

DOCUMENTATION

APP Name: CrissCrossGame

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ROLL NO:-1729086

INTRODUCTION:-

Criss-Cross game (also known as noughts and crosses or Xs and Os) is a paper-and-pencil game for two players, X and O, who take turns marking the spaces in a 3x3 grid. The player who succeeds in placing three of their marks in a horizontal, vertical, or diagonal row wins the game.

Because of the simplicity of tic-tac-toe, it is often used as a pedagogical tool for teaching the concepts of good sportsmanship and the branch of artificial intelligence that deals with the searching of game trees.

RULES OF THE GAME:-

1. The game is played on a grid that's 3 squares by 3 squares
2. Player 1 is X and Player 2 is O. They will take turns putting their marks in empty squares.
3. The first player to get 3 of his marks in a row (up, down, across, or diagonally) will be the winner.

GAME CREATION:-

In this app I have created an offline 2 player Criss-Cross game. I have coded the whole game logic, counted player points, added a reset functionality and have handled orientation changes so that the game state is not lost when the device is rotated.

PROCEDURE FOR GAME CREATION:-

1. First I have created the layout by creating 9 buttons within nested LinearLayouts and have even them out over the screen by adding the layout_weight attribute. The player points and the reset button are under RelativeLayout.
2. Then I have created a 2D array of buttons where I have dynamically assigned them with findViewById and setOnClickListener by using a nested

for-loop. Here the clicks on the playing field, switching between players and implementing a method that checks for winner at the end of each turn is handled by going through all rows, columns and diagonals of the playing field and checking if one of them has 3 matching fields. An integer variable counts each round so that we know that if we don't have a winner after 9 rounds, we have a draw.

3. Then I have completed the winning logic by updating the player points and resetting the board and variables and have also taken care of the draw situations.

4. Finally I have taken care of the configuration changes (like an orientation change), by giving the TextViews and Buttons the "freeze Text" attribute and saving the member variables in onSaveInstanceState. I have restored these values in onRestoreInstanceState so that the game progress is not lost.

Also a reset functionality has been implemented that resets the board, points and round count.

SOME SCREENSHOTS OF THE GAME:-

1: The opening screen:-

CrissCrossGame

Welcome to CRISS- CROSS Game

Created by:-Swapnil Bhattacharya

START GAME

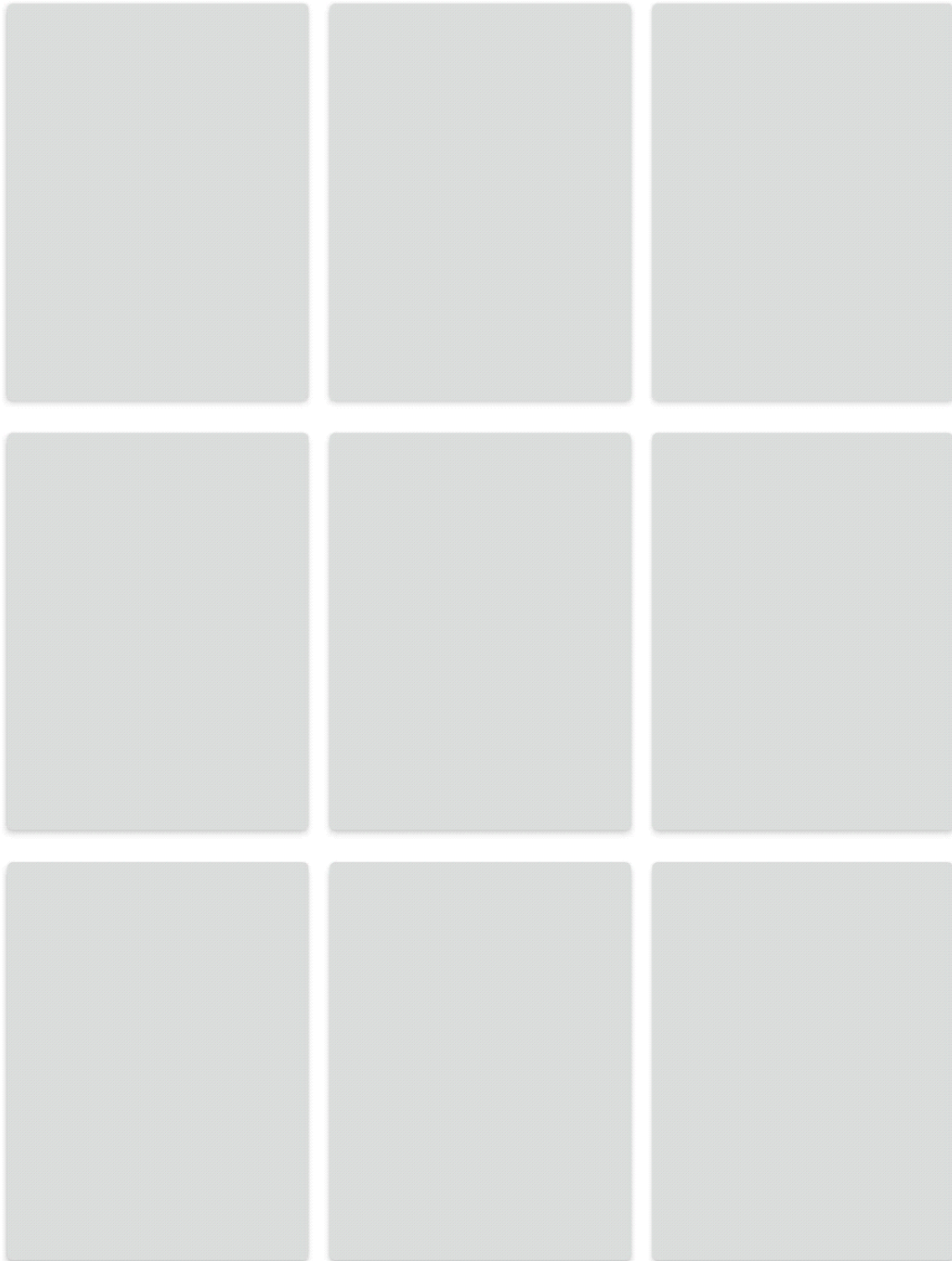
2:-The game board:-

CrissCrossGame

Player 1: 0

Player 2: 0

RESET



3. Gameplay:-

CrissCrossGame

Player 1: 0

Player 2: 0

RESET

X

O

X

X

O

O

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I am thankful to Konnexions and its entire team for giving me this opportunity to learn Android. My experience over this course has been very pleasing and learning from my peers has taught me many good things. Once again, I am thankful to them and I wish each one success