CODE CLASH

SEASON-2

TIC TAC TOE GAME

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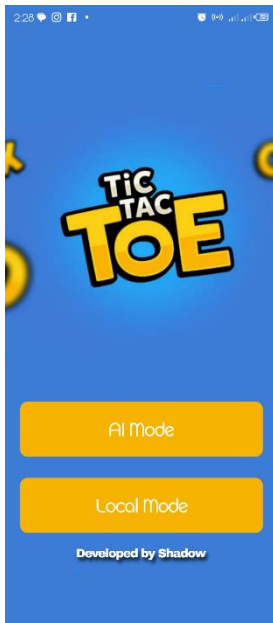➢ Arham

Tic Tac Toe

Android Application Development

Objective

Tic Tac Toe is classical game consist of 3x3 grid, where both players have to write there 'X's and 'O's in order to achieve, in-line 3 pairs to win the game. This is the project made by the group from IVth Semester in Riphah Internal Colleges Thokar Campus, Lahore. This game can be played by any age.

Functionalities

Here is the list of functionalities used in this project.

1) Main Menu
2) Buttons Action
3) Artificial Intelligence
4) Game Ending

Main Menu

There are two Modes/Buttons in the **Main Activity** interface "play as 1 player", "play as 2 Players". When we click on anyone of them we move to the **Play Activity (**the interface where players play the game**)**. When we click on **Play as 1P** we can play with **AI**, and when we click on **Play as 2P** we can play with any Friend.
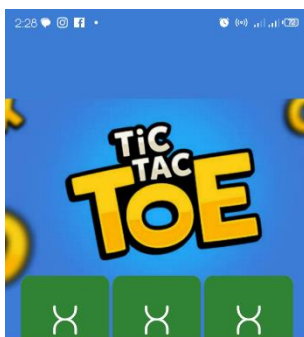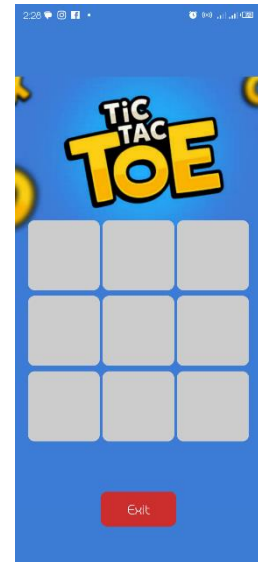
Button Action

This game works with a variable "turn" which acts as a switch between 1st and 2nd player. When any button is clicked a "move" functions work. "Move" functions are the on-click functions on each button which makes a specific move according to their position in the grid. If game is not ended and the button is not clicked before will perform a move, otherwise not.

Artificial Intelligence

"Artificial Intelligence" is the most important feature in this game to become able to play as 1 player mode. This function works by checking all the possible ways of winning or losing and makes decision for the next move.

Game Ending

"Game Ending" is the function which calls each time when the move is made. This function consists all the possible ways of game ending like match draw or anyone player get won. If anyone of the player won the match it will highlights the boxes causing the player won by making them green shade.

Technologies

- Android studio
- Microsoft Windows 11
- Java
- Android OS