|  |  |  |
| --- | --- | --- |
|  | SSS shall generate a level | Demonstration |
|  | SSS shall change generate the level background | Demonstration |
|  | SSS shall populate the background with entities | Demonstration |
|  | SSS shall play music | Demonstration |
|  | SSS shall play sound effects when entities collide | Demonstration |
|  | SSS shall play sound effects when entities are created | Demonstration |
|  | SSS shall display a score on the HUD | Demonstration |
|  | SSS shall display an icon to represent current weapon type on the HUD | Demonstration |
|  | SSS shall display icons representing lives of the player on the HUD | Demonstration |
|  | SSS shall display instructions in paused menu | Demonstration |
|  | SSS shall allow muting of all sounds with key input | Test |
|  | SSS shall maintain a timer for all entity animations | Analysis |
|  | SSS shall maintain a timer for score | Analysis |
|  | SSS shall maintain a timer for background generation | Analysis |
|  | SSS shall maintain a timer for enemy formations | Analysis |
|  | SSS shall display explosions when entities collide | Demonstration |
|  | SSS shall maintain an invincibility timer for the player | Analysis |
|  | SSS shall maintain animations for all visible entities | Analysis |
|  | SSS shall increase weight of formation type based on enemy survival rate | Analysis |
|  | SSS shall display game over screen when player has no lives remaining | Demonstration |
|  | SSS shall display total score in game over screen | Demonstration |
|  | SSS shall reset the score when the player restarts the game | Test |
|  | SSS shall maintain a timer for player fire rate | Analysis |
|  | SSS shall maintain a timer for enemy fire rate | Analysis |
|  | SSS shall display a HUD | Demonstration |
|  | SSS shall determine enemy weapon type when enemy fires | Analysis |
|  | SSS shall display a blinking animation to represent invincibility state | Demonstration |
|  | SSS shall choose from predefined enemies | Analysis |
|  | SSS shall draw animation frames representing entity states | Demonstration |
|  | SSS shall remove entities which no longer can affect the player | Analysis |
|  | SSS shall remove special effects entities when they are out of the display area | Demonstration |
|  | SSS shall ignore entity collisions of same faction | Test |
|  | SSS shall use images of letters to create words | Test |
|  | SSS shall display words on the game screen | Demonstration |
|  | SSS shall keep track of mouse position | Analysis |

Level - The visible area of interaction

Background - Images that do not affect gameplay

Score - Points accumulated by player

Lives - Amount of chances a player has

Icon - Image that represents an entity

Invincibility timer - The amount of time a player is invincible from enemy entities

Animation - set of images that represent entities

Visible - within level

Weight - probability rate of occurrence

Survival Rate - amount enemy entities that have passed the player

Pause - game state where timers do not affect player, enemies, or score

Unpause – game state where timers are re-enabled

Fire Rate – time between creation of two weapon entities

HUD – Heads Up Display – Graphical representation of data important to the player, i.e. score, weapon type, and lives

Restart – the reset of all stats, timers, and score of the game

Special Effects – Visual pleasantries

Faction – label to differentiate entities of player from entities of enemy.