Guardian of Earth

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Owner

Vision Statement

For Android smartphone users of all ages who want a fun, quick-performing, and re-playable game, Guardian of Earth is an Android application that takes the formula of a basic spaceship shooter and adds depth to the objective of the game. Unlike many other spaceship shooters, Guardian of Earth possesses a unique simplistic art style making it an application that is not only visually satisfying, but is quick to pick and play.

Requirements

**Actors**

**Users** – Motivated users of the app with sufficient enough knowledge to get the app open, and learn about the game through the tutorial to the main menu.

**Actor-Goal List**

|  |  |
| --- | --- |
| Actor | Goal |
| User | Navigates easily through main menu |
|  | Play the game |
|  | Control spaceship rotation with buttons in lower portion of screen |
|  | Control spaceship laser firing with button in lower portion of screen |
|  | Pause the game |
|  | Press the pause button in upper portion of screen |
|  | Resume the game |
|  | Press the resume button that appears after user has paused game |
|  | Change layout and size of user controls |
|  | Go into settings portion of app to modify settings to user’s liking |

**Product Backlog**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Story ID | Story | Story Points | Priority | Status |
| S1 | Allow user to navigate easily through main menu | 3 | 2 | Not completed |
| S2 | Allow user to play the game with easy to use controls | 15 | 1 | Not completed |
| S3 | Allow user to pause the game while in the middle of playing it | 2 | 3 | Not completed |
| S4 | Allow user to resume the game after they have paused | 2 | 4 | Not completed |
| S5 | Allow user to modify settings like user controls to their liking | 3 | 5 | Not completed |
| S6 | Allow user save high scores | 4 | 6 | Not completed |

Sprint #1

**Sprint Backlog**

|  |  |  |  |
| --- | --- | --- | --- |
| Story ID | Story / Task | Estimated Hours | Actual Hours |
| S1 | Setup android studio project and startup activities | 1 | 3 |
|  | Determine if game needs loading screen to show during the loading of game assets | 1 | 1 |
|  | Design main menu ui | 1 | 0.5 |
|  | Code main menu ui | 2 | 2 |
|  | Test main menu ui and app startup | 2 | 1 |
| S2 | Determine best algorithm for game loop | 1 | 2 |
|  | Code game loop | 2 | 3 |
|  | Test game loop with placeholder animations | 2 | 5 |

**Retrospective**

I thought my first iteration under the agile methodology went pretty well. I planned to do several tasks for story 1 and story 2. What could have gone better though, was in the beginning of the iteration, I definitely underestimated the learning curve of developing an android app, and simply using Android Studio. So I plan to, in the future, take that into account when planning out my tasks for an upcoming sprint. I also experienced some difficulty in testing game loop, which resulted in an essential complexity rather than an accidental one. That is because, testing the game loop is inherent to the problem, because I don’t have all the game elements in place to test the game loop. So I guess, what I didn’t realize off the bat, is that I will need to test the game loop as I continue to add game elements to the scene to maintain a good performance for the game. So in the future, I will try to plan out and notice those essential complexities beforehand so I don’t waste time on trying to solve something that can’t be solved yet. Overall, I feel the sprint went pretty well.

**Project Velocity: 8**

Sprint #2

**Sprint Backlog**

|  |  |  |  |
| --- | --- | --- | --- |
| Story ID | Story / Task | Estimated Hours | Actual Hours |
| S2 | Put placeholder objects into game scene: spaceship, earth, buttons for rotating, button for firing | 4 |  |
|  | Add more definition to game object interface | 2 |  |
|  | Capture button touches for rotating spaceship | 3 |  |
|  | Rig up buttons to rotate the spaceship when they are tapped | 4 |  |