

High Level Requirement Document

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We will create a standalone interface where users, upon running our game, will be presented with three options on the home page: Sign In, Continue as Guest, and Sign Up. If the user chooses to Sign In, they will be asked to enter their @usc.edu email ID. The user will be forwarded to their account upon validation of email address, otherwise they will be told to re-enter their email address, with a descriptive error message. If the user does not attend USC, and chooses to sign in as a guest, they will be eligible to access the gaming interface, but any progress made will not be saved on the server. This means that any high score they achieve will not be acknowledged and saved from the interface's side. The sole purpose of using Guest Mode will be to get some practice. If the user decides to Sign Up, they will be redirected to a page where they can enter personal information, including, but not limited to, a USC email ID, first name and last name combination, and choice of a custom aircraft design, music, and scenery. Upon validation of email, the user will be forwarded to a demo screen, where they can see tutorials and customize controls. If the user is a returning user, under a different ID, they can skip the tutorial, and start playing the game.

(Changes: We decided not to implement email verification, aircraft was scrapped and became a falling rocket the user needs to land. There is a fixed background and no tutorial)

When the user starts the game, the aircraft starts at default position, at approximately two-thirds of the height of the screen. A timer counts down 3-2-1 and the plane takes off, traversing in a polynomial path based on its prior acceleration provided by the user, by rapidly tapping the space key, before takeoff. The user must repeatedly tap the space key to maintain their height. At some point, the plane will have lost all its altitude and crash. The distance traversed by the plane, before the tragedy occurs, will be calculated and displayed on the screen. After a few seconds of waiting, or a double tap on the space key, the user will be redirected to the leaderboard screen, where they see the maximum distances traversed globally. They can then see if their flight has made it on to the leaderboard. If their flight made the cut, then the leaderboard will be updated with their name and distance traversed. Now the user will be presented with the final choice: Restart or Quit.

(Changes: Rocket falls from center of screen, when landed goes to next level, if crashed, goes to leaderboard automatically.)

The user can, and is encouraged to, challenge their friends who also have our game installed. One user can request the other users to play against him or her, and once all others have accepted their request, the game starts on its own with a countdown from three. Each time some user crashes and burns, a unique sound will be played to alert other users that some player has gone down. Along with background sounds, each sound file will run in its own thread. After every player has crashed their plane, they can all view each others flight statistics - how far the other users were able to traverse.

(Changes: There is a sound for landing and crash, but multiplayer is not a current feature, however multiple users scores are compared and displayed in leaderboard.)

Users will also have the choice to access custom options, where they can change the background scenery and music. The design will be user responsive, and consistent across all resolutions of various computer screens.

(Changes: There are music and background, but they cannot be chosen by the user)