



CS/CE 224/272 - Object Oriented Programming

GALACTIC DEFENDERS

Shayaan Amin (ss08774)

Syed Muhammad Asad Ali (sa09475)

Syed Haidar Raza Naqvi (hn10661)

Instructors:

Asad Tariq

Dean's Fellow Computer Science, DSSE Computer Science, Habib University

Sandesh Kumar

Research Assistant, DSSE Computer Science, Habib University

Habib University

KARACHI, PAKISTAN

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0.1 Introduction

“Galactic Defender” is a 2D space shooter game developed in C++ using the SFML 2.5 library. The player controls a spaceship tasked with defending Earth against waves of enemy ships descending from above. Each wave increases in difficulty, introducing faster enemies and additional power-ups. The goal is to survive as long as possible while earning the highest score by destroying enemies and collecting boosts. The game will feature animated movement, PNG-based textures for all entities, background graphics, and a smooth event-driven game loop.

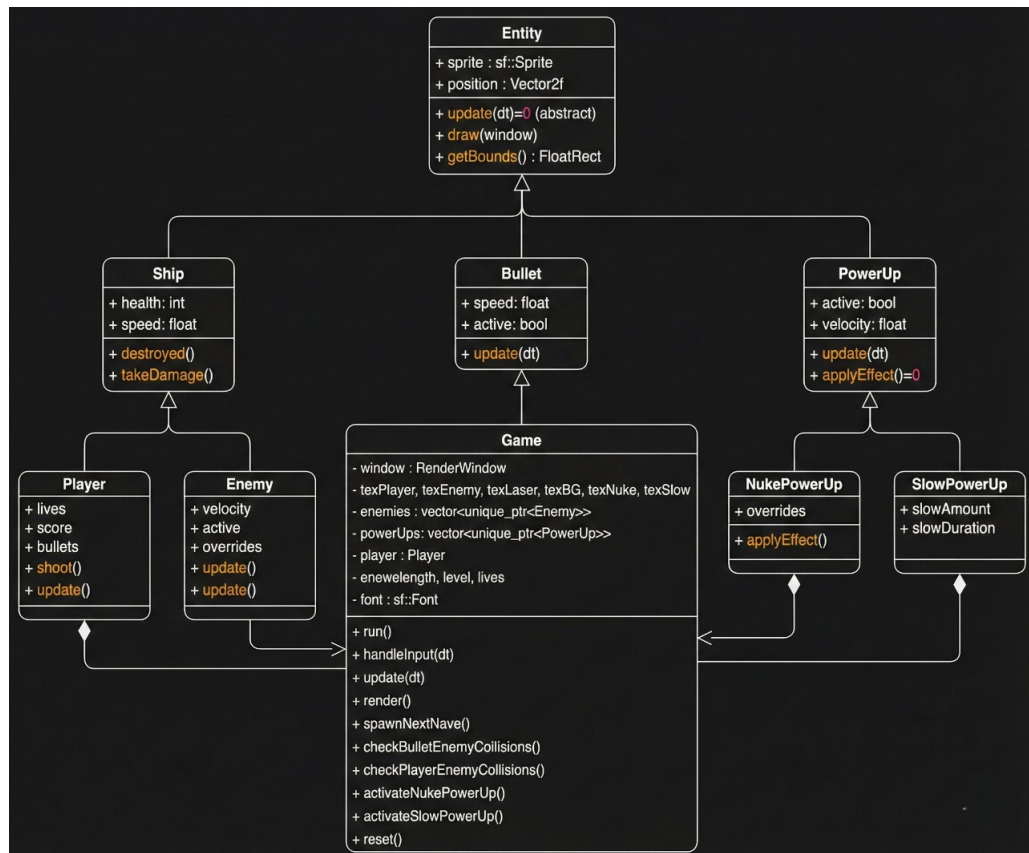
0.2 Git Repository

Clone the repository to run the game:

<https://github.com/Shayaan-Amin/oop-project-galatic-defender>

* Includes README.txt file

0.3 Updated UML Diagram



0.4 Run Commands

For compiling, use the command below in the terminal:

```
1 g++ main.cpp src/*.cpp -Iinclude -I"D:\Object oreinted programming\
  SFML-2.5.0-windows-gcc-7.3.0-mingw-64-bit\SFML-2.5.0\include" -L"D
  :\Object oreinted programming\SFML-2.5.0-windows-gcc-7.3.0-mingw
  -64-bit\SFML-2.5.0\lib" -lsfml-graphics -lsfml-window -lsfml-
  system -o game.exe
```

Use the command below in the terminal to run the game:

```
1 .\game
```

0.5 Instructions

Use A to move left and D to move right.

Use W to shoot bullets.

Use N to activate nuke to clear all enemies from the screen.

use Space Bar to activate slow power up to slow down the enemies.

Press R to restart the game.

*Note: Check power up count before activating power up.