Forman Christian College

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COMP 111 C

Project Phase 1

UML Diagram & Documentation

**Description:**

‘Space Shooter’ will be implemented using basic OOP concepts via the pygame library. The goal of the game would be to avoid the incoming asteroids and destroy them whenever the player picks up the “Gun” ability. The more asteroids you avoid, the more points you score. The player will have his own spaceship using which he will avoid the oncoming asteroids. Abilities and power-ups such as an extra life, a shield and a gun will be available for short periods of time throughout the gameplay.

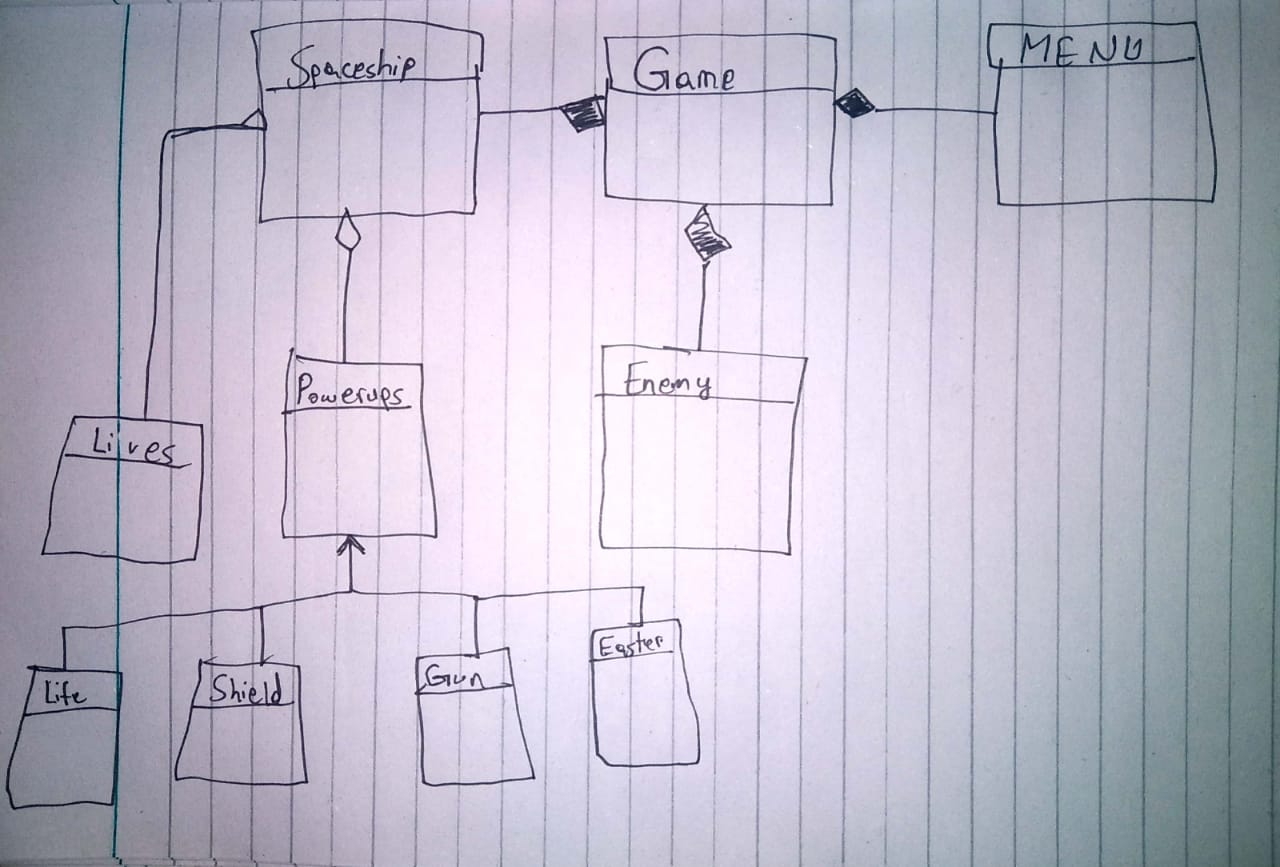
Instructions:

1. WASD to control the spaceship
2. Spacebar to shoot lasers
3. Try to avoid and destroy as many asteroids as you can while also saving yourself from the enemy spaceships that try to shoot at you
4. Pill pickups are dropped after an interval of 30 seconds, these can increment the player’s life by one.
5. If the player runs out of lives, the game will stop and the score will be saved.

**Implementation:**

* Ship class (Base class for player and enemy, and asteroids all alike)
* Player class (This is the player class. An object of this class will be a controllable spaceship which the player can control to avoid asteroids)
  + Heart (Objects of this class will be a pill shaped image that upon contact increments player’s life by 1, unless player has 5 lives)
* Asteroid’s class (Objects of this class will be asteroids that, upon contact, decrement the player’s lives by 1)
* Enemy class (Objects of this class will be enemy spaceships that will shoot lasers at player)
* Score class (Calculates score)
* And a few helping functions

**UML Diagram:**

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