

## Space Invaders Manifest

Project Name: Space Invaders

Description: A Java-based space invaders game, Full functional and show casing specific use of the Object orientated techniques and patterns, such as Factory, Chain of responsibility, Singleton, Open closed principle, Single responsibility.

File List and Descriptions:

- **GameRenderer.java**: Handles the rendering of game graphics and animations.
- **Alien.java**: Defines the Alien entities, their properties, and behaviours.
- **Bullet.java**: Represents the bullets shot by the player or enemies.
- **GameFrame.java**: Sets up the main game window and frame.
- **GameObjectFactory.java**: Factory class for creating different game objects.
- **GamePanel.java**: Manages the main game panel and game loop.
- **GameState.java**: Keeps track of the game's state, like score and level.
- **Main.java**: The entry point of the game, containing the main method.
- **Obstacle.java**: Defines the obstacles encountered by the player in the game.
- **Player.java**: Represents the player character and its interactions

Dependencies:

java.awt.Graphics2D  
javax.swing  
java.util.ArrayList  
java.util.List  
java.util.Iterator  
java.util.Random  
java.awt  
java.awt.event.ActionEvent  
java.awt.event.ActionListener  
java.awt.event.KeyEvent  
java.awt.event.KeyListener

How to Run:

To run the game: Compile the code using ' **javac \* ' and then execute ' **java Main.java '****