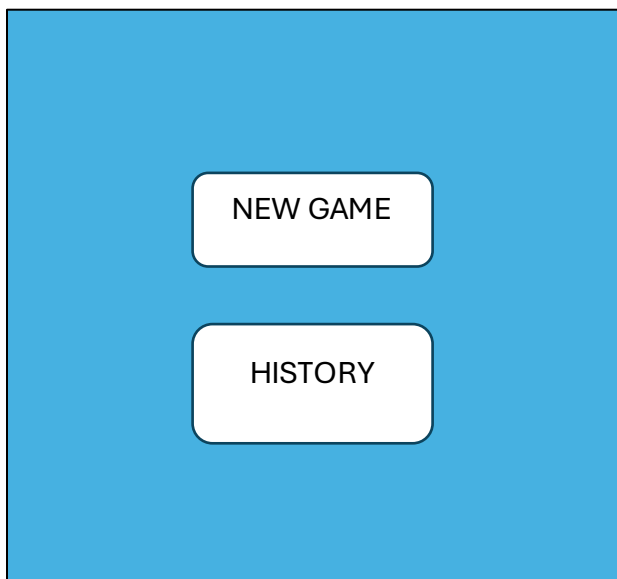# Project Proposal

Overview:

The main aim of the project is making a classic **Tic Tac Toe** game and players can use it easily (user friendly). The history of games played is also saved.

Solution Outline:

Planning to build the solution like this:

User sees first page like this

If user chooses history, then this page will be seen:

```
Game no.     Date/Time    Won by/Draw

1.

2.

3.
```

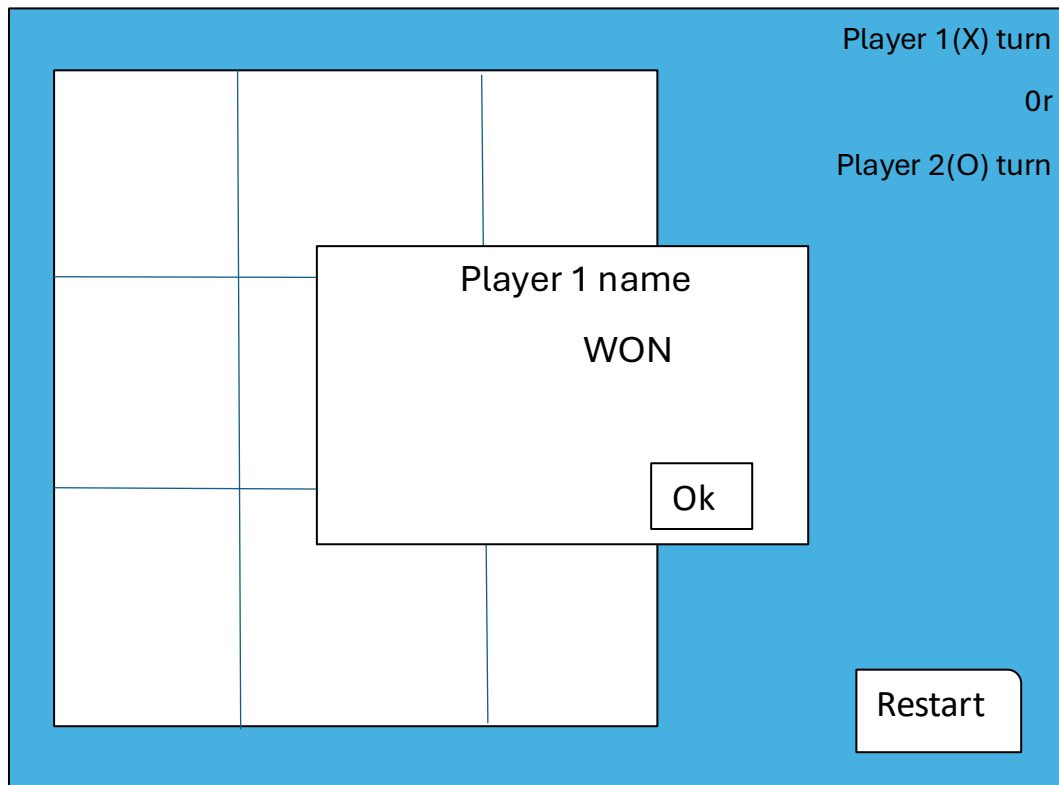If user chooses New Game, then this page will be seen:


```
Player 1(X) name:
    input

Player 2(O) name:
    input

Back                          Next
```

Here players can input both their names and marks(X&O) are assigned for players respectively.

After clicking next, the game starts, and next page will be seen like this:

The players can select the tiles of grid with mouse, and they can see whose turn it is, if one of the players wins the game then it shows the name of the player won. There is also an option to restart the game.

Classes Used:

Player: This class will take the player's name as input and manage player-related information. It will pass over its inputs in both Game UI and History Classes.

History: This class will store the information of the game in a CSV file, recording the date and time when the game is played. It will also allow to modify records of the previously played game.

Tic Tac Toe Logic: This class will determine how the game functions, enforcing the rules of Tic Tac Toe, and will declare the result of the game (i.e. it is a win or draw).

Game UI: This class will help us to create and embed Tkinter UI with other python classes.

Technology Stack:

1. **Programming Language:** Python 3.x
2. **GUI Interface**: Tkinter

3. **Data Storage**: CSV Files
4. **Development Tools**: VS Code
5. **Testing Frameworks**: Unittest (for unit testing python modules)

Team Structure:

Team members:

1. A.Pardhiv : History and CSV files manager
2. Dhyan: Game Logic and UI interfaces
3. Suhith: Game Logic
4. T.Hemanth: UI interfaces and first page

Timelines:

The project will be completed by 11th October,2024 and testing of the project will be done 2 days and finally the project will be uploaded on 13th October,2024. All works will be done in parallel during the break.

Collaboration and Communication:

For sharing the project files between the team members, it will be done through **GitHub** and for daily communication we are going to use **GMeet** for meetings and discussions about the project.