# 1. Introduction

**Blazn' Barrels** is a fun and challenging shooting game where players try to hit hidden fish in a 3x4 grid. Players choose a difficulty level, shoot their shots, and aim for the highest score. The game tracks the player's high score and features three game rounds.

# 2. System Requirements

## Minimum System Requirements:

- **Operating System**: Windows, MacOS, or Linux
- **Java Version**: Java 17 or newer
- **JavaFX SDK**: JavaFX 17+ (if using command-line compilation)

# 3. Installation and Setup

1. **Download the Project Files**:
    a. Download all Java files (`GameUI.java`, `User.java`, `Barrel.java`, `Game.java`).
2. **Compile the Project and then run in GameUI.java**

# 4. How to Play

## Starting the Game

1. **Launch the Game** by running `GameUI.java`.
2. **Enter Your Name** when prompted.

## Main Menu Options

- **Start Game**: Begins a new game.
- **High Score**: Displays the current high score.
- **Quit**: Exits the game.

## Selecting Difficulty

- **Easy**: 3 bullets (most chances to hit a fish).
- **Medium**: 2 bullets (moderate difficulty).
- **Hard**: 1 bullet (only one chance!).

## Gameplay Instructions

1. After selecting a difficulty, a 3x4 grid will appear.
2. Click on the grid buttons to shoot at the hidden fish.
3. **Hit Feedback**:
   a. If you hit a fish, the button displays **"Fish!"**.
   b. If you miss, the button displays **"Miss!"**.

## Scoring and Rounds

- **Hit a Fish**: Earn **10 points** per hit.
- **Round System**:
  o The game has **3 rounds**.
  o After all bullets are used in a round, the next round starts automatically.
- **Final Score Display**:
  o After 3 rounds, your **total score** is displayed.
  o If your score is higher than the previous best, your **high score** will be updated.

## Game End Options

- **Main Menu**: Return to the main menu to start a new game.

- **Quit**: Exit the game.

# 5. Game Rules Summary

- The game hides fish randomly in the grid for each round.
- Each difficulty level affects the number of bullets and fish in the barrel.
- A player's high score is tracked and displayed.
- After finishing all rounds, the final score is shown.

# 6. Troubleshooting

| Issue | Possible Solution |
| --- | --- |
| JavaFX-related startup error | Ensure JavaFX SDK is correctly configured. |
| Game not running in IDE | Add JavaFX libraries in IDE settings. |
| No display after launch | Ensure the Java version is compatible (Java 17+). |
| Button clicks not working | Check JavaFX setup and recompile the project. |
| High score not updating | Ensure you finish all 3 rounds for score submission. |

# 7. Controls Summary

| Action | How to Perform |
| --- | --- |
| Enter Name | Type your name when prompted |
| Select Difficulty | Click the **Easy/Medium/Hard** button |
| Shoot Grid Cell | Click a grid cell to shoot |
| Retry Game | Click **Main Menu** after the game ends |
| Quit Game | Click **Quit** at any point |

# 8. Additional Notes

- The grid resets after each game and between rounds.
- Your **high score** persists only during the game session (unless further saved in future versions).