

# Java Tic Tac Toe Project Guide

## Project Structure

```
TicTacToeGame/  
|- Main.java  
|- LoginScreen.java  
|- GameBoard.java  
|- Player.java  
|- Scoreboard.java  
|- HistoryManager.java  
|- assets/  
    |- profile_pics/
```

## Player.java

```
public class Player {  
    private String name;  
    private ImageIcon profilePicture;  
    private int wins;  
  
    public Player(String name, ImageIcon profilePicture) {  
        this.name = name;  
        this.profilePicture = profilePicture;  
        this.wins = 0;  
    }  
  
    public String getName() { return name; }  
    public ImageIcon getProfilePicture() { return profilePicture; }  
    public int getWins() { return wins; }  
    public void incrementWins() { wins++; }  
    public void resetWins() { wins = 0; }  
}
```

## LoginScreen.java

```
public class LoginScreen extends JFrame {  
    // GUI components for user login and profile picture selection  
    // Opens GameBoard on successful input  
}
```

## GameBoard.java

```
public class GameBoard extends JFrame {  
    // Main game interface with 3x3 board  
    // Tracks player turns, checks for win/draw  
    // Updates scoreboard and saves game history after each game  
}
```

## Main.java

```
public class Main {  
    public static void main(String[] args) {  
        new LoginScreen();  
    }  
}
```

```
}  
}
```

## Features

- Full GUI with Swing
- Player login with profile picture (JFileChooser)
- Game logic: turn switching, win/draw detection
- Scoreboard updates after each win
- End game after 5 wins
- Save game history to a file (game\_history.txt)