Game States:

* **Intro**
  + Show Instructions in multilabel
  + Everything else hidden
* **GamePlay**
  + instructions hidden
  + btnReset hidden
  + btnQuit hidden
  + All sprites shown
  + score updating when a player makes it through tentacles
* **Pause**
  + instructions hidden
  + sprites hidden
  + btnQuit shown
  + btnReset shown
  + lblScore shown
* **Quit**
  + game ends

### Sprites:

* **Ship (made with Kenney’s mixer)**
  + user-controlled character
  + Can move up when user presses the space bar
  + wraps around screen
  + when hits tentacle, game pauses
* **Tentacle**
  + Need one on top and bottom of screen
  + Put in random spots each time, but leaves spot in between for user to cross between
  + Only moves from right to left
  + When reaches left border, resets to right border

### UI components

* **Background**
  + some sort of space background, maybe stars and planets
  + shouldn't make it hard to see any labels or sprites
* **Instructions**
  + Basic instructions screen multilabel
  + When clicked, gameplay starts
* **LblScore**
  + Will remain hidden until gameplay state
  + Gets 1 added to it when tentacles reach left border
  + When player hits tentacles, will remain on screen for pause state
* **BtnReset**
  + appears in pause state
  + When clicked, goes back to gameplay state
* **BtnQuit**
  + appears in pause state
  + when clicked, exits entire game

### Sound Effects

* **Thrust**
  + played when user hits space bar
* **Background music**
  + Something sci-fi oriented, but also 8-bit, maybe like the galaga music
* **Explode Noise**
  + Plays when user loses the game

### Milestones

* Gather placeholder resources
* Get basic form of game class up and running
* Add Ship class - test user control system and mess with forces applied to ship
* Add Tentacle class - needs checkBounds and checkEvents
* Check standard collision - what happens when ship hits tentacle
* Put in upper and lower barries
* Add scorekeeping and lblScore - test
* Add quit button - test
* Add reset button - test
* Add intro - test

### Game tuning parameters

* Force applied to ship when user presses space bar
* Strength of gravity
* speed of tentacles moving right to left

### Stretch goals

* Tentacles have some sort of animation attached to them where they wriggle around, switching between different images
* Ship has a thrust animation on bottom when user presses space bar

Sources for Assets

Ship sprite: <https://kenney.itch.io/ship-mixer>

Background image: <https://opengameart.org/content/planet-surface-textures-gaseous05-1024x512png> and <https://opengameart.org/content/space-bg-planets>

Tentacle Sprite: <https://opengameart.org/content/alien-boss-set>

Thrust sound: <https://freesound.org/people/mango777/sounds/547442/>

Explosion sound: <https://freesound.org/people/MATRIXXX_/sounds/522572/>

Background music: <https://freesound.org/people/pholosho_seloane/sounds/688889/>