**Implementation Manual for Lord of Space Game**

**Overview**

"Lord of Space" is developed using Java and JavaFX. The game features a simple yet engaging gameplay mechanic where the player controls a spaceship, dodges enemies, and shoots to destroy them.

**Main Components**

* **LordOfSpaceApp:** The main class that launches the game and sets up the primary game loop.
* **Player:** Represents the player's spaceship. Handles movement, shooting, and collision detection.
* **Enemy:** Represents enemy ships. Each enemy has its own movement pattern and shooting behavior.
* **Shot:** Represents projectiles shot by the player's spaceship.
* **SpinningPlanet:** A decorative element that adds visual appeal to the start screen.
* **BackgroundObject:** Represents background stars and other objects to create a dynamic space environment.

**Game Loop**

The game loop is implemented using an **AnimationTimer**. It handles game updates and rendering. Within the loop, the following operations are performed:

* Update player position based on mouse movement.
* Spawn new enemies at intervals.
* Move enemies and check for collisions with the player.
* Update and render shots fired by the player.
* Check for game over conditions.

**Collision Detection**

Collision detection is implemented using simple bounding box checks. For each enemy and shot, the game checks whether their bounding boxes intersect with the player's bounding box.

**Assets**

The game assets (images and fonts) are stored in the **src** directory. Ensure that the paths to these assets are correctly set in the code to avoid **FileNotFoundException**.

**Customization**

You can customize various aspects of the game, such as enemy types, spaceship models, and background elements, by modifying the corresponding classes and assets.

**Conclusion**

This implementation manual provides a brief overview of the "Lord of Space" game's structure and key components. By understanding these elements, you can further develop and enhance the game to create a more immersive and enjoyable experience for players.