INITIAL GOALS

NAME: Michael Peet, Weihan Li, Rueban Rasaselvan

LIST OF GENERIC GRAPHIC CONCEPTS YOU WISH TO ACCOMPLISH:

Credits, Scrolling, Menus, Buttons, Collision Detection, Artificial intelligence (time permitting), Adapting Terrain (time permitting)

FUNCTIONAL ASPECTS:

- There will be a menu bar in the North Region of the frame, giving the user the option to exit, restart the game (time permitting), save the game (time permitting), or change the difficulty (time permitting).

- There will be a Heads Up Display in the South Region of the frame, displaying health

- There will be a character of some sort in the centre of the screen, with a background behind him. The background will move based on keyboard inputs from the user.

- There will be obstacles in the frame that the character will have to use (ex. Platforms to stand on, hills to climb)

- The character will have a weapon that can shoot projectiles to kill enemies.

- There will be enemies in the frame that the character will have to either kill or avoid (time permitting)

- If hit by an enemy, the health of the player will decrease until he dies (time permitting)

- If killed, the player will have the chance to restart the mission, or continue from the previous checkpoint (time permitting)

- There will be checkpoints that the character can use to save his game (time permitting)

ARCHICTECTURUAL ASPECTS:

- A frame is initialized. A main panel is created in the frame. It will be set to a border layout

- Three panels will be made from the main panel. They will be a menu bar (North), a Health Bar (South), and a central panel with game contents. All buttons on the menu bar will have their own actionlisteners.

-Health will be updated by passing a boolean value from the central panel to the south panel (this will be collision detection)

- The player will be controlled by the W, A, S, D, SPACE keys. These will be triggered by keylisteners.

- Enemies and the player will have hitboxes. As will the projectiles launched from the player’s weapon.

**Planned Steps**

|  |
| --- |
| **New incremental feature of each step:** |
| Make a frame with main panel |
| Put new panel with menu bar in top of frame |
| Put new panel with health bar in bottom of frame |
| Put image hero into centre of frame |
| Put hero on top of background |
| Move hero around, possibly with mouse clicks first |
| Move background image around with W A D and Space |
| Add a ground level |
| Add gravity |
| Add obstacles |
| Add enemies |
| Add Credits |
| Add Adapting Terrain (this will be super difficult so we likely will not be able to do this) |
|  |
|  |
|  |