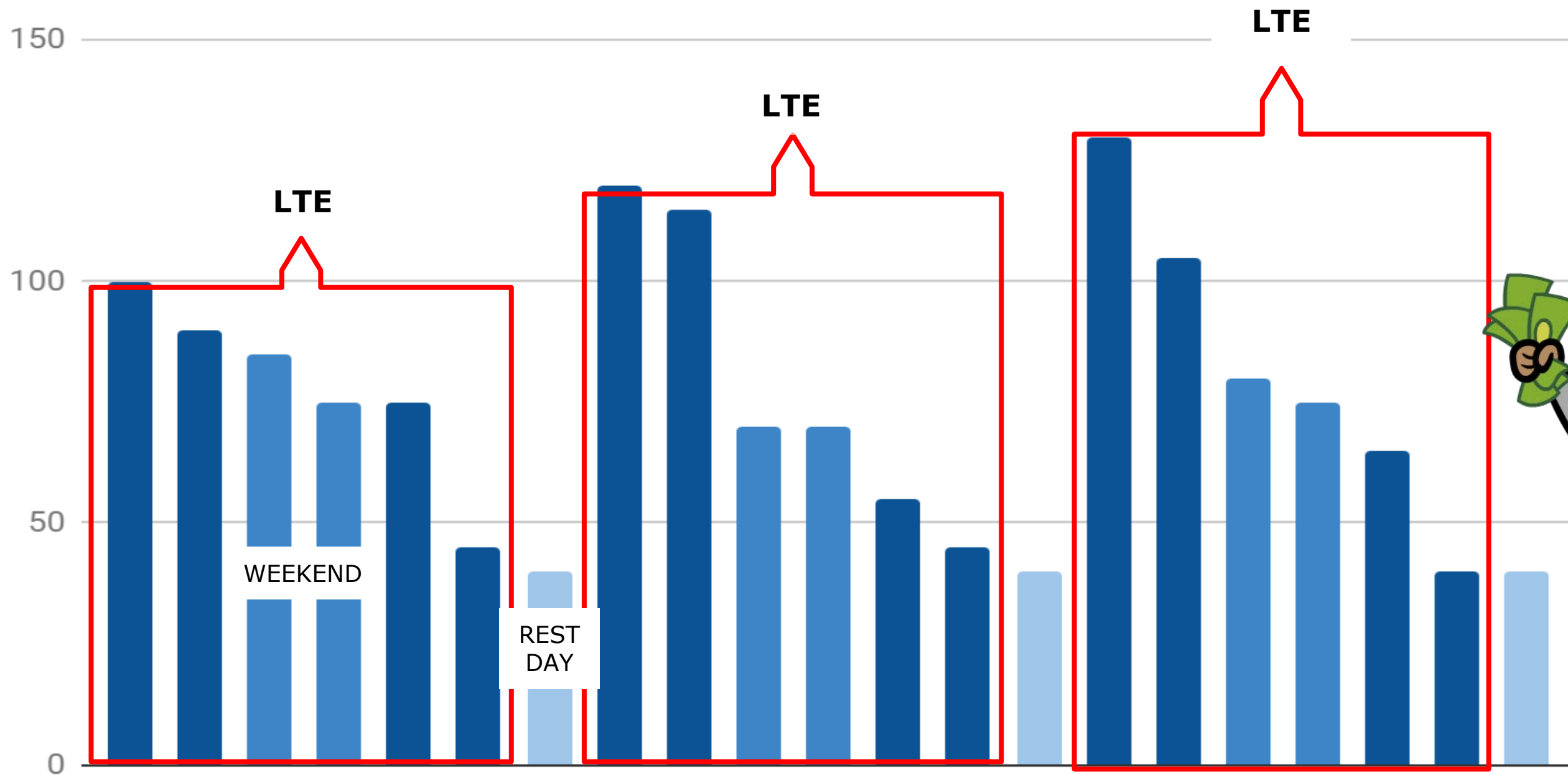


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Identifying Low Performance Indicators

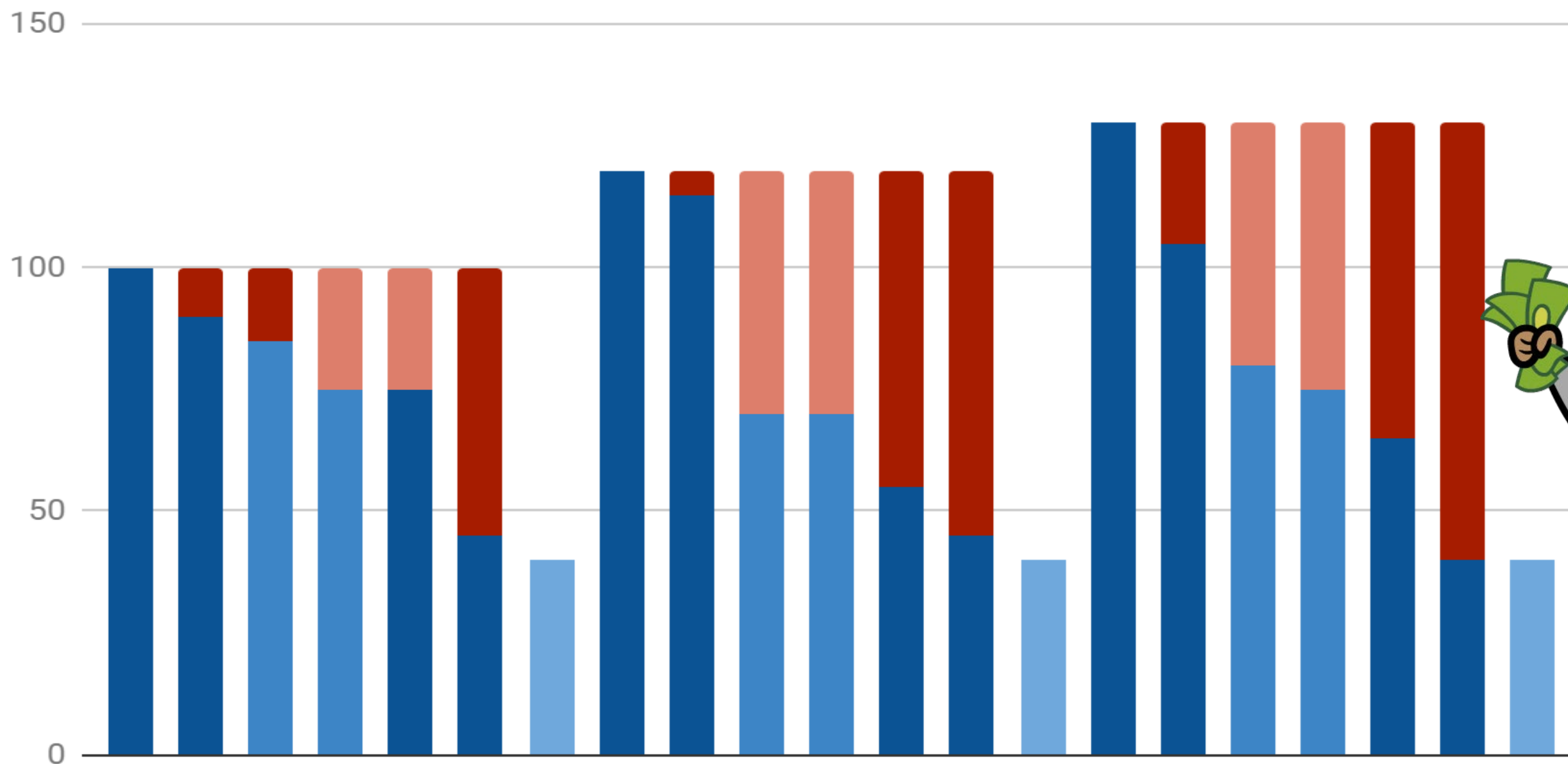


Revenues by day of the week

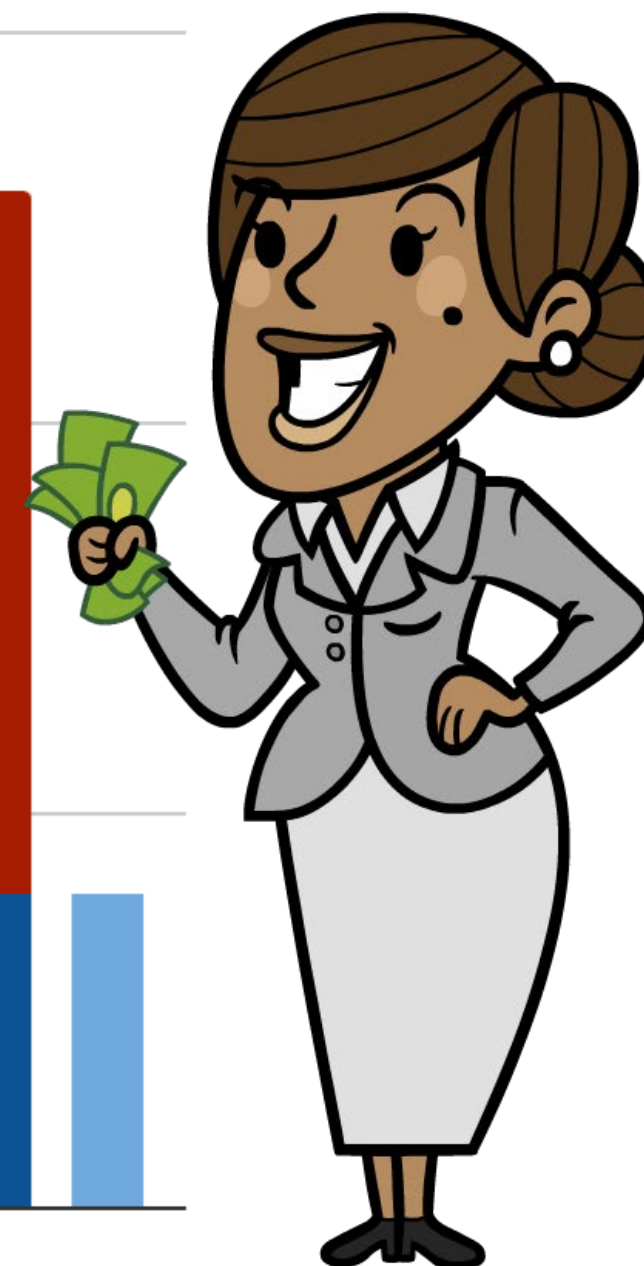




Identifying Low Performance Indicators



Revenues by day of the week

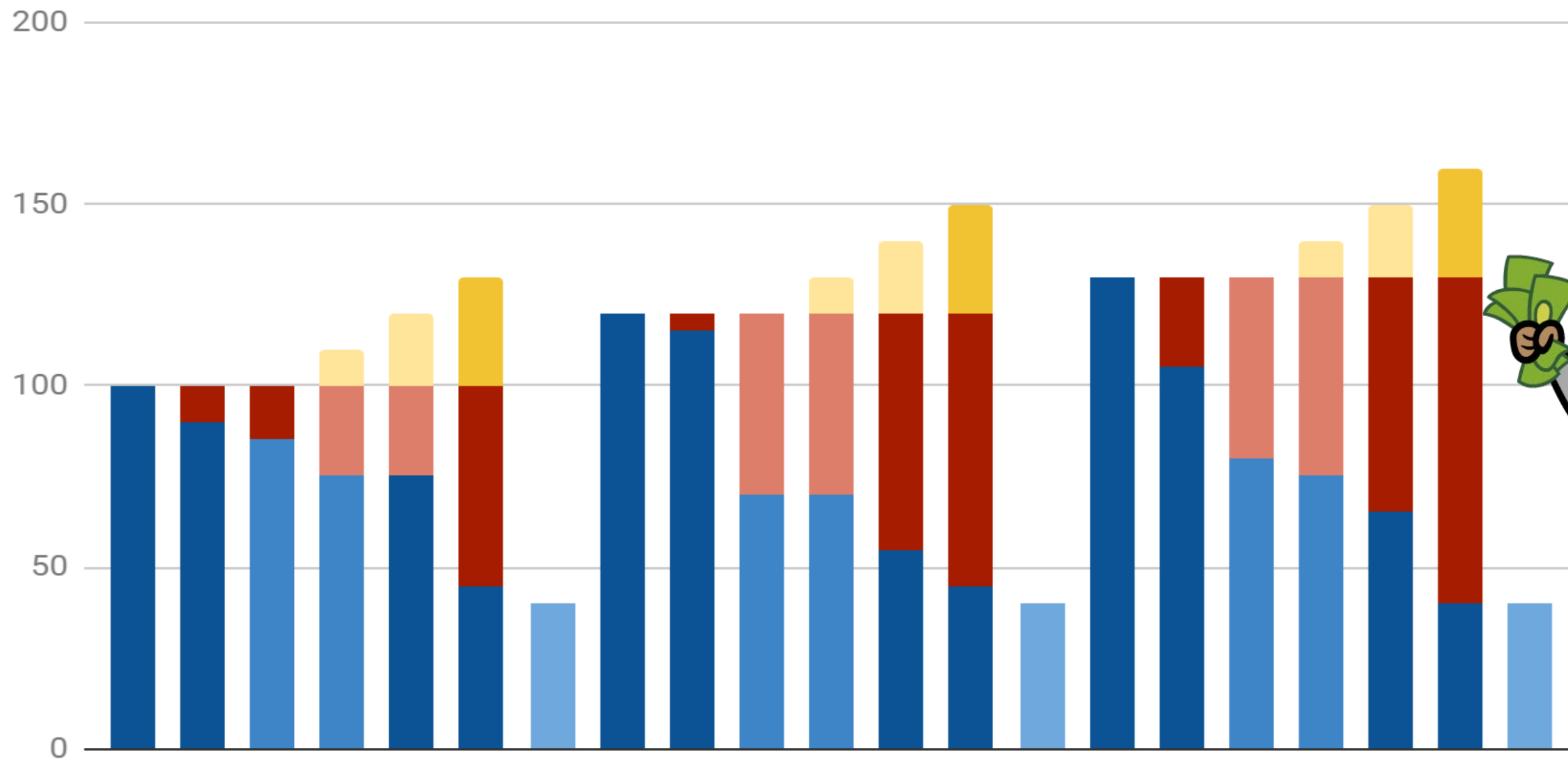


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Identifying Low Performance Indicators



Revenues by day of the week



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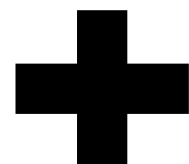
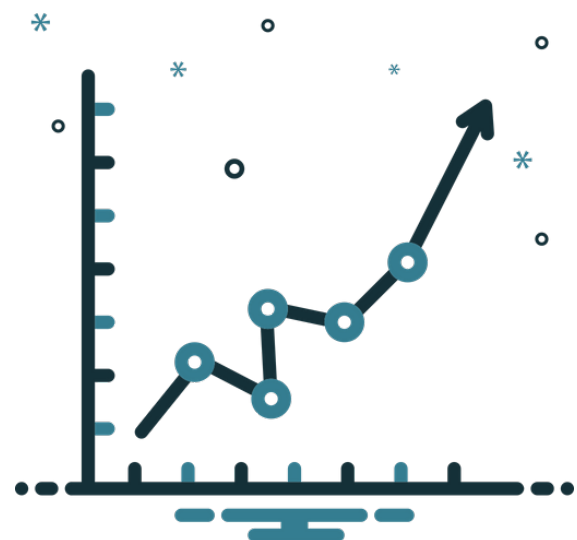
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Setting an Hypothesis

INCREMENTAL
NATURE



PERMANENT
MULTIPLIERS



PROGRESSION BASED
LEADERBOARD



SPEND AND
COAST



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1. DATA



2. HYPOTHESIS



3. SOLUTION



4. TEST



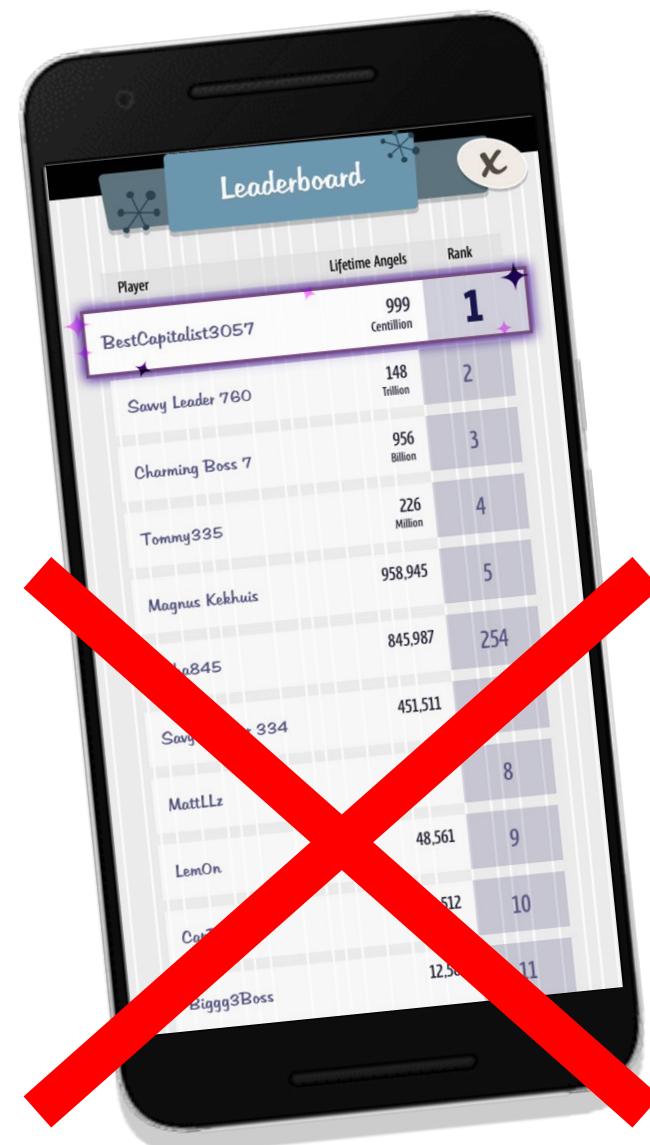


Designing a Solution: The Goals

PREVENT COASTING



**PREVENT UN-COMPETITIVE
LEADERBOARDS**



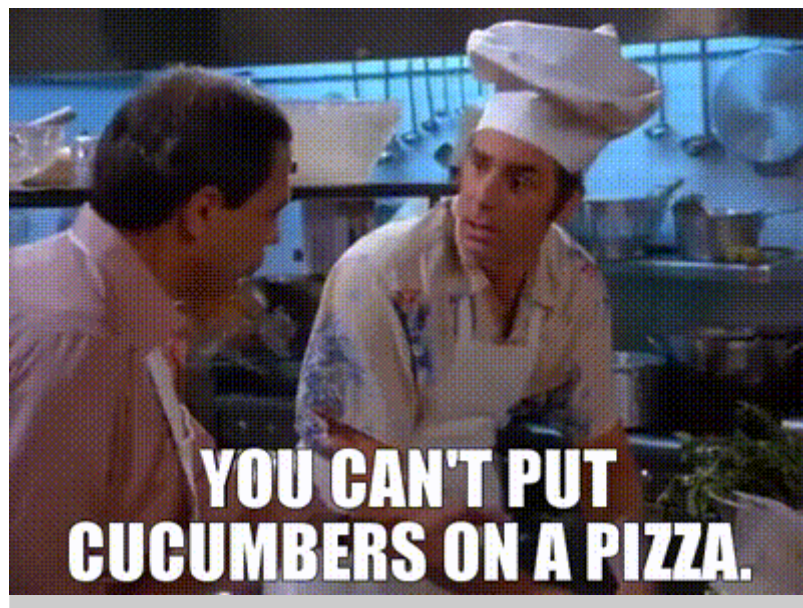
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Designing a Solution: The Risks

**MESSING UP THE
TRIED & TRUE RECIPE**



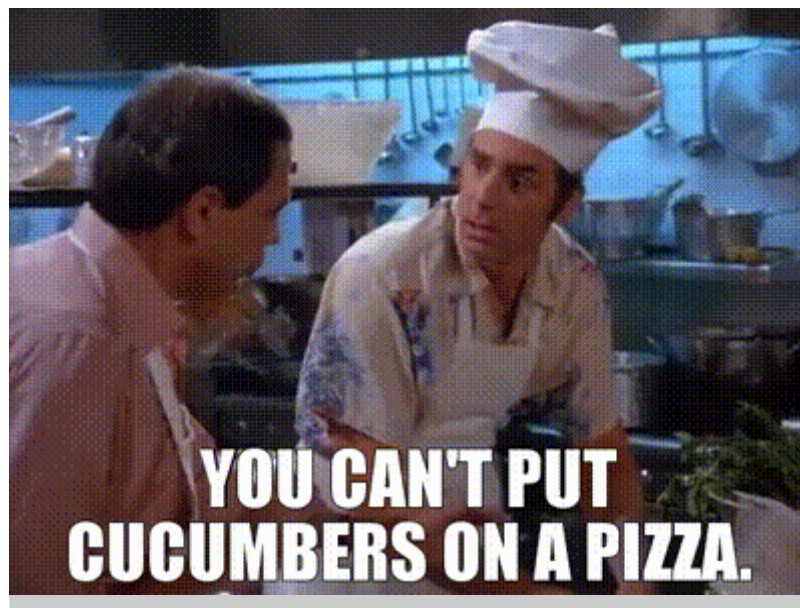
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Designing a Solution: The Risks

**MESSING UP THE
TRIED & TRUE RECIPE**



20 DIFFERENT THEMES



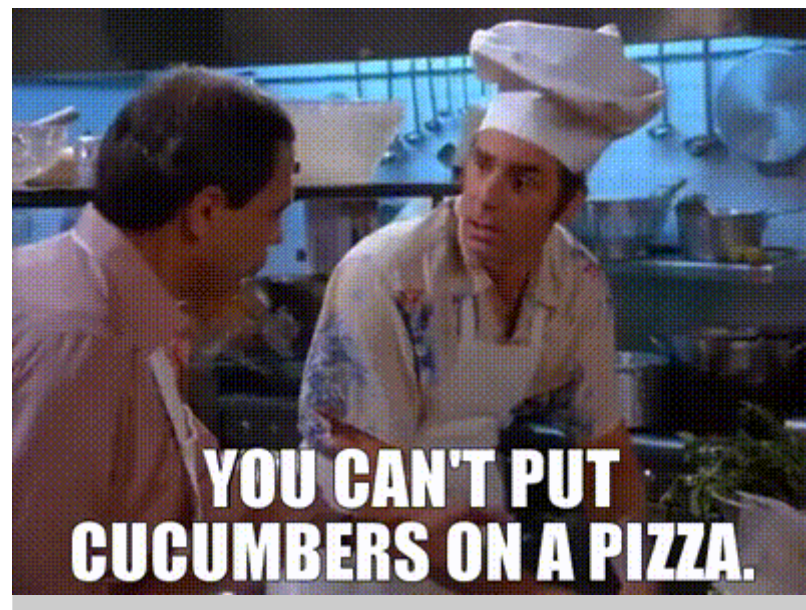
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Designing a Solution: The Risks

MESSING UP THE
TRIED & TRUE RECIPE



20 DIFFERENT THEMES



15 DIFFERENT BALANCES

id	name	unlockType	permanent	amount	order	rewardType	affectedValue	bonus
1	Red Suit Cops	SingleItemUnlock	FALSE	50	1	UnlockRewardVentureProfit	10000000000	3
2	Shattered Tomes	SingleItemUnlock	FALSE	100	2	UnlockRewardVentureProfit	10000000000	11
3	Counting Time, Cret	SingleItemUnlock	FALSE	125	3	UnlockRewardVentureProfit	10000000000	5
4	Just a Minute, Mad!	SingleItemUnlock	FALSE	777	4	UnlockRewardVentureProfit	10000000000	2
5	Lady in the Sky with Lemons	SingleItemUnlock	FALSE	825	5	UnlockRewardVentureProfit	10000000000	3
6	Cartoon Circus	SingleItemUnlock	FALSE	1160	6	UnlockRewardVentureProfit	10000000000	3
7	Lemons are Forever	SingleItemUnlock	FALSE	1212	7	UnlockRewardVentureProfit	10000000000	12
8	Citrus Funds	SingleItemUnlock	FALSE	1525	8	UnlockRewardVentureProfit	10000000000	1.5
9	Bees Money	SingleItemUnlock	FALSE	1530	9	UnlockRewardVentureProfit	10000000000	2.5
10	Bliss! We're Having!	SingleItemUnlock	FALSE	1530	10	UnlockRewardVentureProfit	10000000000	2
11	A La Mode	SingleItemUnlock	FALSE	25	11	UnlockRewardVentureProfit	10000000000	2.5
12	All Corner Pieces	SingleItemUnlock	FALSE	75	12	UnlockRewardVentureProfit	10000000000	5
13	90% Long	SingleItemUnlock	FALSE	400	13	UnlockRewardVentureProfit	10000000000	6666
14	Ready, set, go!	SingleItemUnlock	FALSE	800	14	UnlockRewardVentureProfit	10000000000	7777
15	Deep and Delicious	SingleItemUnlock	FALSE	800	15	UnlockRewardVentureProfit	10000000000	8888
16	Angel Investor Food Cake	SingleItemUnlock	FALSE	700	16	UnlockRewardVentureProfit	10000000000	9999
17	Let Them Eat Omelette	SingleItemUnlock	FALSE	777	17	UnlockRewardVentureProfit	10000000000	12
18	Flour Hour	SingleItemUnlock	FALSE	1075	18	UnlockRewardVentureProfit	10000000000	4444
19	Trade and Butter Economy	SingleItemUnlock	FALSE	1300	19	UnlockRewardVentureProfit	10000000000	1.5
20	Top Tier	SingleItemUnlock	FALSE	1220	20	UnlockRewardVentureProfit	10000000000	2.5
21	Biodegradable	SingleItemUnlock	FALSE	75	21	UnlockRewardVentureProfit	10000000000	11
22	Patrol	SingleItemUnlock	FALSE	100	22	UnlockRewardVentureProfit	10000000000	4444
23	This is Safe, Right?	SingleItemUnlock	FALSE	156	23	UnlockRewardVentureProfit	10000000000	7
24	Hellum for Bakers	SingleItemUnlock	FALSE	368	24	UnlockRewardVentureProfit	10000000000	5555
25	As a matter of fact	SingleItemUnlock	FALSE	512	25	UnlockRewardVentureProfit	10000000000	6666



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Designing a Solution: The Concept

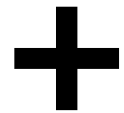


Designing a Solution: The Concept

QUEST SYSTEM



Goals are always relevant
to current progression



EXISTING EVENTS



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Designing a Solution: The Concept

QUEST SYSTEM



Goals are always relevant
to current progression

+

=

EXISTING EVENTS



GET POINTS



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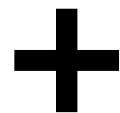
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Designing a Solution: The Concept

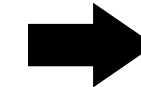
QUEST SYSTEM



Goals are always relevant
to current progression



GET POINTS



LEADERBOARDS



EXISTING EVENTS



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Designing a Solution: Reaching Goals



Goals

+



**Spend
helps to
complete them**



YOUR TOTAL POINTS:
2500

Get points

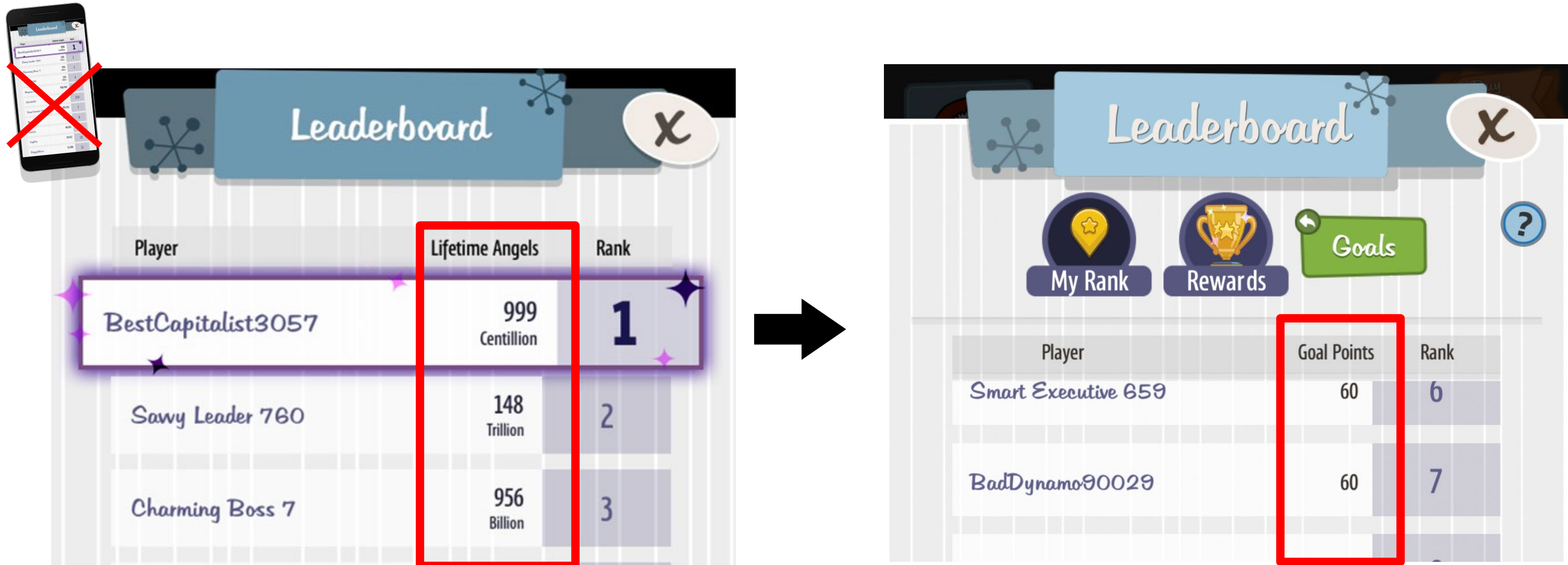


**New goals are not
helped by previous
spend**





Designing a Solution: Reaching Goals



KEEP LEADERBOARDS COMPETITIVE



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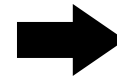
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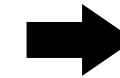
Building a Solution: Procedural Balance



CASH EARNED SO FAR



**TIME TO
COMPLETION**



GENERATE A GOAL



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Building a Solution: v1

Goal

Provide procedural objectives
to encourage continuous
engagement



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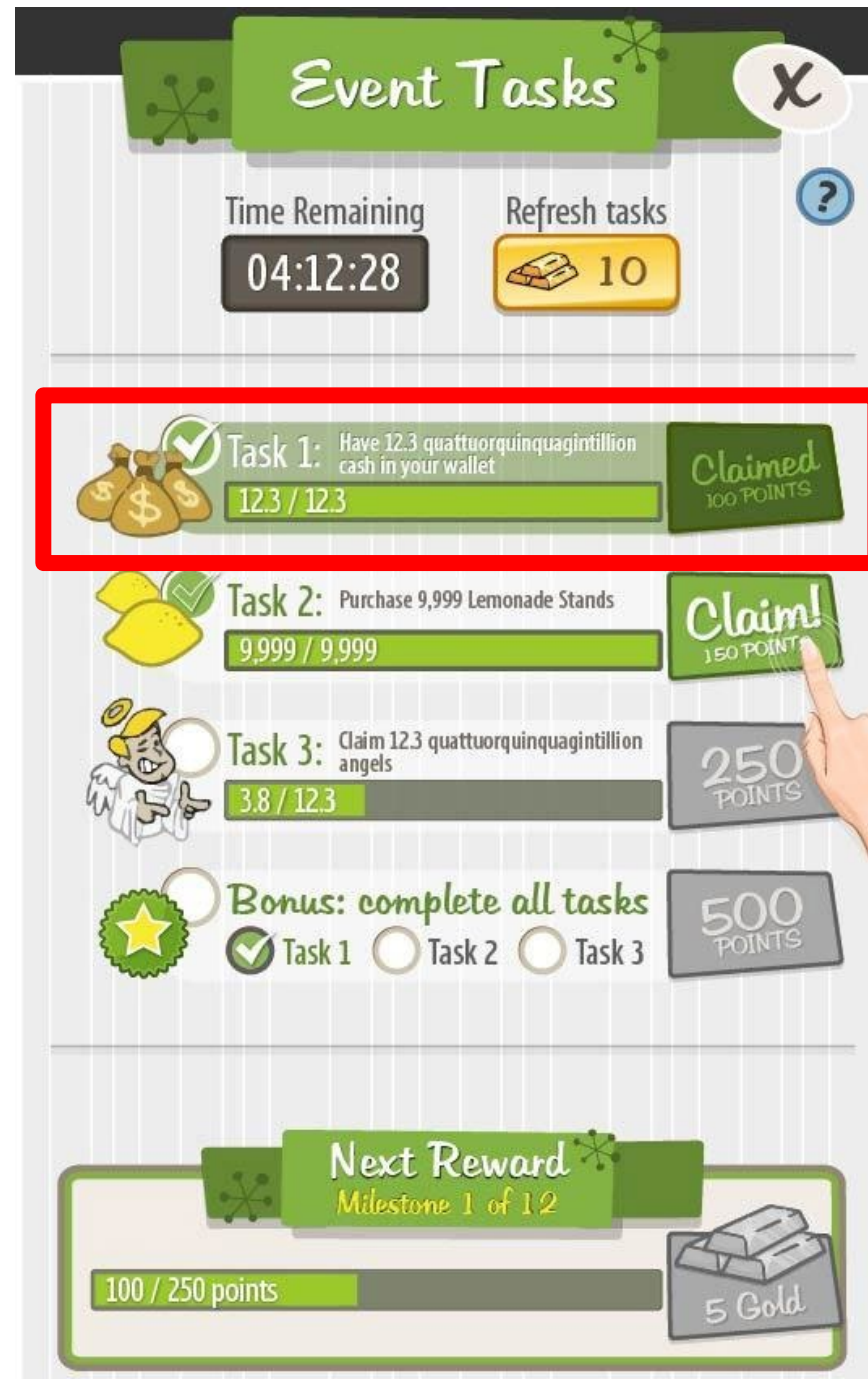
Building a Solution: v1

Goal

Provide procedural objectives to encourage continuous engagement

Features

- Tasks of various difficulty/points





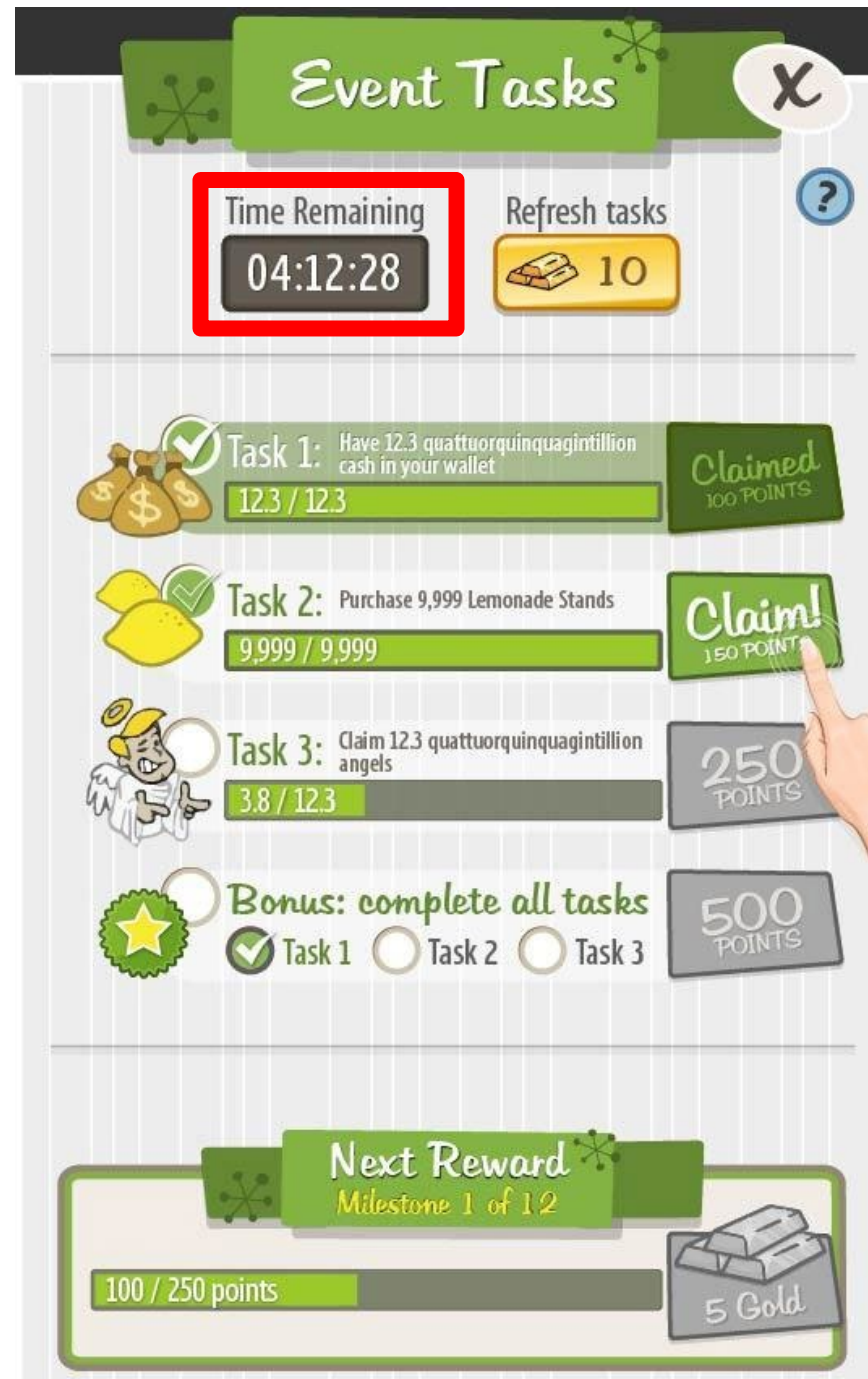
Building a Solution: v1

Goal

Provide procedural objectives to encourage continuous engagement

Features

- Tasks of various difficulty/points
- Time limit





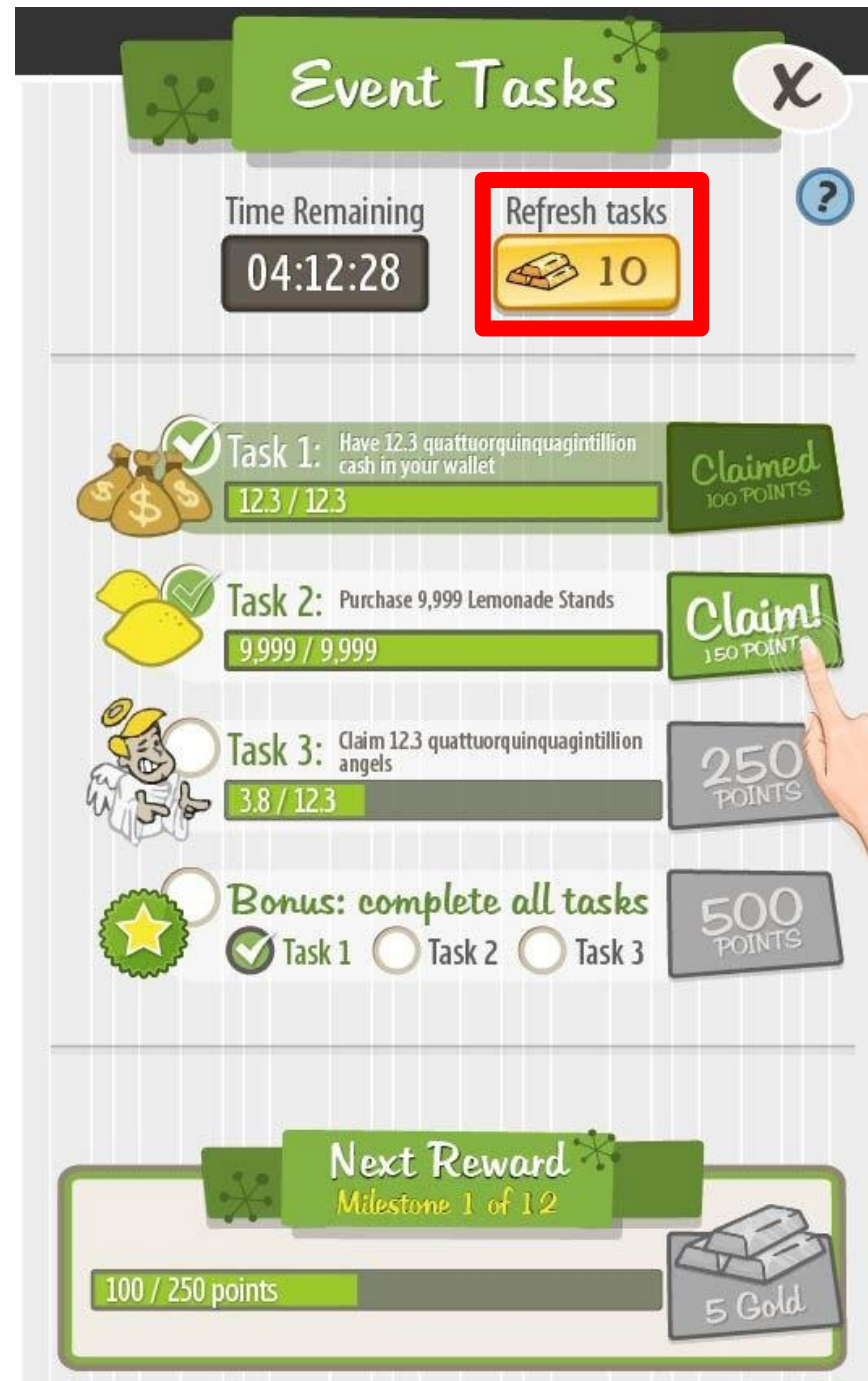
Building a Solution: v1

Goal

Provide procedural objectives to encourage continuous engagement

Features

- Tasks of various difficulty/points
- Time limit
- Refresh





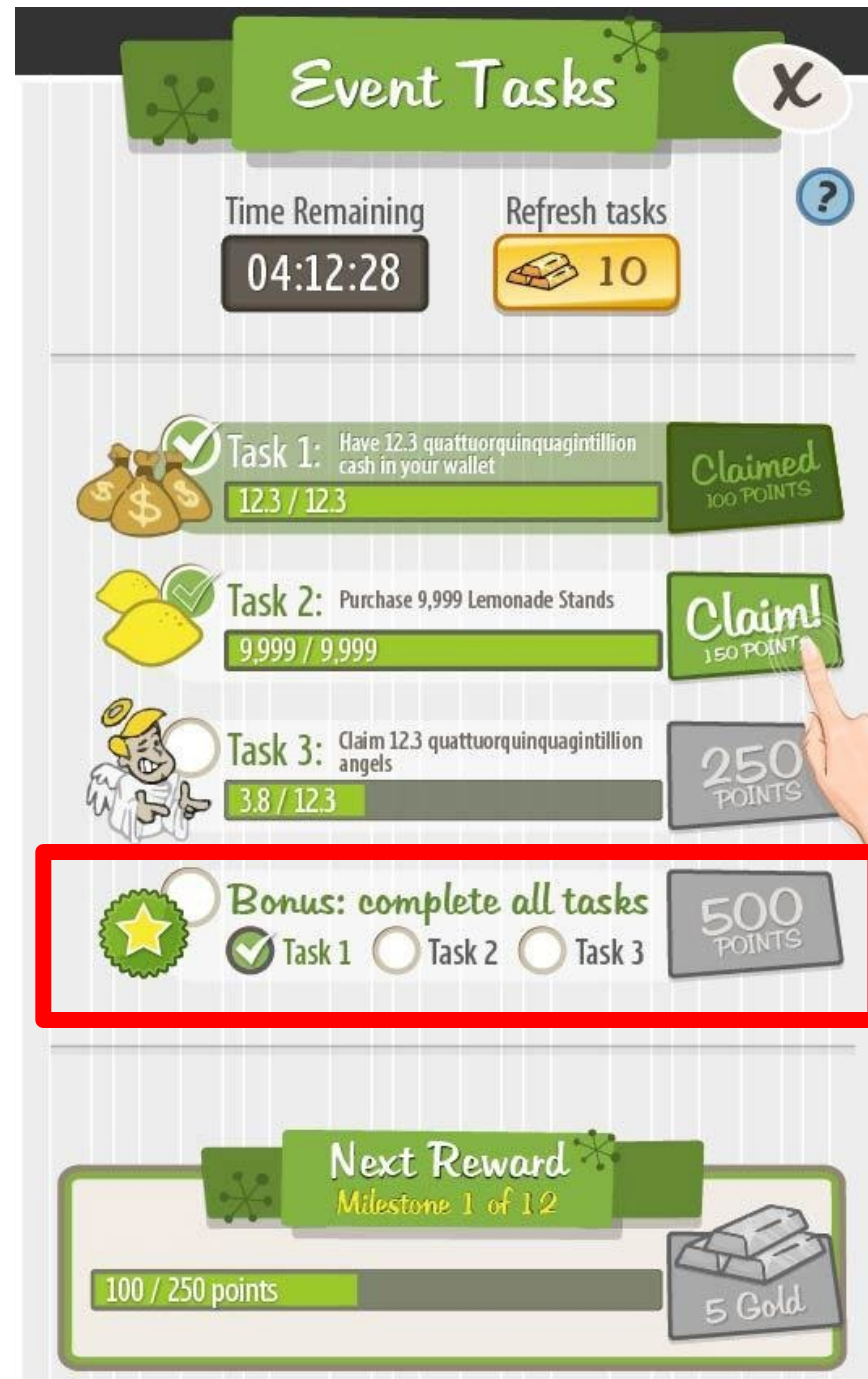
Building a Solution: v1

Goal

Provide procedural objectives to encourage continuous engagement

Features

- Tasks of various difficulty/points
- Time limit
- Refresh
- Completion bonus



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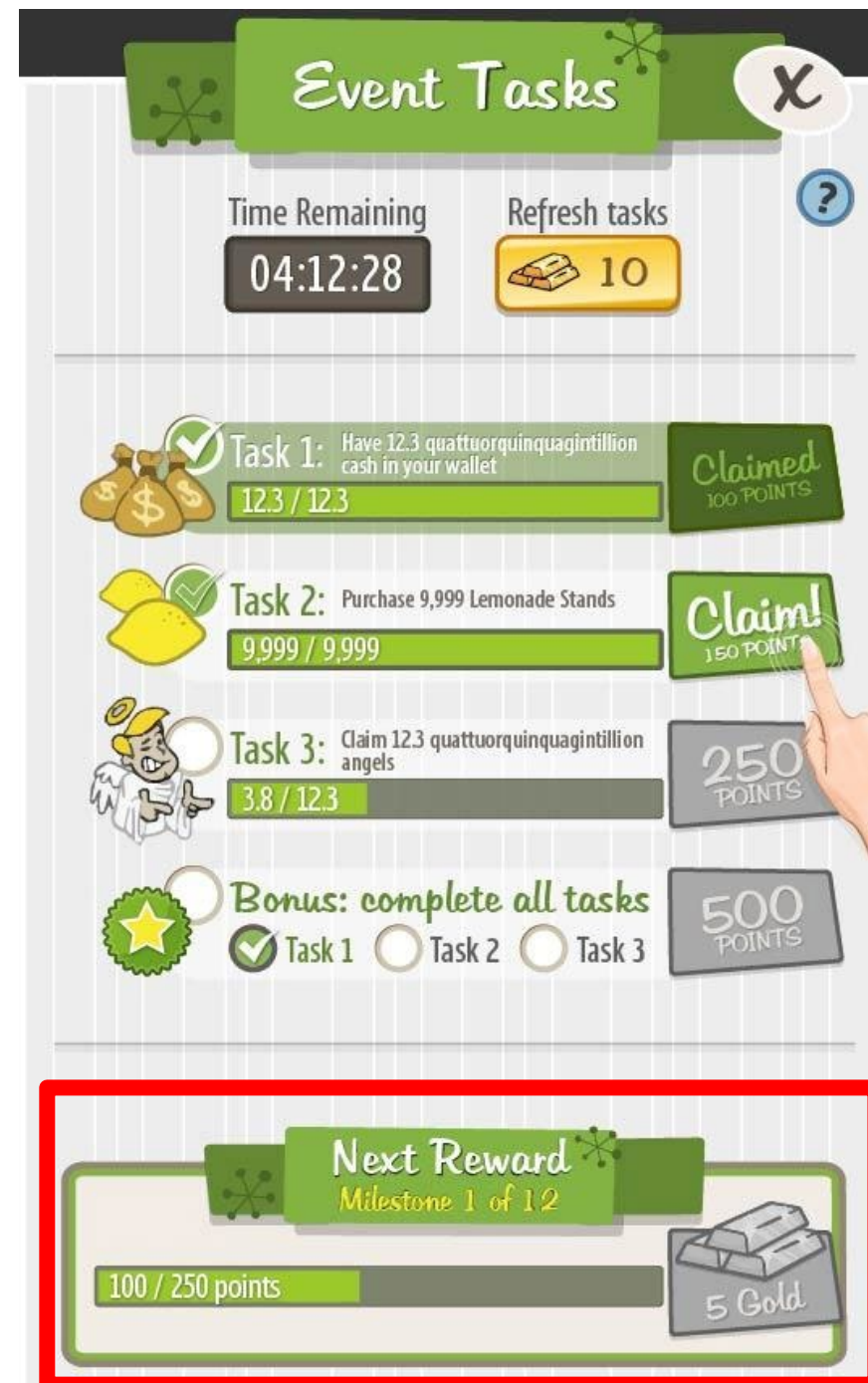
Building a Solution: v1

Goal

Provide procedural objectives to encourage continuous engagement

Features

- Tasks of various difficulty/points
- Time limit
- Refresh
- Completion bonus
- Milestone rewards



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Building a Solution: v1

Goal

Provide procedural objectives to encourage continuous engagement

Features

- Tasks of various difficulty/points
- Time limit
- Refresh
- Completion bonus
- Milestone rewards



Playtest Results

What works

- The objective targets are appropriate to the player progression
- The milestone tracks motivates completion for non competitors



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Building a Solution: v1

Goal

Provide procedural objectives to encourage continuous engagement

Features

- Tasks of various difficulty/points
- Time limit
- Refresh
- Completion bonus
- Milestone rewards



Playtest Results

What works

- The objective targets are appropriate to the player progression
- The milestone tracks motivates completion for non competitors

What doesn't

- UI needs a pass
- Completing all objectives left with nothing to do, disengaging players

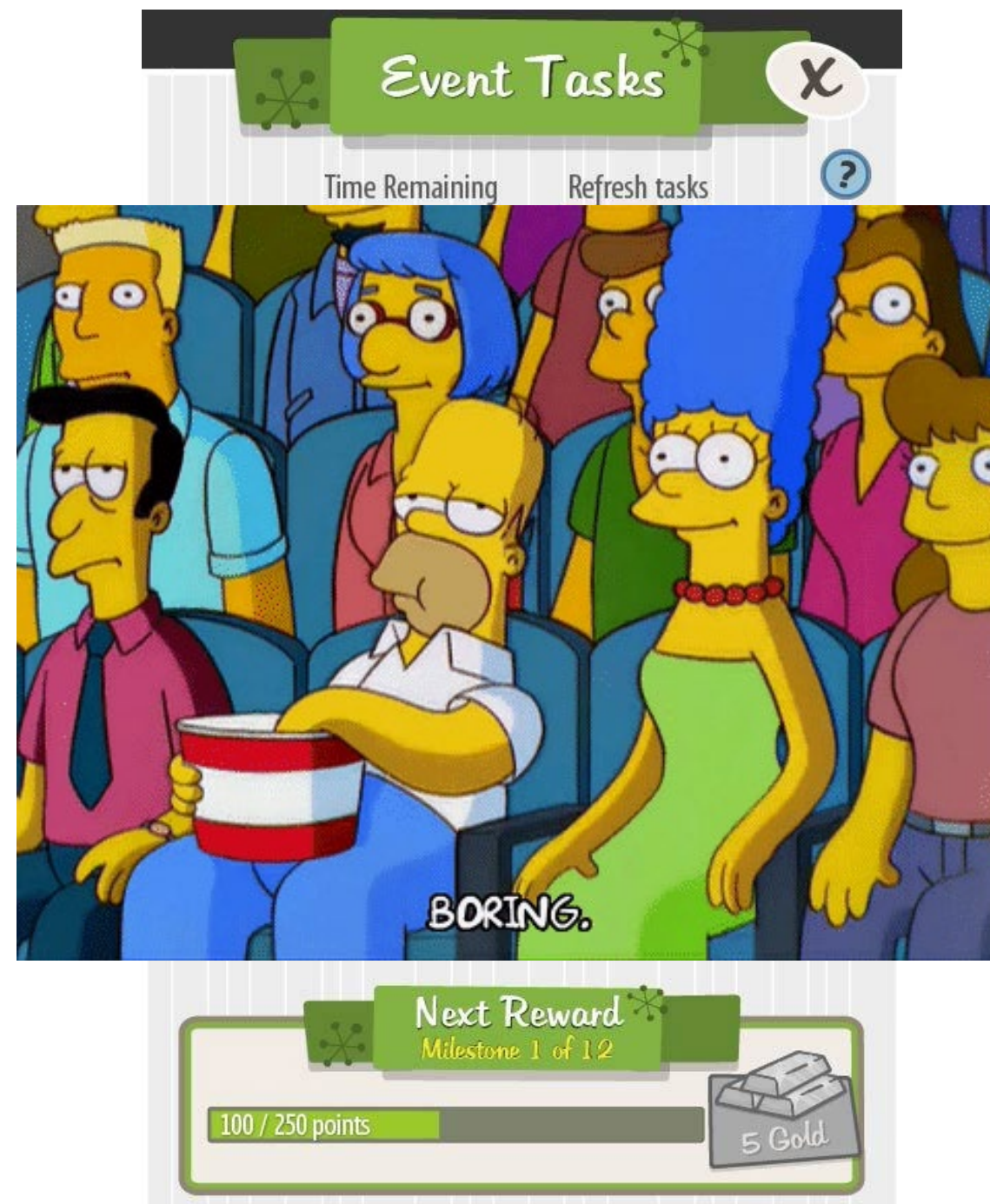


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Building a Solution: v1





Building a Solution: v2

Goal

Solve the NO GOAL problem.



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Building a Solution: v2

Goal

Solve the NO GOAL problem

Features

- When all goals are completed, you get a new set of goals
- No UI or visual changes



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Building a Solution: v2

Goal

Solve the NO GOAL problem

Features

- When all goals are completed, you get a new set of goals
- No UI or visual changes



Playtest Results

What works

- Engagement was improved thanks to goals always available



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Building a Solution: v2

Goal

Solve the NO GOAL problem

Features

- When all goals are completed, you get a new set of goals
- No UI or visual changes



Playtest Results

What works

- Engagement was improved thanks to goals always available

What doesn't

- Reveals a pre-existing issue: time limit leads to missing goals.
- Appointment mechanics with penalties for missing it = disappointment



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Building a Solution: v2





Building a Solution: v3

Goal

Reduce frustration from time limit



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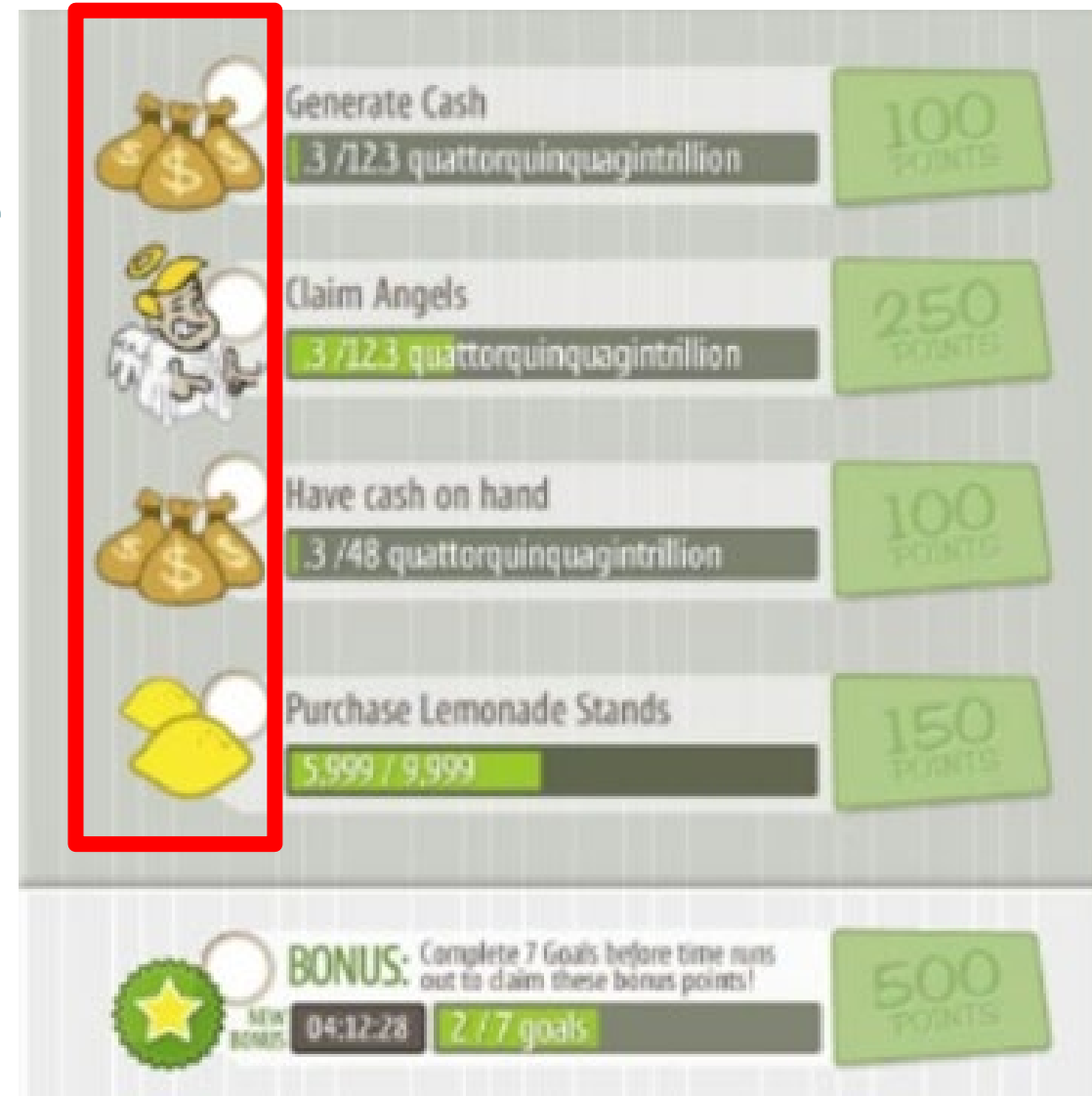
Building a Solution: v3

Goal

Reduce frustration from time limit

Features

- Now 4 tasks at once



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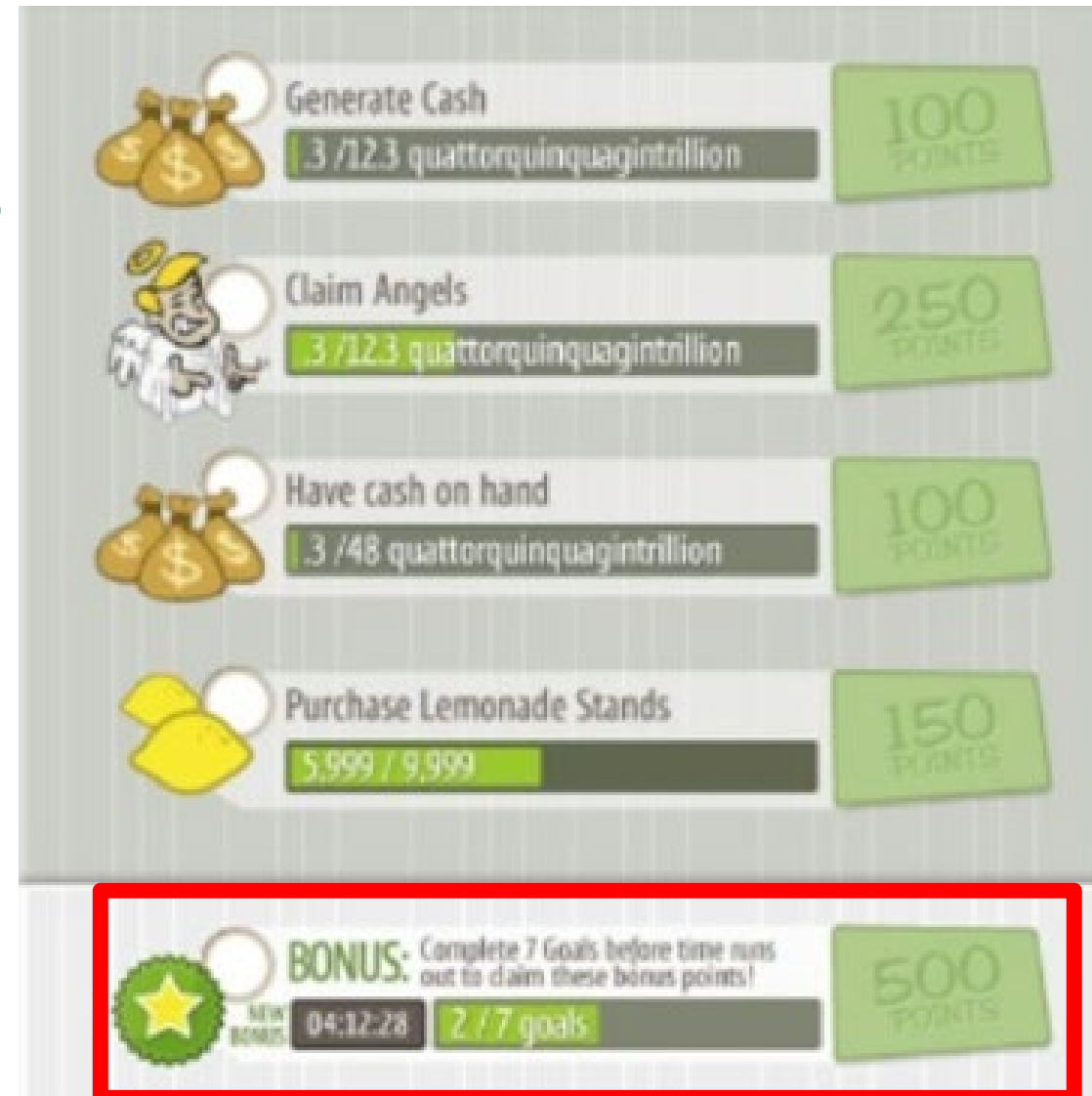
Building a Solution: v3

Goal

Reduce frustration from time limit

Features

- Now 4 tasks at once
- Time limit to get bonus points based on timer



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Building a Solution: v3

Goal

Reduce frustration from time limit

Features

- Now 4 tasks at once
- Time limit to get bonus points based on timer



Playtest Results

What works

- 4 tasks as once give the player more options



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Building a Solution: v3

Goal

Reduce frustration from time limit

Features

- Now 4 tasks at once
- Time limit to get bonus points based on timer



Playtest Results

What works

- 4 tasks at once give the player more options

What doesn't

- The timed bonus is a complex mechanics (2 combined factors) that is not intuitive enough, especially given the game target audience.



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Building a Solution: v3





Building a Solution: v4

Goal
Simplify



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Building a Solution: v4

Goal

Simplify

Features

- New UI
- No time limit



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Building a Solution: v4

Goal

Simplify

Features

- New UI
- No time limit



Playtest Results

What works

- Players love the new UI
- The absence of time limit removed the frustration



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Building a Solution: v4

Goal

Simplify

Features

- New UI
- No time limit



Playtest Results

What works

- Players love the new UI
- The absence of time limit removed the frustration

What doesn't

- The built-in appointment mechanic is lost
- The simplicity leads to players feeling it's missing something



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Building a Solution: v4





Building a Solution: v5

Goal

Add some delight



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Building a Solution: v5

Goal

Add some delight

Features

- Random bonus tasks: more difficult, more points
- Bonus tasks have a time limit

The screenshot displays a list of four tasks, each with a progress bar and a 'Claim!' button. The tasks are:

- Make more Cash**: Progress bar shows 34.58/34.58 billion. Claim button is active (green) and shows 55 pts.
- Buy More Gold Leaf Cakes**: Progress bar shows 48/103. Claim button is inactive (grey) and shows 55 pts.
- Own Antimatter Balloons**: Progress bar shows 87/87. Claim button is active (green) and shows 55 pts.
- Buy More Platinum Pinatas**: Progress bar shows 0/6. Claim button is inactive (grey) and shows 2,300 pts. This task is highlighted with a yellow border and includes an 'EXPIRES IN 2h 59m' timer.



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Building a Solution: v5

Goal

Add some delight

Features

- Random bonus tasks: more difficult, more points
- Bonus tasks have a time limit



Playtest Results

What works

- The delight caused by the surprise goal

What doesn't

- Nothing major

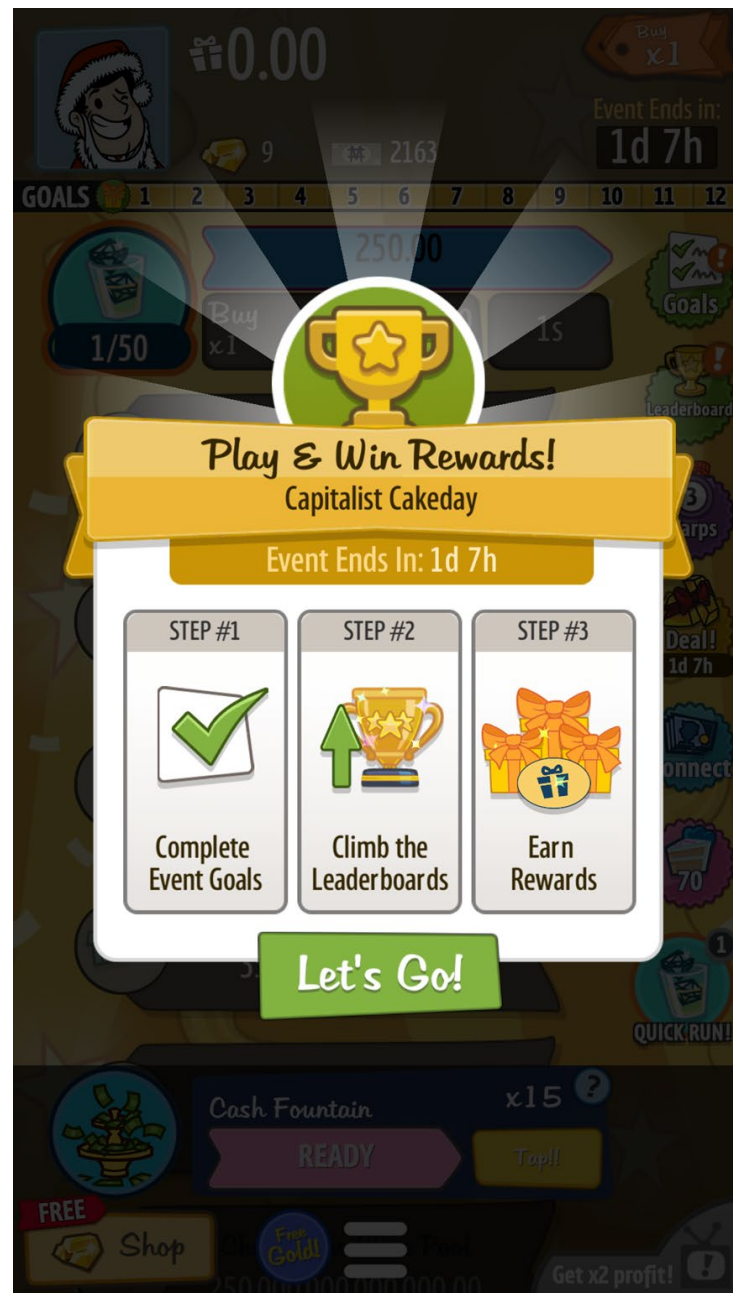


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Building a Solution: v5



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Building a Solution: Summary

v1



Goals every 4 hours

If you add objectives, when there aren't any, players tend to disengage

v2



Max 4 hours to complete goals

Appointment mechanics should rely on missed opportunities, not threat of failure

v3



Goals with a timed bonus task

Intuitiveness of features is a requirement with a casual audience

v4



No bonus, no timer

Simplifying too much can lead to lackluster features

v5



Goals paired with timed bonus tasks

WINNER!
WINNER!



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1. DATA



2. HYPOTHESIS



3. SOLUTION

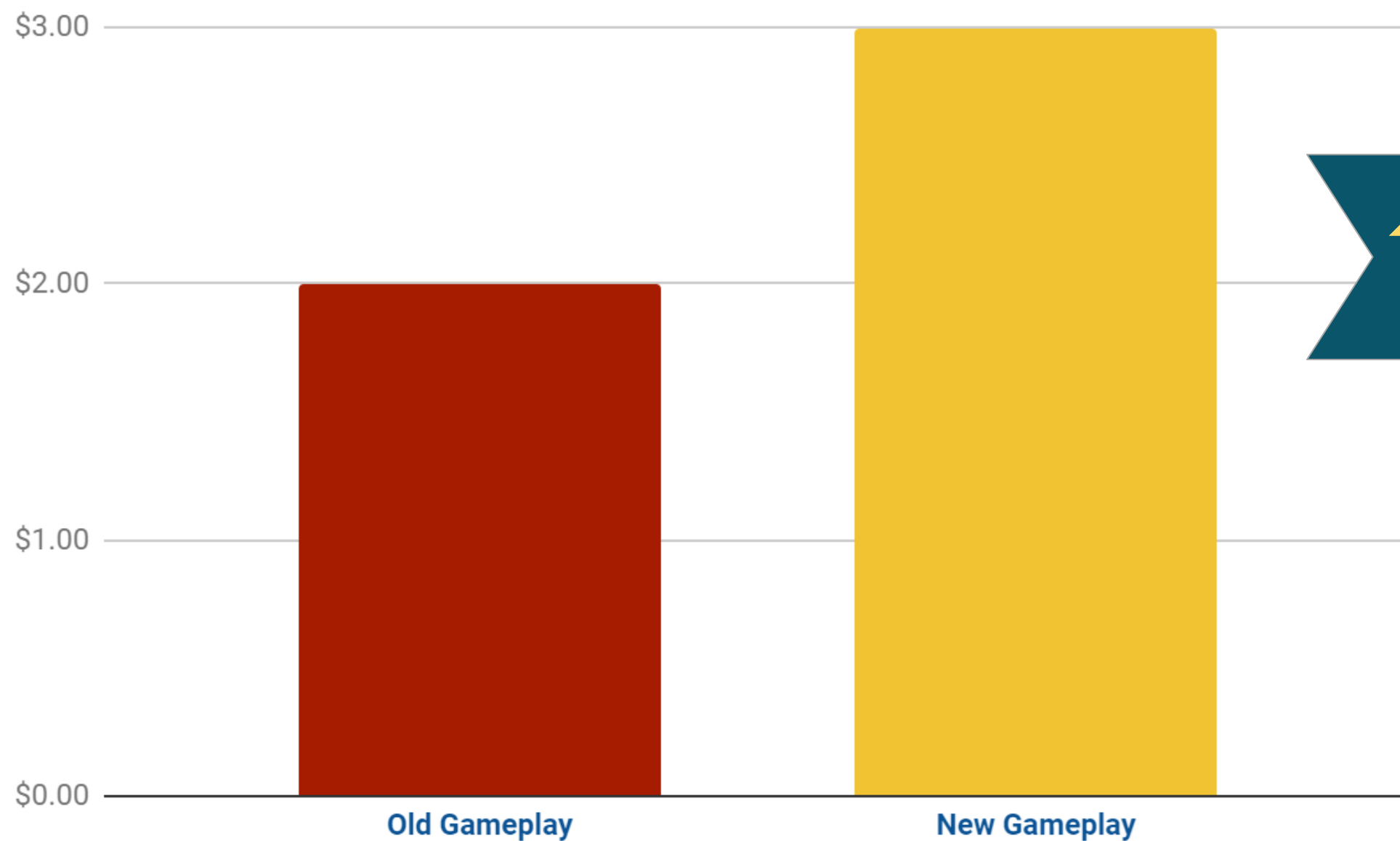


4. TEST





A/B Testing the Solution



ARPDAU during the event

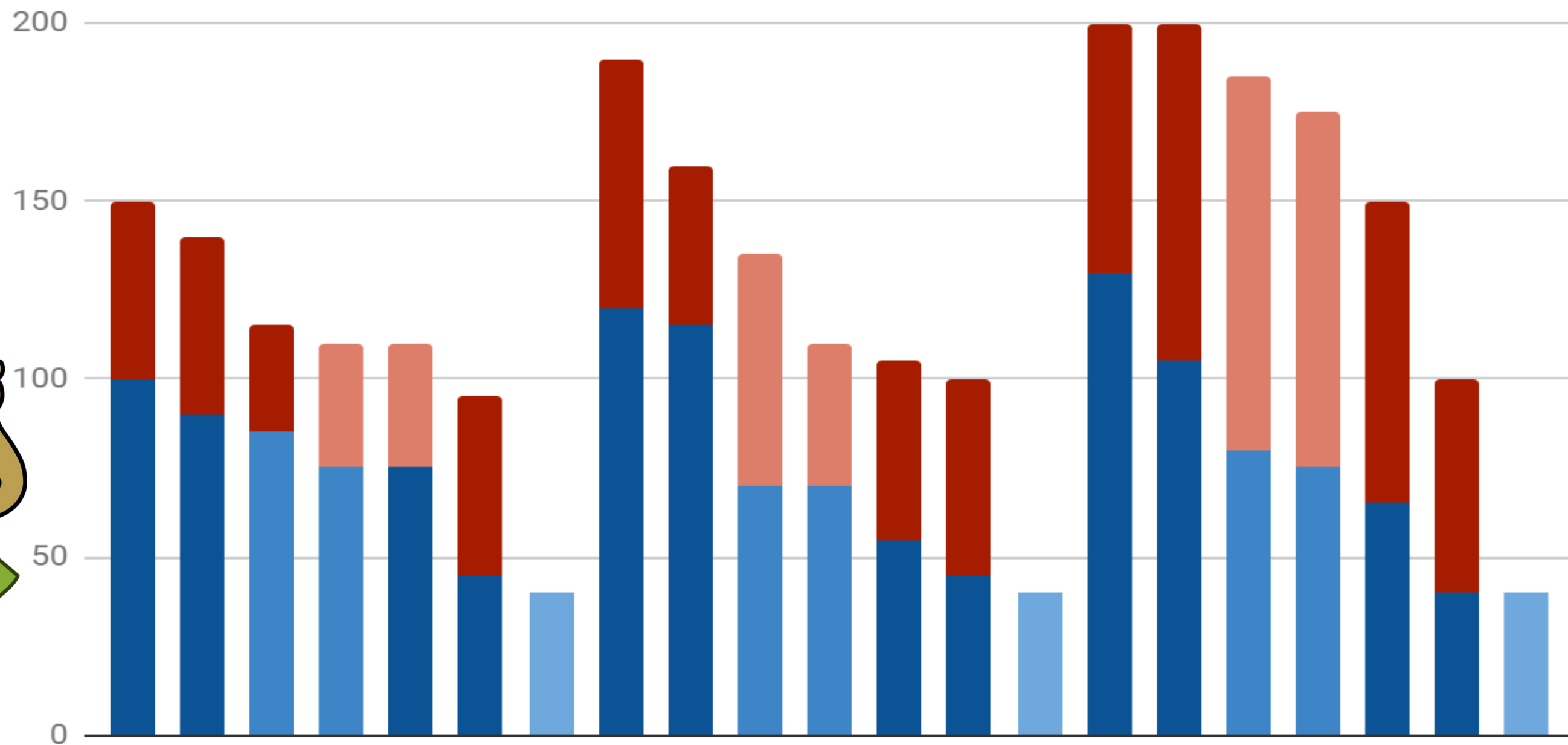


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A/B Testing the Solution



Revenues by day of the week



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Takeaways

PROCESS



- Time-box your prototyping
- Focus your team on the feature



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Takeaways

PROCESS



- Time-box your prototyping
- Focus your team on the feature

PROCEDURAL



- Create a numerical key predictive of progress
- Make sure spending doesn't skew your predictions



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Takeaways

PROCESS



- Time-box your prototyping
- Focus your team on the feature

PROCEDURAL



- Create a numerical key predictive of progress
- Make sure spending doesn't skew your predictions

DESIGN LESSONS



- Avoid objective deserts
- Appointment missed should not lead to failure
- Balance simplicity and delight



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Thank you!



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