

Scope Statement

Project Justification

The need that this project fulfills is the market demand for a casual game. Casual games and mobile games have increased in popularity since the introduction of smartphones. This game would be popular with people who are looking to pass time. Mobile game demands are steady, and expected to reach 60 Billion annual downloads by 2018 (Vserv). A casual game like Grouchy Donalds would appeal to all audiences due to the colourful levels and simplistic goals.

Project's Products

Grouchy Donalds is a game similar to the popular game for mobile devices, Angry Birds, by app developer Rovio. The user will take the role of the Donalds and launch projectiles (the Donalds) at the evil Yahoos, for stealing their marbles. When the Donalds make contact with a Yahoo, the Yahoo is instantly destroyed. To pass a level, the player must defeat all the Yahoos situated on the various platforms. The complexity of the levels, as well as, the number of Yahoos and Donalds would increase as the levels progress. Once the player has beaten all 5 levels, they will become the Master Donald and rule over the kingdom of Ajax/Pickering.

Project Deliverables

- Project Charter
 - Assigned project manager
 - Constraints
 - Assumptions
 - List of key stakeholders

- Project Plan
 - Scope Statement
 - WBS
- Risk Management
 - Risk Analysis
 - Probability-Impact Matrix
 - Risk Response Plan

Product Deliverables

- Design Documents
 - UML Diagram
 - Flow Diagram
 - Design Document
- Working Code
- Testing Documentation

Project Objectives

In order for the project to be considered a success, the following criteria must be met:

- All bug tests have passed and the product works like it was planned
- Product is submitted on time, and all scheduled submissions were met
- An overall mark of 90% or more has been achieved

Work Breakdown Structure

1. Documentation

- 1.1. Project Charter
- 1.2. Team Norms
- 1.3. Game Design Document
- 1.4. Scope Statement
- 1.5. Work Breakdown Structure
- 1.6. Risk Management Plan

2. Create Game

2.1. Art Assets

2.1.1. User Interface

2.1.1.1. Menus

2.1.1.1.1. Main Menu

2.1.1.1.1.1. Title

2.1.1.1.1.2. Background

2.1.1.1.1.3. Logo

2.1.1.1.1.4. Play Button

2.1.1.1.1.5. Quit Button

2.1.1.1.2. Level Select

2.1.1.1.2.1. Background

2.1.1.1.2.2. Level Buttons

2.1.1.1.2.2.1. Unlocked

2.1.1.1.2.2.2. Locked

2.1.1.1.2.3. Quit Button

2.1.1.1.3. Tutorial

2.1.1.1.3.1. Close Button

2.1.1.2. Levels

2.1.1.2.1. Level Reset Button

2.1.1.2.2. Return to Level Selection Button

2.1.1.2.3. Quit Button

2.1.1.2.4. Launch Angle

2.1.1.2.5. Launch Power Bar

2.1.2. Characters

2.1.2.1. Donalds

2.1.2.1.1. Red

2.1.2.1.2. Yellow

2.1.2.1.3. Blue

2.1.2.1.3.1. Split Counterparts

2.1.2.1.4. Master

- 2.1.2.2. Yahoos
 - 2.1.2.2.1. Minion
 - 2.1.2.2.2. Corporal
 - 2.1.2.2.3. King
 - 2.1.3. Animations
 - 2.1.3.1. Vanishing Animation
 - 2.1.3.2. Speeding Up Animation
 - 2.1.3.3. Splitting Animation
 - 2.1.3.4. Victory Animation
 - 2.1.4. Levels
 - 2.1.4.1. Background
 - 2.1.4.2. Ground
 - 2.1.4.3. Launching Chair
 - 2.1.4.4. Wooden Structures
 - 2.1.5. Cut Scenes
 - 2.1.5.1. Introduction
 - 2.1.5.2. Ending
 - 2.1.5.3. Credits
- 2.2. Sound Assets
 - 2.2.1. Background Music
 - 2.2.2. Launch Sounds
 - 2.2.3. Bounce Sounds
- 2.3. Controls
 - 2.3.1. Launching Angle
 - 2.3.1.1. Up Directional Arrow to Increase
 - 2.3.1.2. Down Directional Arrow to Decrease
 - 2.3.2. Launching Speed
 - 2.3.2.1. Right Directional Arrow to Increase
 - 2.3.2.2. Left Directional Arrow to Decrease
 - 2.3.3. Special Ability
 - 2.3.3.1. Enter Key to Trigger
- 2.4. Physics
 - 2.4.1. Launching Donalds
 - 2.4.1.1. Different Velocities
 - 2.4.1.2. Different Angles
 - 2.4.1.3. Trajectory
 - 2.4.1.4. Flight Path
 - 2.4.2. Gravity
 - 2.4.3. Collision Detection
 - 2.4.3.1. Bouncing

- 2.4.3.2. Stopping
- 2.4.3.3. Passing Through Yahoos

2.5. Levels

- 2.5.1. Level 1
- 2.5.2. Level 2
- 2.5.3. Level 3
- 2.5.4. Level 4
- 2.5.5. Level 5

2.6. Save File

- 2.6.1. Which Levels are Unlocked

3. Bug Testing

3.1. Check Launch Angles

- 3.1.1. User should not be able to aim higher than 89 degrees
- 3.1.2. User should not be able to aim lower than 0 degrees
- 3.1.3. User should not be able to aim backwards

3.2. Check Launch Velocities

- 3.2.1. User should not be able to exceed the maximum speed
- 3.2.2. User should not be able to exceed the minimum speed

3.3. Check Special Abilities

- 3.3.1. Should only be triggered before Collisions

3.4. Check Locked Levels

- 3.4.1. User cannot pick Locked Levels

3.5. Check Level Reset Button

- 3.5.1. Should Reset Level to Original Values
 - 3.5.1.1. Should work at any Time during Gameplay

3.6. Check Quit Buttons

- 3.6.1. Should Quit Game at any Time throughout Program

3.7. Check Level Selection Buttons

- 3.7.1. Should Return to Level Select at any Time during Gameplay

4. Submit

References

Vserv - Mobile App Usage: E-commerce gaining popularity, mobile gaming demand steady
<http://www.vserv.com/mobile-app-usage-e-commerce-gaining-popularity-mobile-gaming-demand-steady/#sthash.I6lxZ9MC.dpuf>