Team

Team member	Responsibilities
Christine Chen	- Enemy/obstacle abilities & Enemy ships - Object collisions - Scoring System
Marian Wang	- Player abilities - Text display - Pick-ups

Description of our game
- Player abilities
    - No shooting
    - Able to move up/down/left/right using the keyboard
- Enemy/obstacle abilities
    - Enemy ships can shoot and move in 3 different types of patterns
    - Obstacles have different sizes and move randomly (Not that many)
- Text display
    - 5 Health hearts in bottom left corner
    - "Restart by pressing p" in the middle of the screen for X sec at the start of the game, then count down 3, 2, 1, start!
    - Score counter in bottom right corner
    - "Game Over" in the middle of the screen after all hearts are lost for X sec, then "Restart by pressing p" in the middle of the screen
- Object collisions
    - If you get hit you lose 1 full heart
    - **If enemy ships and obstacles crash, the enemy ship+obstacle dies and creates a small explosion
        - Player needs to avoid the explosion
- Planned features for Milestone 3
    - Pick-ups
    - Scoring system
        - Every second score goes up 1 point
    - Enemy ships
    - *Maybe different upgraded ships when you reach a certain score?

Proposed methodology
- Player abilities
    - Keyboard input for moving (all 4 directions)
    - Avatar animation code from this lab

- Enemy/obstacle abilities
  - Use random number generator to choose a pattern of enemy ships to display out of the 3 pre-specified patterns
  - Use random number generator to make 0-5 obstacles appear
- Text display
  - Draw on the display when necessary
- Object collisions
  - Keep track of the edges of the player's avatar and obstacle, if they overlap then lose 1 heart
  - If the enemy ship and obstacles overlap, create an explosion
  - If the player loses 1 heart, flash red
  - If the player loses all 5 hearts, make an explosion
- Milestone 3
  - Pick-ups
    - Randomly generated location, does NOT MOVE (Fixed position on the screen)
    - Disappears after 5 seconds
    - Types (Whenever you pick something up, show something on the screen)
      - Invulnerability (Won't lose hearts for the next X seconds)
        - Colour the ship rainbow
        - Show a shield
      - +1 Heart
        - Show a heart
      - +random number generator (10 to 100) Score
        - Show random number
  - Scoring system
    - Count seconds and increment the score
  - Enemy ships (See "Enemy/obstacle abilities section above)