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Team 4 - Clayton Homes

Project Charter

February 7th, 2020

Team Members: Jeffrey Simpson, Kendall Land, Grant Ley, Matthew Sprader, Robert Thompson, and Justin Murphy

Concept

We are creating a mobile game titled "Kid-Struction" that can be deployed on Android tablets at Clayton Home Centers. The game is intended for children ages 7 - 12 and will teach them about the home building, buying, and delivery process that is used by Clayton Homes. The player will start by designing and building their home. They will design their floor plan and play minigames to build the walls, install plumbing, etc. The player will then play a minigame where they will drive a truck and deliver the home to its location. Finally they will play a minigame where they will set up the house at the location.

The following was submitted to Tennessee Tech as part of the original request:

"Students will work with members of our Retail group to define and implement a series of educational games for kids. The game should run on mobile devices and help kids learn about Clayton products, the general home building process, the home buying process, financing, insurance, etc. TTU students will work with Clayton team members to define requirements for the app but will have a lot of freedom to propose and implement their own ideas as well. The team will be working to evaluate (through end-user test) a previous version of the games developed by a previous team, and then extending the set of available games buy developing new concepts that align with the original aims of the project."

Elevator Statement

For children of home buyers **who** want to play entertaining games, **the** Clayton Homes game app **is a** collection of high quality minigames **that** provides a fun and educational experience. **Unlike** other mobile games, **our solution** provides insight into the home building and buying process with an emphasis on Clayton Homes branding.

Measures of Success

Time: Deliver a quality, working app by the deadline.
Scope: Satisfy the needs of the customer adequately without going overboard.
Quality: Deliver an app with a uniform UI/UX that exceeds customer expectations.
Cost: Use funding to help complete tasks while having a conservative mindset.
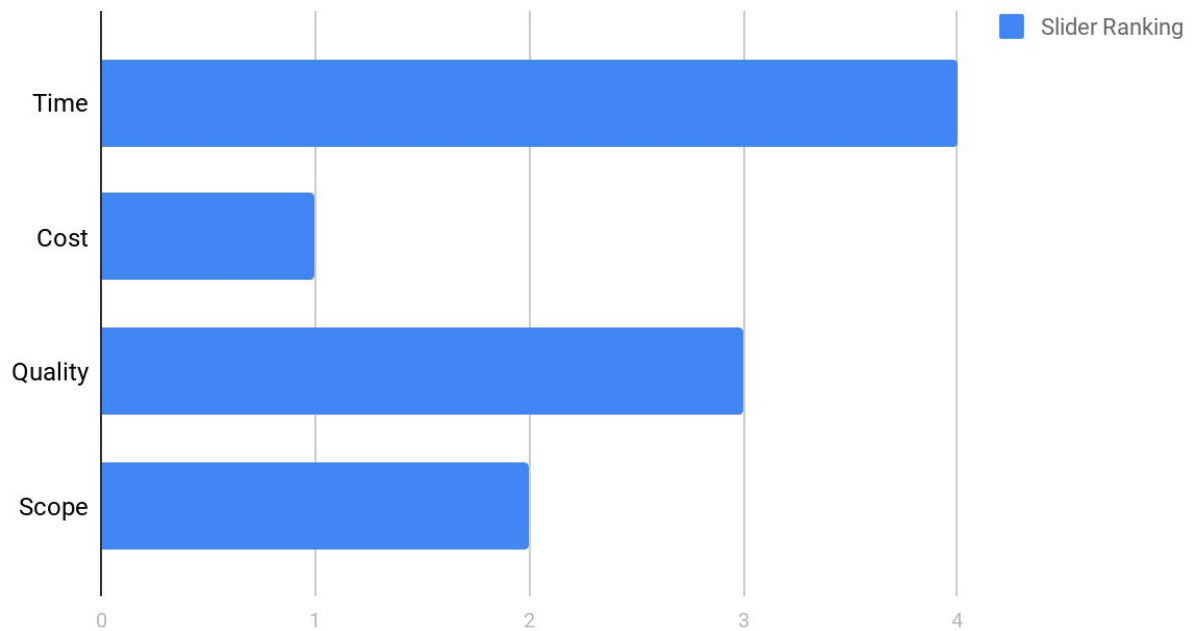
Definition of Done

Must complete the following criteria:
- Completed all of the acceptance criteria on the story
- Tested the added code
- Pushed the changes to Gitlab
- Moved the story to "Verify" column
- Story verified and moved to "Done" by Product Owner

Success Sliders

Points scored

Challenges, Roadblocks, and Risks

- Understanding the customers needs/wants and fully addressing these.
- Time management with other classes and responsibilities.
- Scope creep.
- Balancing intuitive and quality design with simplicity.

Stakeholders

	Low Interest	High Interest
High Power	Agile Coaches Local Associate	Brian Hayes Terry Guarisco Patrick Kelly Devs
Low Power	Parents	Users

Users and Personas

Customer

"Building a great product"

Age: 45
Work: In Clayton Homes
Family: Maybe
Location: Maryville, TN

Goals
- Collaborate with TTU Team 4.
- Sell more homes.
- Receive working code.

Frustrations
- Not enough homes sold.

Bio
A team of people that collaborate with TTU team 4 to create a selection of Clayton related mini-games to entertain children while homes are sold to the parents

Motivation
Incentive

Fear

Growth

Power

Social

Personality
Introvert — Extrovert

Thinking — Feeling

Sensing — Intuition

Judging — Perceiving

Clayton Associate

"Focus child"

Age: 27
Work: In Clayton Homes
Family: Probably not
Location: Various

Goals
- Have children leave me alone while I am selling home.
- Sell more homes.

Frustrations
- Not enough homes sold.
- Children
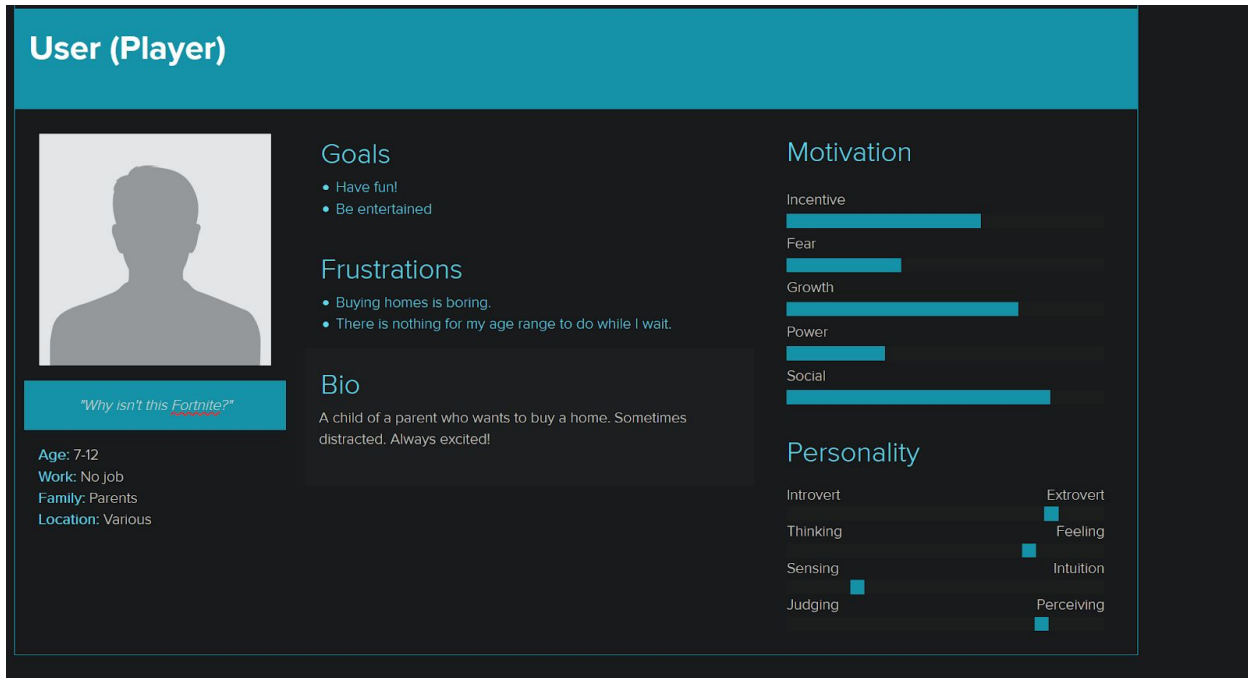- Parents have a hard time focusing on the product while the children are unfocused.

Bio
A Clayton Homes sales associate who wants to work and sell homes.

Motivation
Incentive

Fear

Growth

Power

Social

Personality
Introvert — Extrovert

Thinking — Feeling

Sensing — Intuition

Judging — Perceiving

User (Player)

"Why isn't this Fortnite?"

Age: 7-12
Work: No job
Family: Parents
Location: Various

Goals
- Have fun!
- Be entertained

Frustrations
- Buying homes is boring.
- There is nothing for my age range to do while I wait.

Bio
A child of a parent who wants to buy a home. Sometimes distracted. Always excited!

Motivation
Incentive
Fear
Growth
Power
Social

Personality
Introvert — Extrovert
Thinking — Feeling
Sensing — Intuition
Judging — Perceiving

User Stories

- ○ As a Clayton Homes employee, I want this game to incorporate aspects of the specific home buying process so that the children of the families can feel involved in the process.
- ○ As a Clayton Homes employee, I want this game to run on an Android tablet so that it is compatible with Clayton Homes' technology.
- ○ As a Clayton Homes employee, I want the games to run without the need for an internet connection so that the tablets are not required to be connected to wi-fi.
- ○ As a Clayton Homes employee, I want the start page/main menu to incorporate official Clayton branding so that it is clear to the user who the game is made for/by.
- ○ As a Clayton Homes employee, I want to be able to disable the volume of the music so that I can stay focused on the customer while walking them through the home buying process.
- ○ As Clayton Homes employee, I want the minimum time that the three games will run to be 15-20 minutes so that the children have something to do while the parents/guardian are going through the home buying process/meetings/etc.
- ○ As a Clayton Homes employee, I want there to be a mini-game that incorporates plumbing, so that the game relates to our home building process.
- ○ As a player, I want the driving game to be responsive so that the gameplay appears and feels smooth.
- ○ As a player, I want a main menu, so that I can navigate through the game easily.

- As a player, I want to be able to choose which portion of the game that I can play so that I find playing the game enjoyable
- As a player, I want to be able to pause any of the games, so that I can stop playing temporarily and pick up where I left off.
- As a player, I want there to be a short tutorial available for the driving mini-game so that I know how to play the game.
- As a player, I want a scoring system for the driving mini-game so that I can try to beat my highscore.
- As a player, I want there to be obstacles that I can collide with that takes away one of my lives to provide a challenge for the game.
- As a player, I want there to be a finite amount of lives so that the game will end once I hit too many of the obstacles.
- As a player, I want the driving game objects to move smoothly so that the games look aesthetically appealing.
- As a player, I want the driving game to have a more realistic environment so that I will be more immersed in the game.
- As a player, I want a pause menu so that I can go back to the main menu or restart a game at any time.
- As a player, I want a puzzle game with intuitive graphics that help me understand what is happening.
- As a player, I want to be able to design my own house in game so that I can have a personalized experience.
- As a parent of a player, I want my child to be entertained so that I can go through the process of buying a home without having to be distracted.
- As a parent of a player, I want to be able to purchase homes with minimal distractions.
- As a parent of a player, I want to be able to adjust the volume of the game so that I can reduce the potential for distraction while going through the home buying process.
- As a developer, I want the main menu and level select to be in one scene so that efficiency is increased and size of space required is reduced.
- As a developer, I want an outline for the tutorial for the driving mini-game so that it will be easier to implement.
- As a developer, I want the driving mini-game scene set up in Unity so that implementation of features is easier.
- As a developer, I want to know how to build from Unity to the Android tablet, so that the game can be played by the user (Spike).
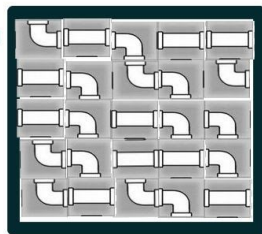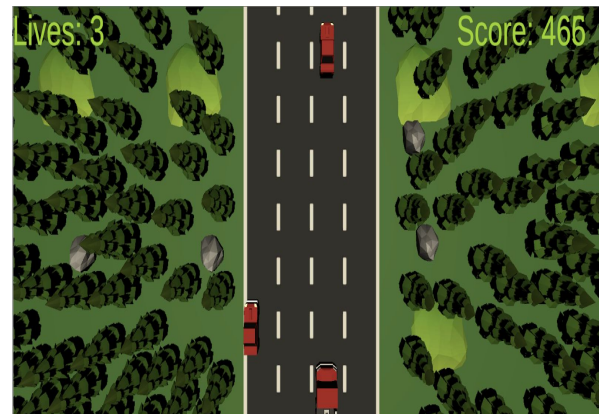
Project Mockups

Floor Planning

Plumbing

Finish

Start

Info txt (Tap to rotate)

Release Plan

Milestones:
- Agreeing on what features should be in the game and the MVP
- Getting one mini game working
- Reaching the MVP
- Additional features/polishing
- Getting the plumbing game working
- Develop a plan for the home building game

Iteration Plan:

Iteration 0

- Complete the Team Charter and the Project Charter
- Agree upon the game design and features
- Configure GitLab and KanBan
- Setup Unity and Visual Studio
- Develop a burn-up chart
- Retrospective
- Iteration Report

Iteration 1

- Complete the Main Menu for the game
- Complete one minigame
- Retrospective
- Iteration Report

Iteration 2

- Develop concept and pseudocode for building game
- Iron out aesthetic issues with driving game
- Start building the plumbing game
- Retrospective
- Iteration Report