MOTIONCUT

TASK-4

```
#Initialize the game board
board = [" " for _ in range(9)]


# Function to print the game board
def print_board():
    print("  |  |  ")
    print(f"{board[0]} |{board[1]} |{board[2]}")
    print("  |  |  ")
    print("---------")
    print("  |  |  ")
    print(f"{board[3]} |{board[4]} |{board[5]}")
    print("  |  |  ")
    print("---------")
    print("  |  |  ")
    print(f"{board[6]} |{board[7]} |{board[8]}")
    print("  |  |  ")


# Function to check for a win
def check_win(player):
    # Check rows, columns, and diagonals
    for i in range(3):
        if (board[i] == board[i + 3] == board[i + 6] == player) or \
           (board[i * 3] == board[i * 3 + 1] == board[i * 3 + 2] == player) or \
           (board[0] == board[4] == board[8] == player) or \
           (board[2] == board[4] == board[6] == player):
            return True
    return False
```

```
# Main game loop
current_player = "X"
while True:
    print_board()
    print(f"Player {current_player}'s turn. Enter a position (1-9): ")
    try:
        position = int(input()) - 1
        if 0 <= position < 9 and board[position] == " ":
            board[position] = current_player
            if check_win(current_player):
                print_board()
                print(f"Player {current_player} wins!")
                break
            elif " " not in board:
                print_board()
                print("It's a draw!")
                break
            else:
                current_player = "O" if current_player == "X" else "X"
        else:
            print("Invalid input. Try again.")
    except ValueError:
        print("Invalid input. Enter a number (1-9).")
```

OUTPUT:

```
|  |
  |  |
  |  |
---------
  |  |
```

| |

| |

| |

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| |

Player X's turn. Enter a position (1-9):

1

| |

X | |

| |

| |

| |

| |

| |

| |

| |

Player O's turn. Enter a position (1-9):

7

| |

X | |

| |

| |

| |

| |

  | |

O | |

  | |

Player X's turn. Enter a position (1-9):

5

| |

X | |

  | |

  | |

  |X |

  | |

  | |

O | |

  | |

Player O's turn. Enter a position (1-9):

2

| |

X |O |

  | |

  | |

  |X |

  | |

  | |

O | |

| |

Player X's turn. Enter a position (1-9):

9

| |

X |O |

| |

| |

|X |

| |

| |

O | |X

| |

Player X wins!

>