# Offline Games Collection

**Project Name:** Offline Games Collection

**Project Moto:** Our goal is to provide users with a versatile platform for playing and enjoying offline games. This project is designed to cater to a wide audience by offering a collection of engaging games, user-friendly interfaces, and leaderboard functionality—all without requiring an internet connection.

**Team Name:** **Static Playmakers**

**Team Members:**


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**Benefits of This Project:**

1. **Offline Accessibility:**
   - ✓ Users can play games without requiring an internet connection, making it suitable for regions with poor or unstable connectivity.
2. **Stress Relief and Entertainment:**
   - ✓ The project provides users with a variety of games to relieve stress and pass leisure time.
3. **Skill Development:**
   - ✓ Certain games, such as Sudoku Solver and Tower of Hanoi, help users enhance problem-solving and logical reasoning skills.
4. **Engagement and Competition:**
   - ✓ The leaderboard feature fosters healthy competition and motivates users to improve their scores.
5. **Educational Value:**
   - ✓ Games like Number Conversion System and Hangman serve an educational purpose while entertaining users.
6. **Sharpens Cognitive Skills:**
   - ✓ The Minesweeper game sharpens users' brain knowledge by improving strategic thinking and problem-solving abilities.
7. **Memory Enhancement:**
   - ✓ The Memory Match game enhances users' memory retention and recall skills through engaging gameplay.
8. **Multiplayer Functionality:**
   - ✓ The inclusion of multiplayer modes, such as "Player vs Player" in Tic Tac Toe, adds social interaction and fun to the gaming experience.
9. **Customization and Variety:**
   - ✓ Users can choose from a collection of games with varying levels of difficulty, ensuring engagement for all age groups.

## Technologies Used in This Project:

| Feature/Concept | Description |
|---|---|
| Java | Core programming language used for logic and application development. |
| JavaFX | Framework for building rich graphical user interfaces. |
| CSS | Used for styling the user interface (application.css). |
| Eclipse IDE | Development environment suggested by .classpath, .project, and .settings files. |
| File I/O | File handling for data storage (users.dat, leaderboard.txt). |
| Resource Management | Use of images and resources (background.png, ic_apple.png). |
| OOP | Evident from modular structures, classes, and inheritance. |
| Modular Programming | Use of module-info.java to define module dependencies. |
| Game Development | Includes logic for games like FlappyBird, SnakeGame, Minesweeper, etc. |
| Game Physics/Animations | For interactive games (e.g., FlappyBird, RacingCar3). |
| Data Serialization | Likely used for saving and retrieving game state (e.g., UserManager). |
| Access Control | Managing user data and game logic securely (User, UserManager). |
| Algorithm Design | Algorithms for games like SudokuSolver, TowerOfHanoi, and 2048. |
| Event Handling | For user interactions within games. |
| Custom Graphics | Customizing visual elements in the games. |

## UI Design: