GDC

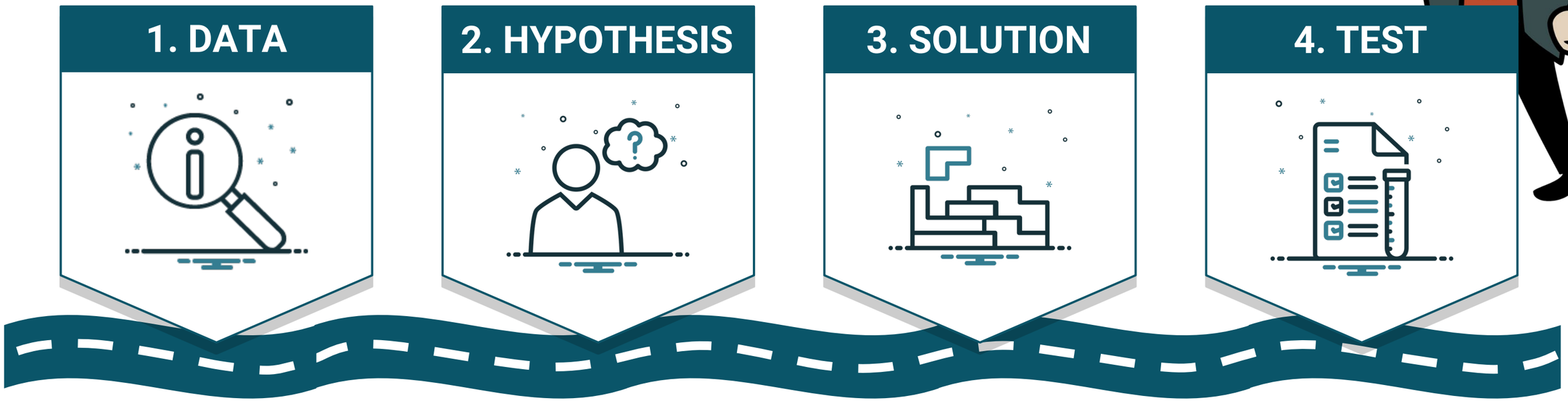
# Beating the Content Treadmill:
## Using Procedural Design in AdVenture Capitalist

**GABRIEL LEFEBVRE**

*Game Design Manager – Hyper Hippo Games*

# The Live-Ops Journey

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



# What is Adventure Capitalist?

**GAMEPLAY:**

Progress Bars

**MAIN PLATFORMS:**

iOS, Android

**GENRE:**

Incremental Idle Clicker

# AdCap Limited Time Events

**LIMITED TIME EVENTS**

**EARN CASH**

**LEADERBOARDS**

1. DATA

2. HYPOTHESIS

3. SOLUTION

4. TEST

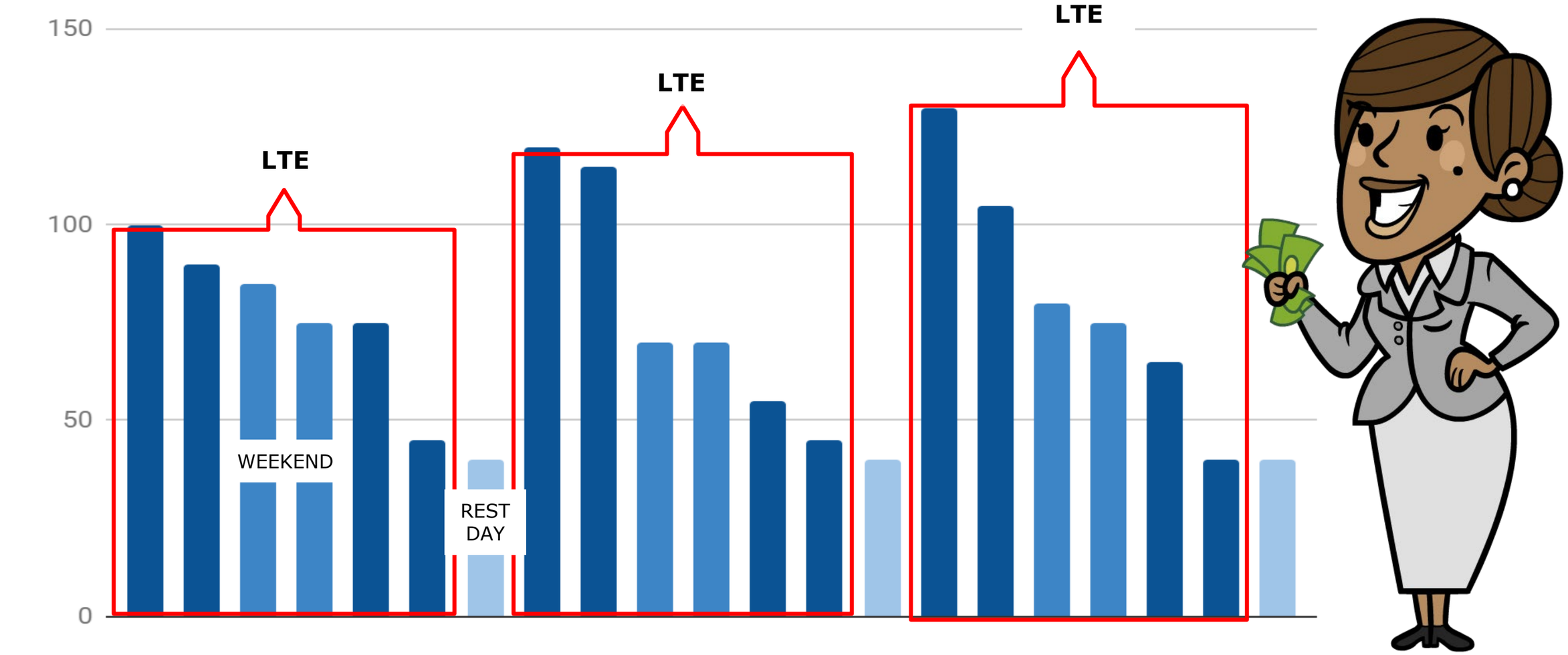
## 1. DATA

## 2. HYPOTHESIS

## 3. SOLUTION

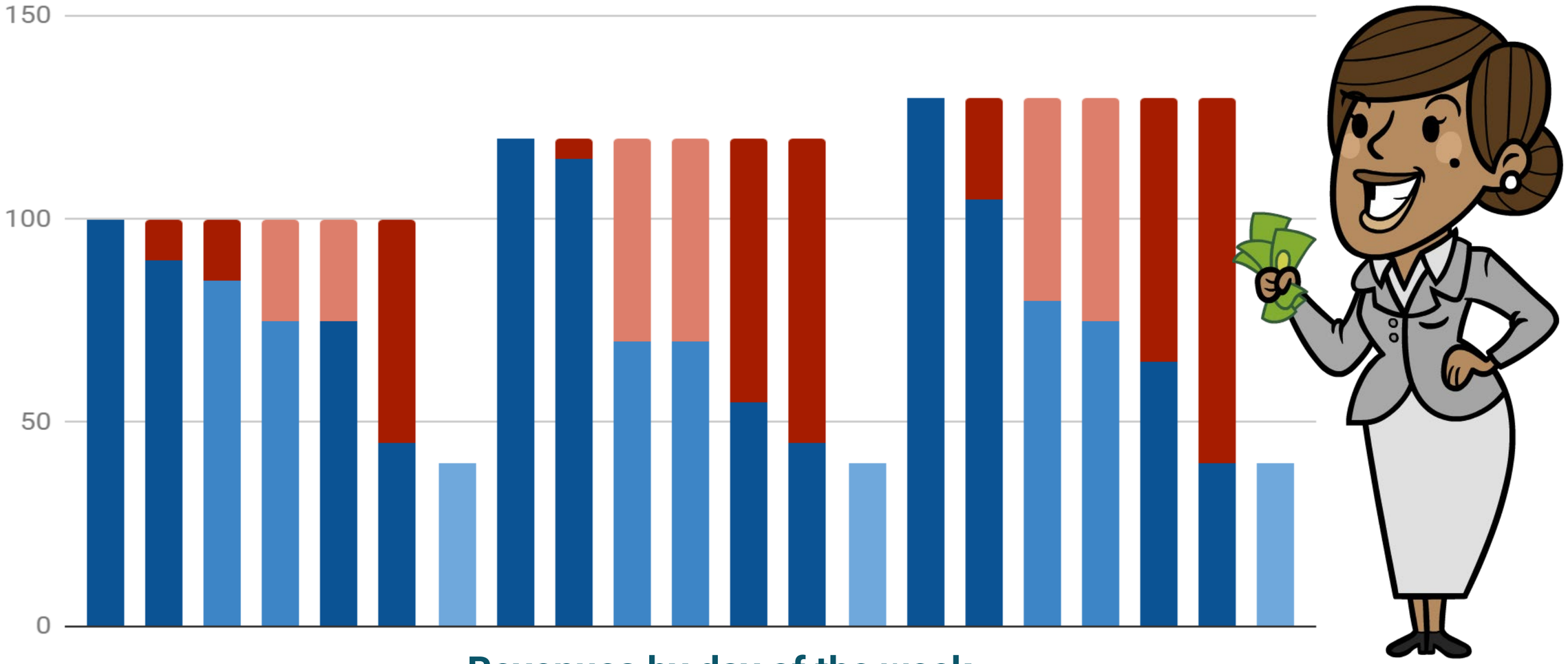
## 4. TEST

# Identifying Low Performance Indicators




**Revenues by day of the week**

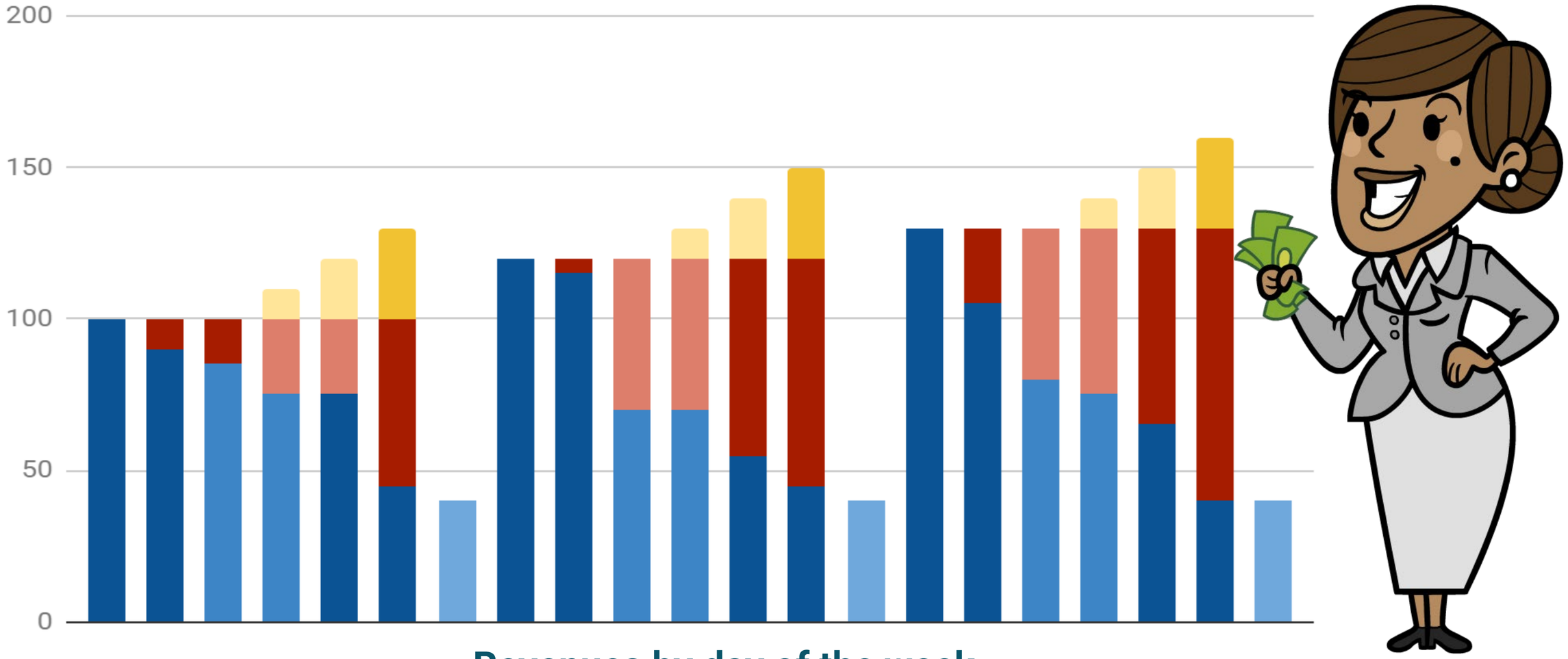
# Identifying Low Performance Indicators






**Revenues by day of the week**

# Identifying Low Performance Indicators




**Revenues by day of the week**

## 1. DATA

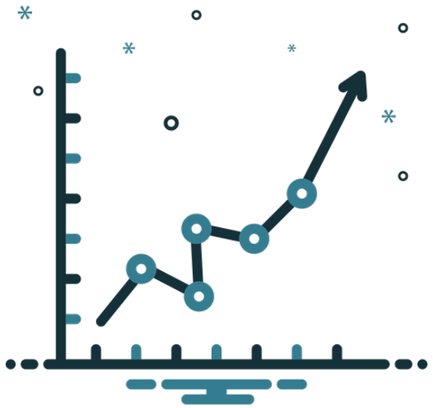
## 2. HYPOTHESIS

## 3. SOLUTION

## 4. TEST

# Setting an Hypothesis

**INCREMENTAL NATURE**



+

**PERMANENT MULTIPLIERS**

+

**PROGRESSION BASED LEADERBOARD**

=

**SPEND AND COAST**

## 1. DATA

## 2. HYPOTHESIS

## 3. SOLUTION

## 4. TEST

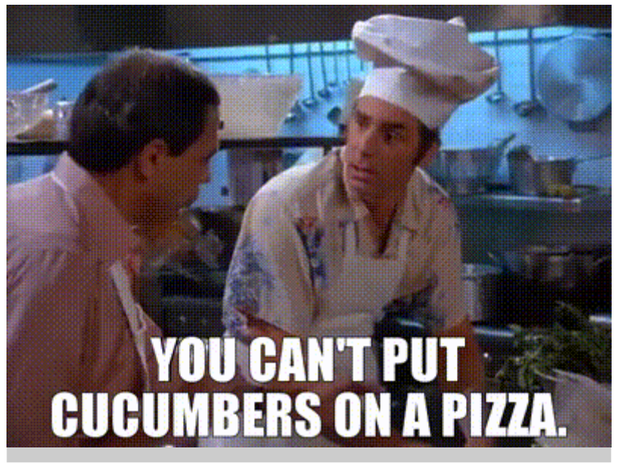
# Designing a Solution: The Goals

## PREVENT COASTING

## PREVENT UN-COMPETITIVE LEADERBOARDS

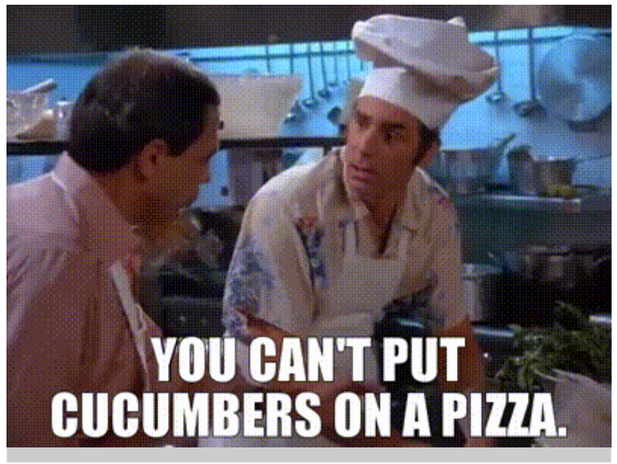
# Designing a Solution: The Risks

**MESSING UP THE TRIED & TRUE RECIPE**



# Designing a Solution: The Risks

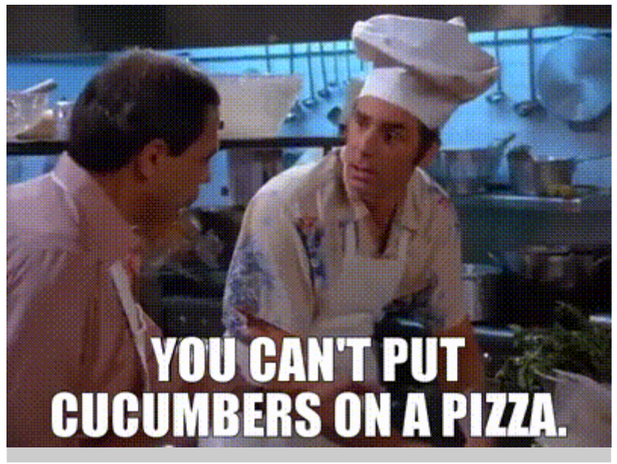
## MESSING UP THE TRIED & TRUE RECIPE




## 20 DIFFERENT THEMES

# Designing a Solution: The Risks

## MESSING UP THE TRIED & TRUE RECIPE




## 20 DIFFERENT THEMES

## 15 DIFFERENT BALANCES

# Designing a Solution: The Concept

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**QUEST SYSTEM**

Goals are always relevant to current progression

+

**EXISTING EVENTS**

# Designing a Solution: The Concept

**QUEST SYSTEM**

Goals are always relevant to current progression

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**EXISTING EVENTS**

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**GET POINTS**

# Designing a Solution: The Concept

**QUEST SYSTEM**

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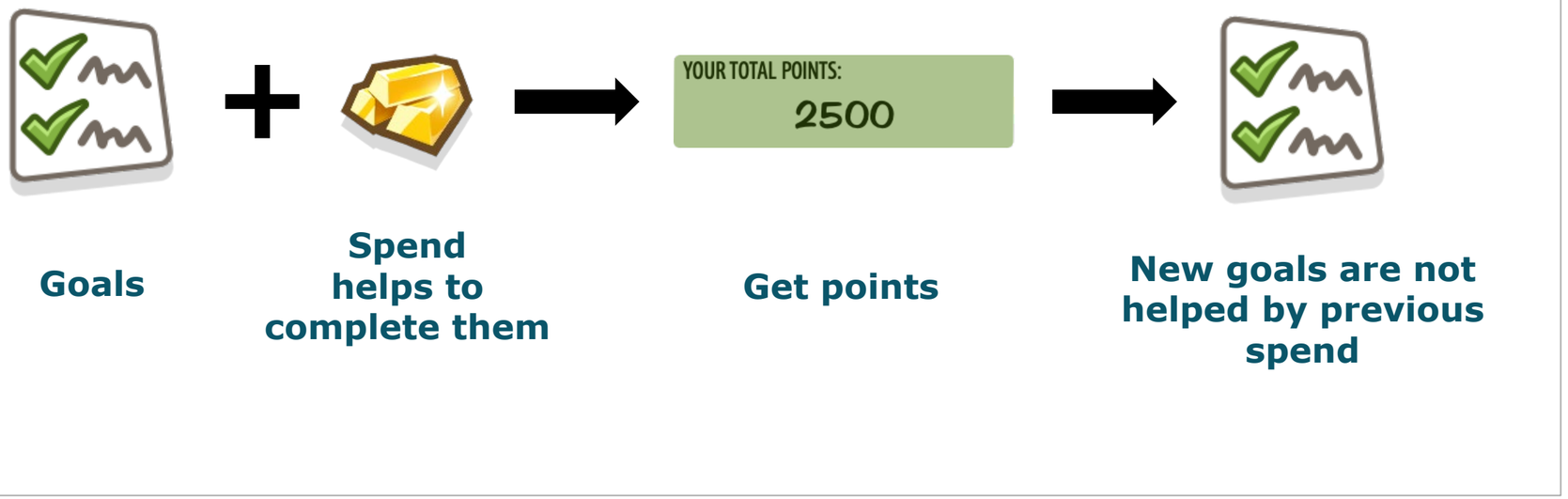
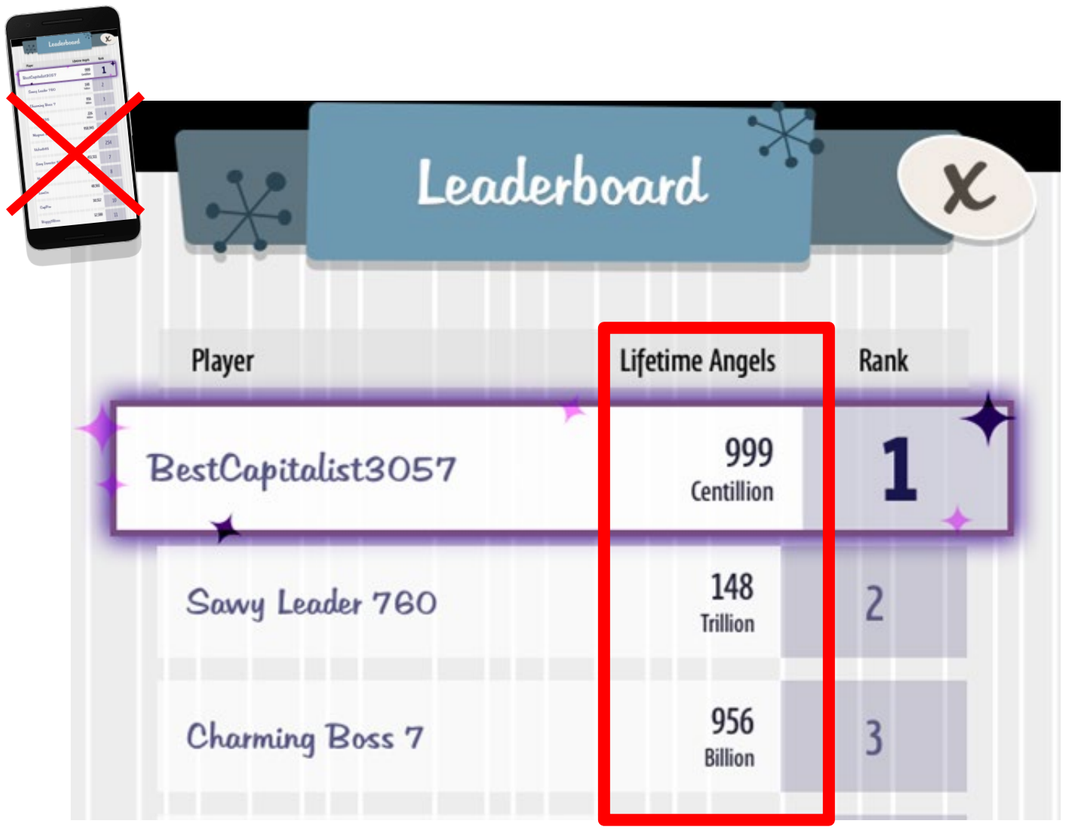
**GET POINTS**

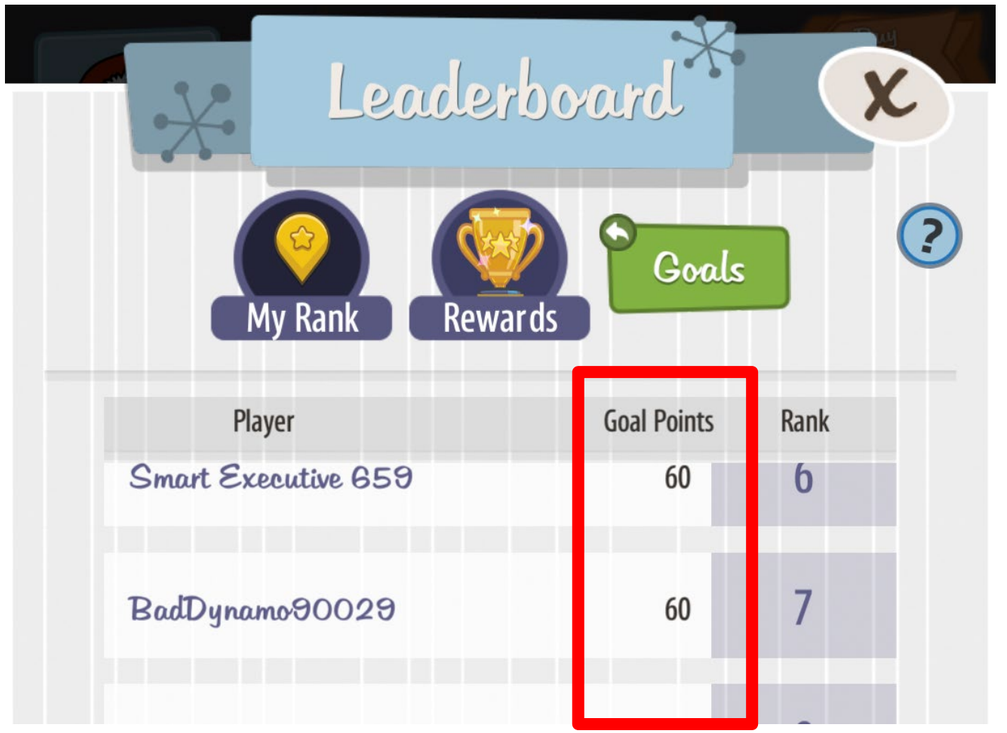
**LEADERBOARDS**

# Designing a Solution: Reaching Goals



# Designing a Solution: Reaching Goals




**KEEP LEADERBOARDS COMPETITIVE**

# Building a Solution: Procedural Balance

**CASH EARNED SO FAR**

**TIME TO COMPLETION**

**GENERATE A GOAL**

# Building a Solution: v1

**Goal**

Provide procedural objectives to encourage continuous engagement

# Building a Solution: v1

## Goal

Provide procedural objectives to encourage continuous engagement

## Features

- Tasks of various difficulty/points

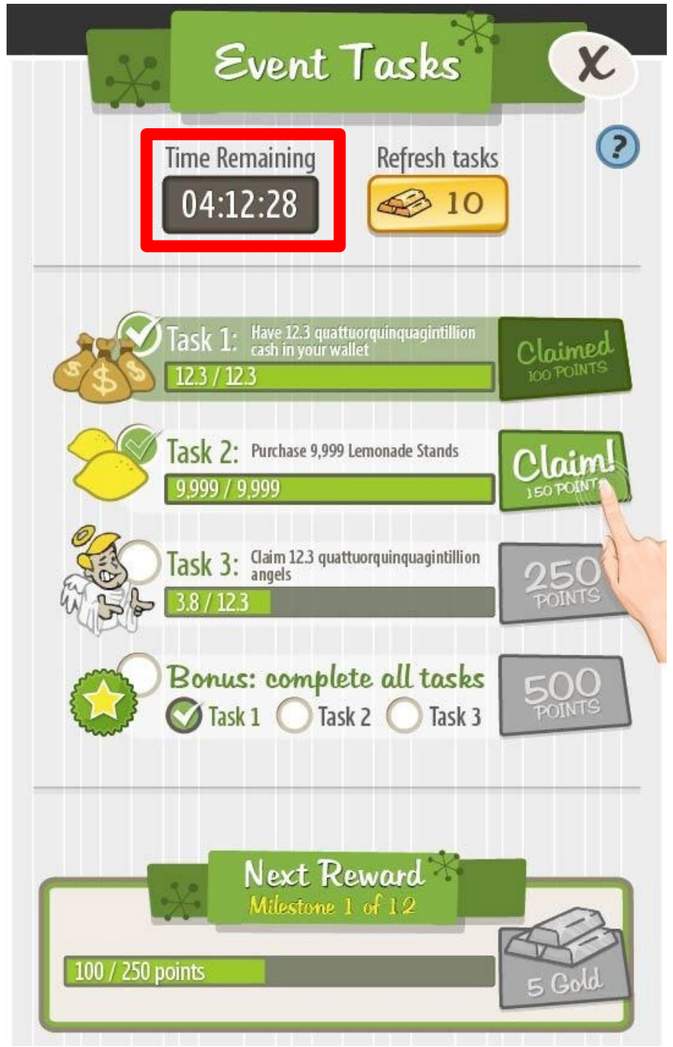
# Building a Solution: v1

## Goal

Provide procedural objectives to encourage continuous engagement

## Features

- Tasks of various difficulty/points
- Time limit



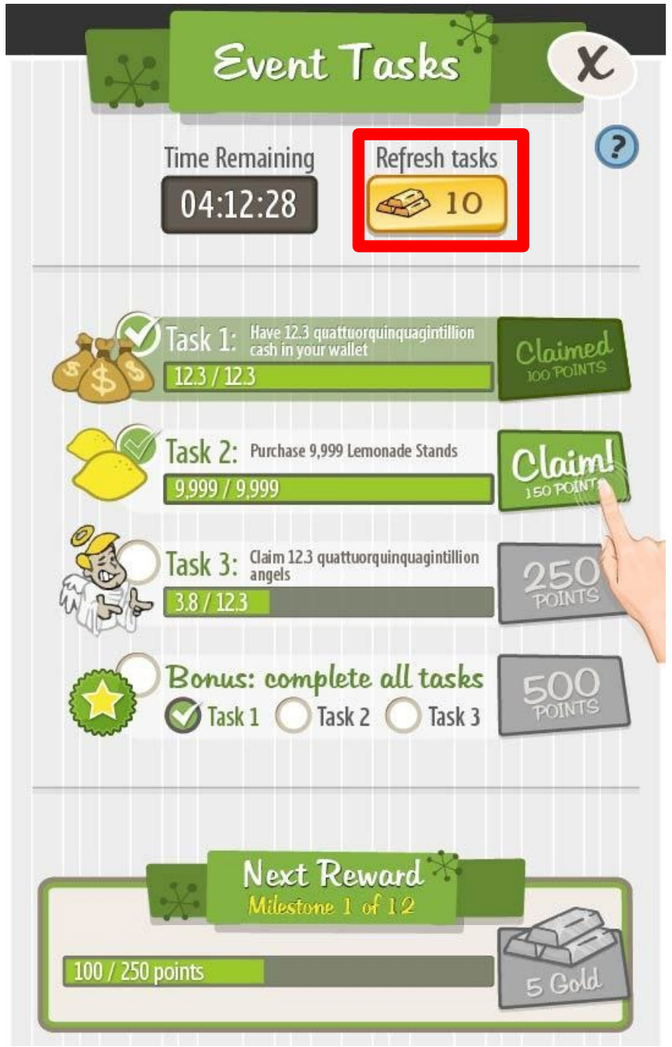
# Building a Solution: v1

## Goal

Provide procedural objectives to encourage continuous engagement

## Features

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



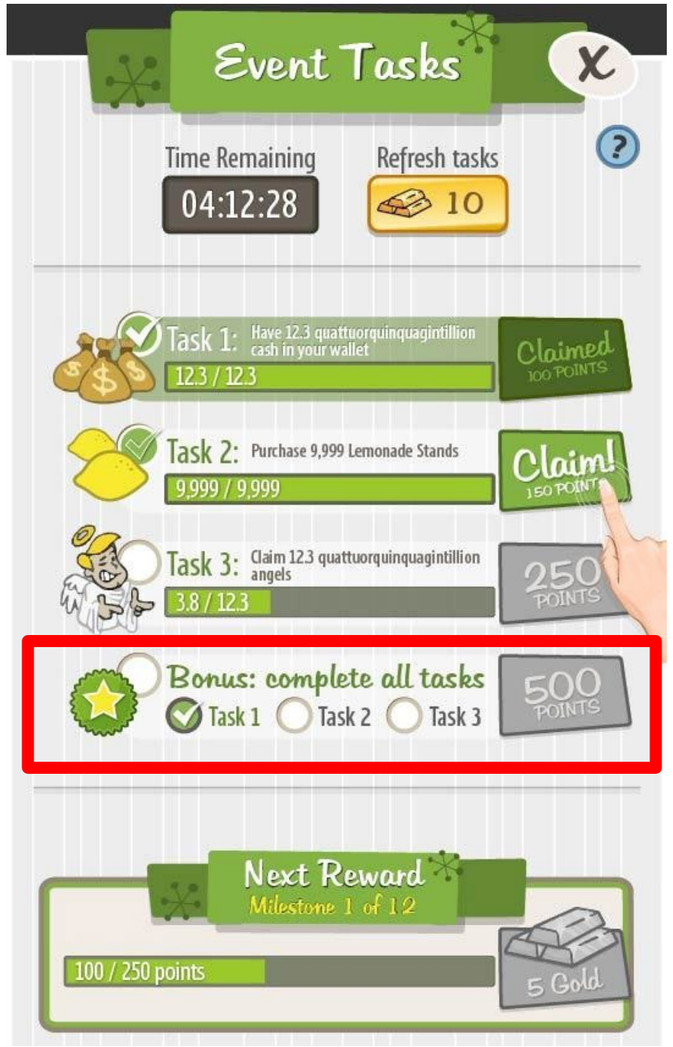
# Building a Solution: v1

## Goal

Provide procedural objectives to encourage continuous engagement

## Features

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



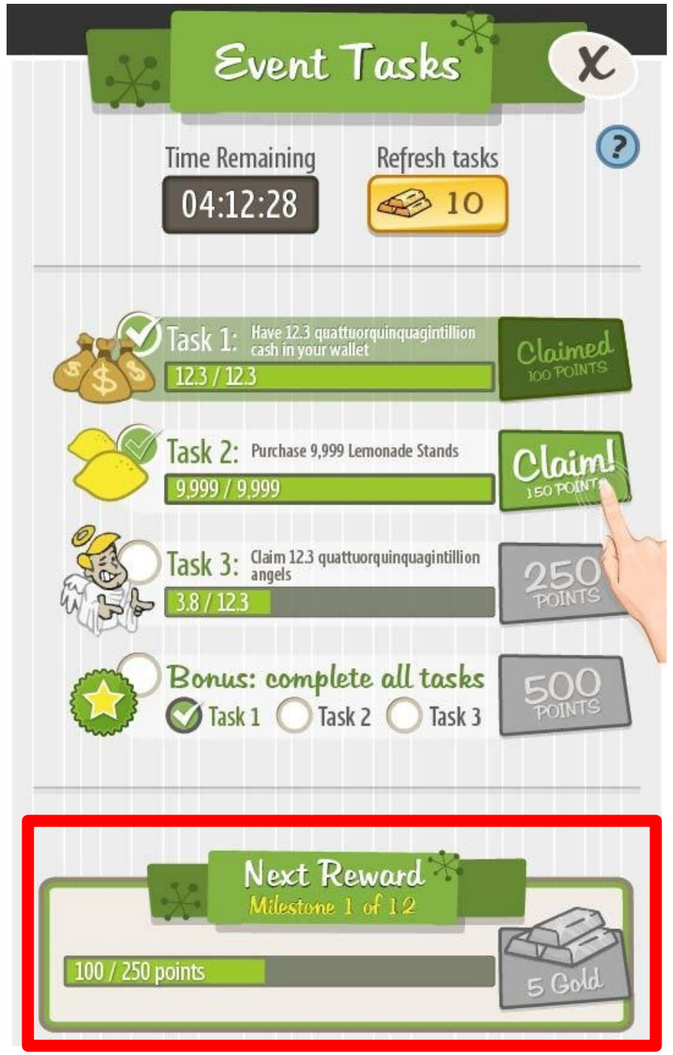
# Building a Solution: v1

## Goal

Provide procedural objectives to encourage continuous engagement

## Features

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



# 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

# 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

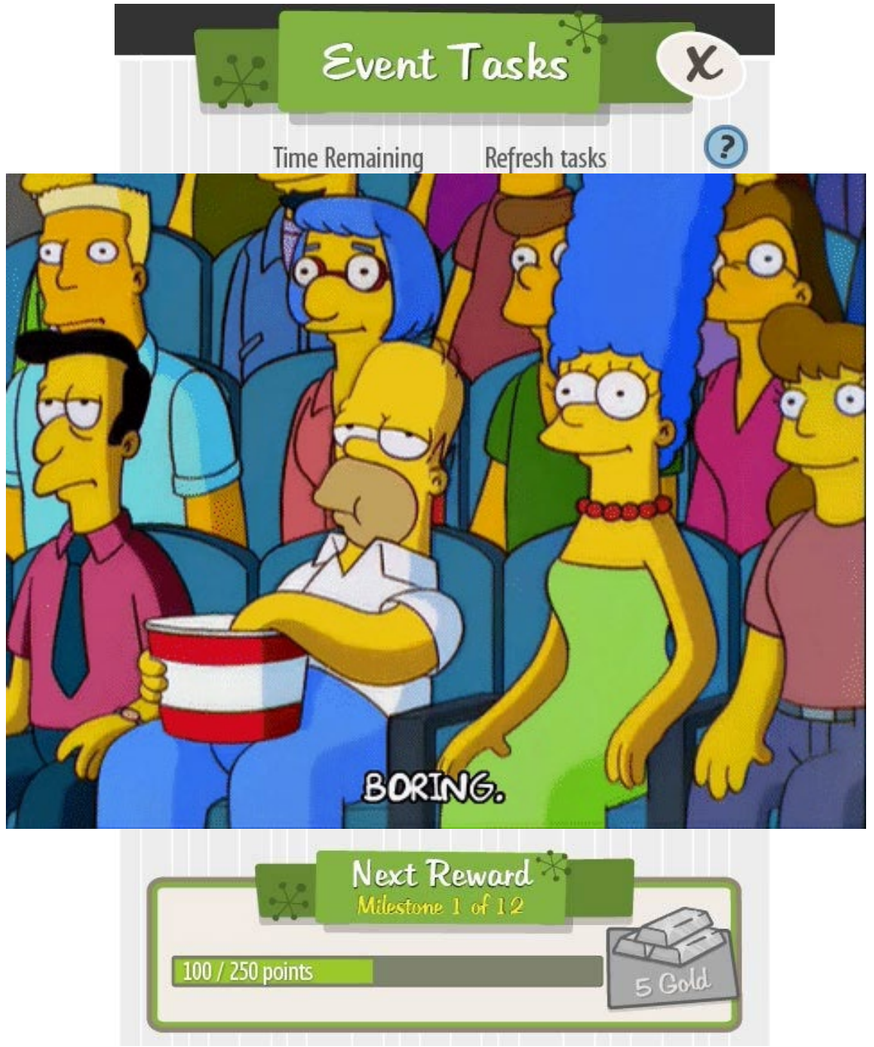
### What works

- 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

# Building a Solution: v1



# Building a Solution: v2

**Goal**

Solve the NO GOAL problem.

# 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

# 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

# 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

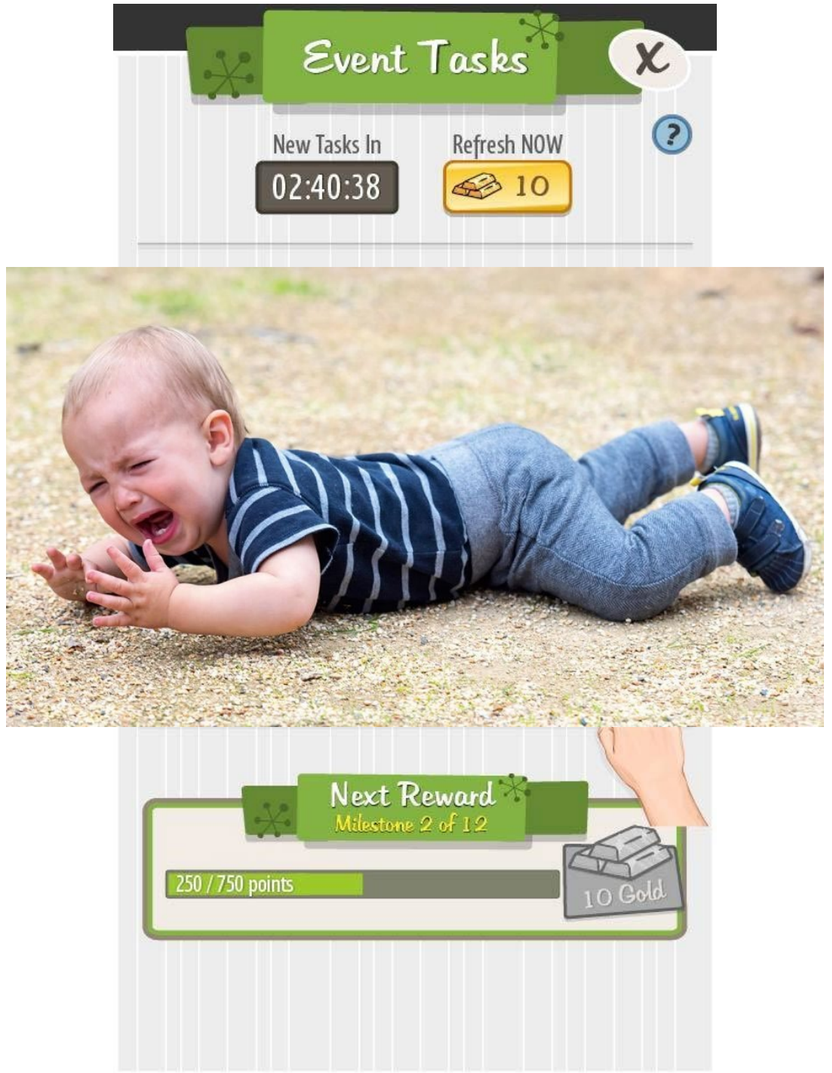
### What works

- 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

# Building a Solution: v2



# Building a Solution: v3

**Goal**

Reduce frustration from time limit

# Building a Solution: v3

## Goal

Reduce frustration from time limit

## Features

- Now 4 tasks at once

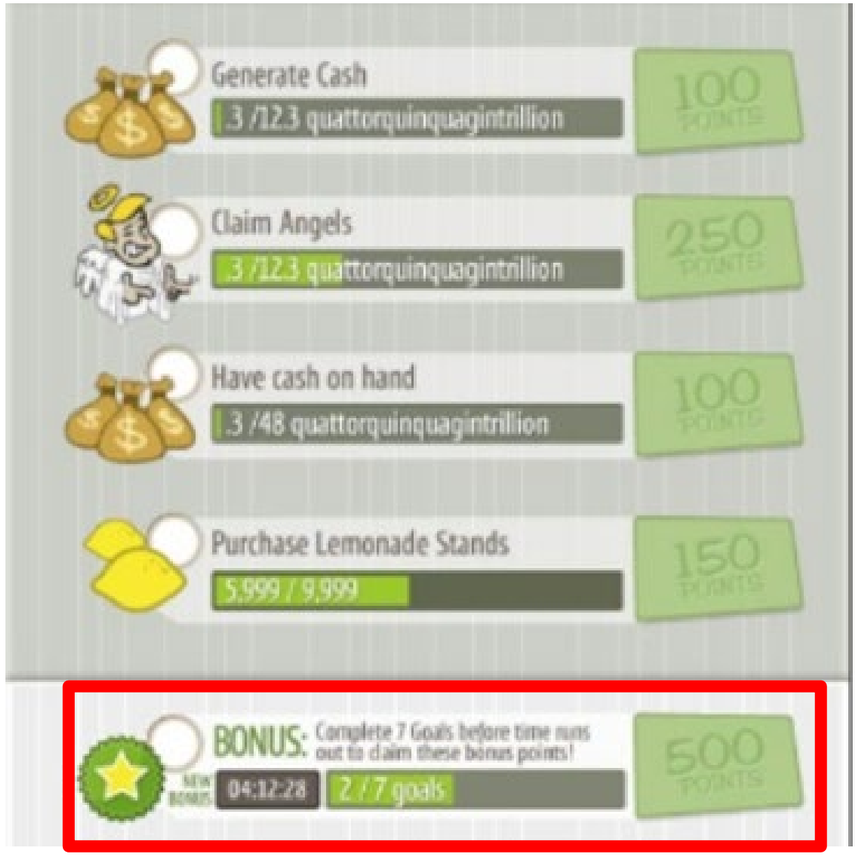
# Building a Solution: v3

## Goal

Reduce frustration from time limit

## Features

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



# 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

# 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

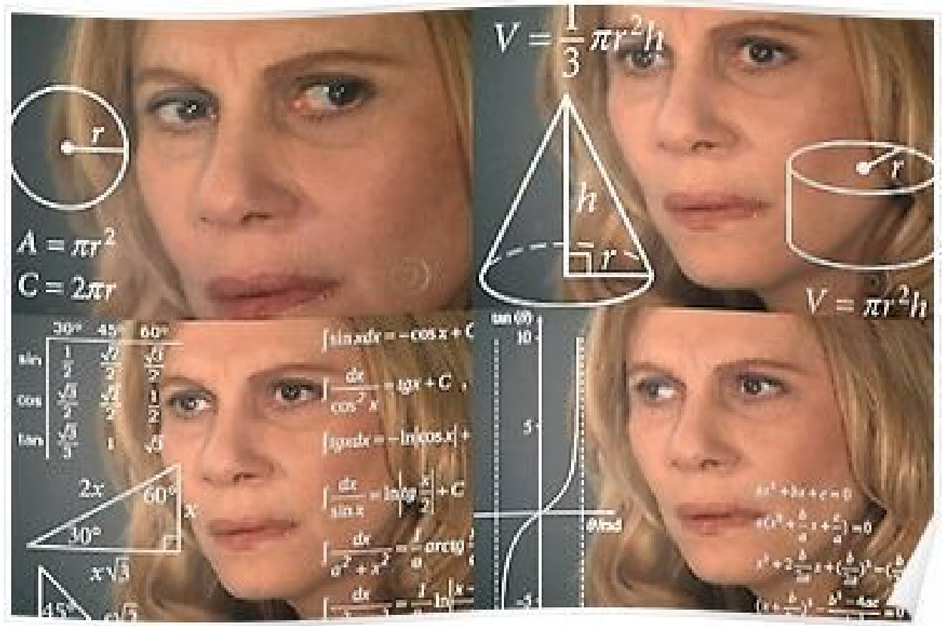
### What works

- 4 tasks as once give the player more options

### What doesn't

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

# Building a Solution: v3



# Building a Solution: v4

**Goal**

Simplify

# Building a Solution: v4

## Goal
Simplify

## Features
- New UI
- No time limit

# 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

# 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

# Building a Solution: v4

# Building a Solution: v5

**Goal**

Add some delight

# Building a Solution: v5

## Goal

Add some delight

## Features

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

# Building a Solution: v5

## Goal

Add some delight

## Features

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

## Playtest Results

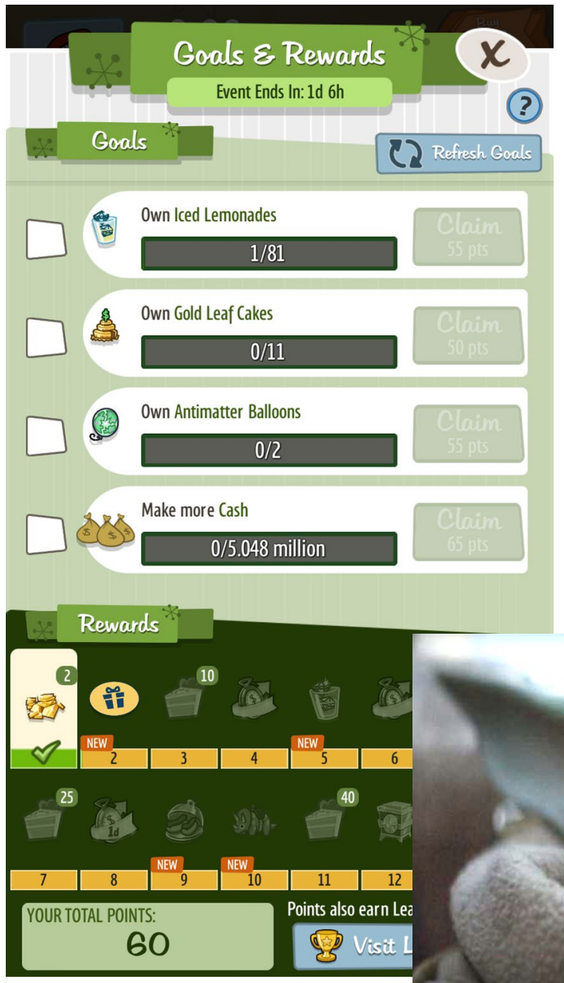
### What works

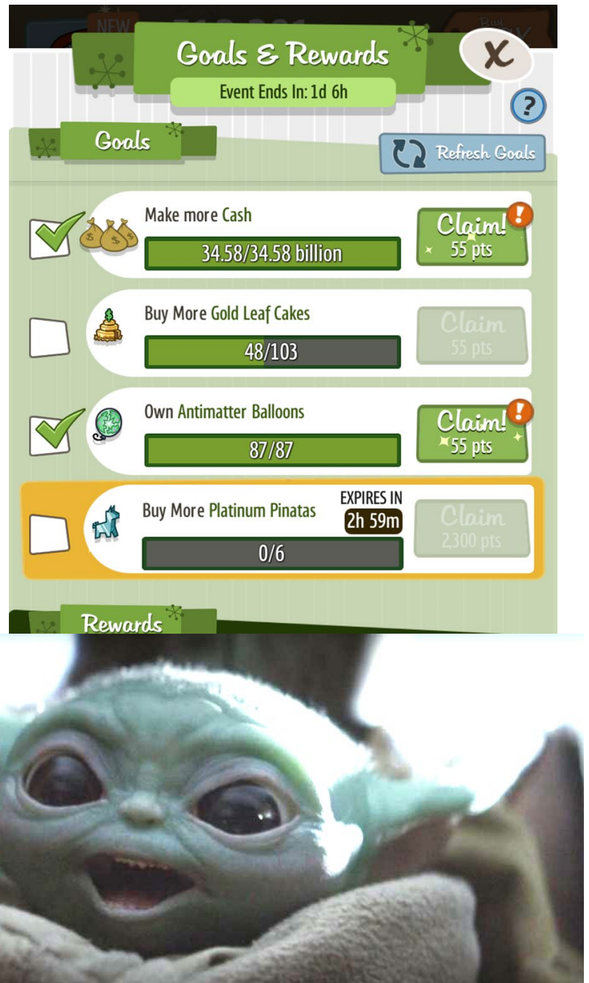
- The delight caused by the surprise goal

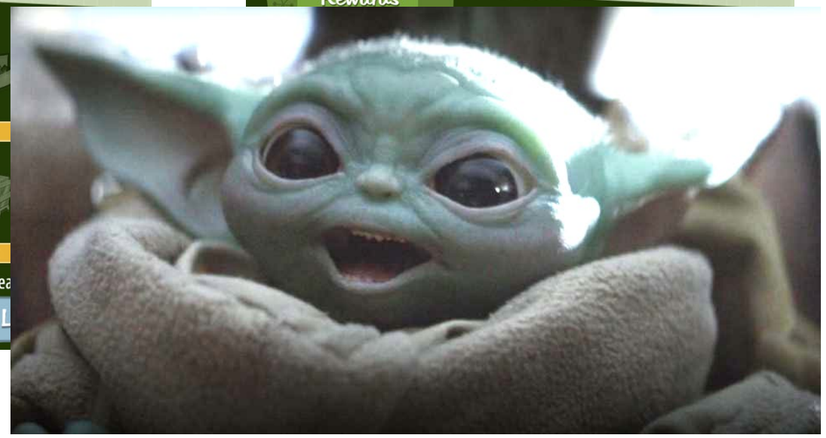
### What doesn't

- Nothing major

# Building a Solution: v5



# Building a Solution: Summary

## v1

Goals every 4 hours

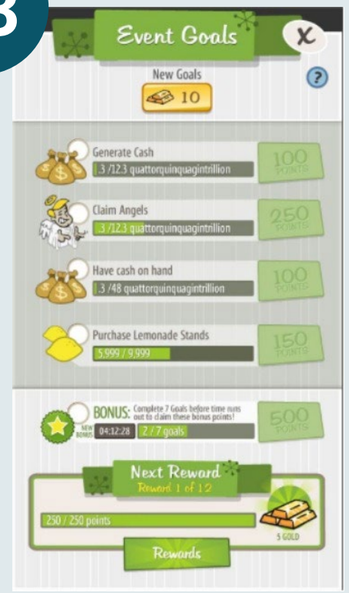
**If you add objectives, when there aren't any, players tend to disengage**

## 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!**

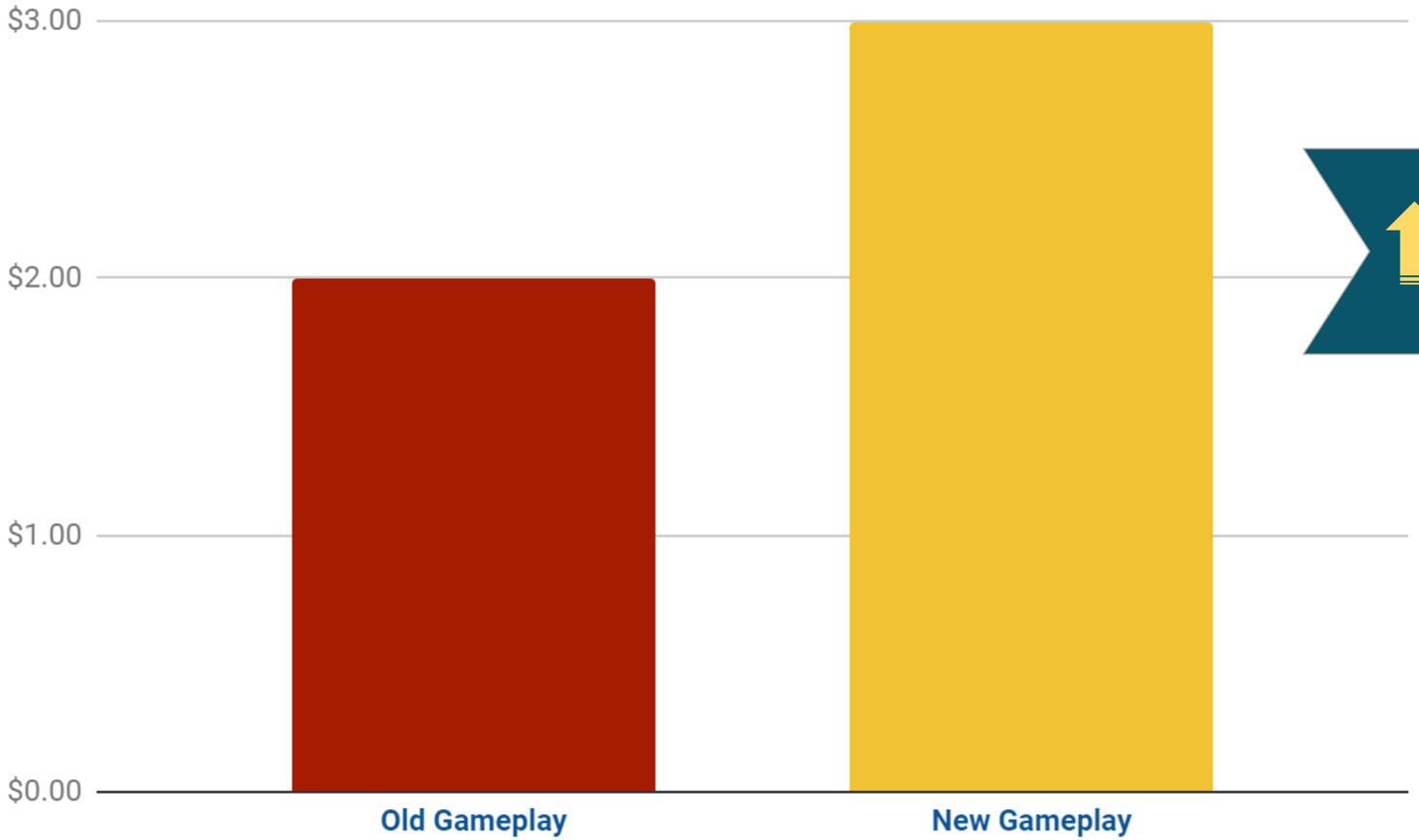
## 1. DATA

## 2. HYPOTHESIS

## 3. SOLUTION

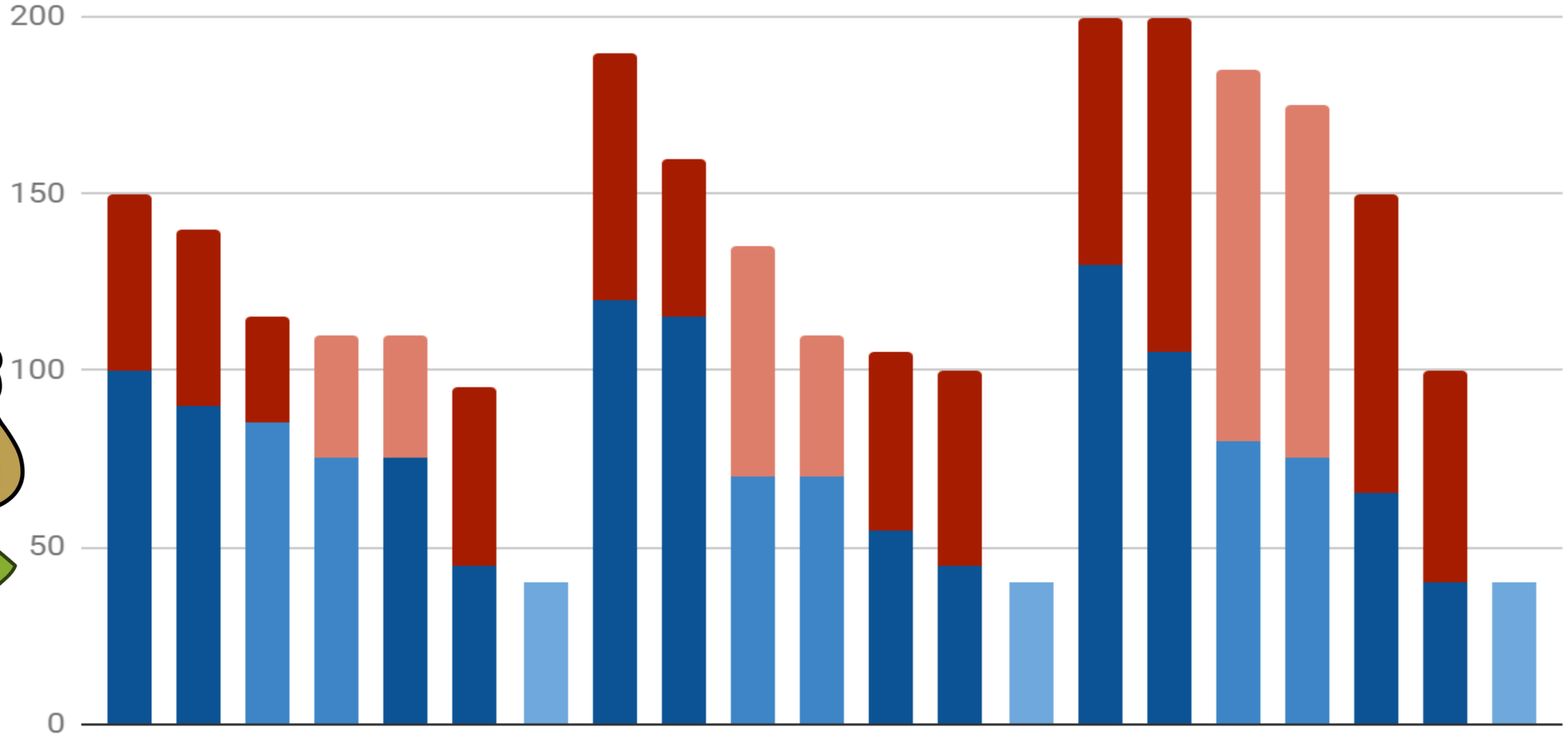
## 4. TEST

# A/B Testing the Solution




**ARPDAU during the event**

# A/B Testing the Solution




**Revenues by day of the week**

# Takeaways

## PROCESS

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

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- 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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## 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

# Thank you!

## GABRIEL LEFEBVRE

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