```
import random
import sys
board=[i for i in range(0,9)]
player, computer = '',''
#// Corners, Center and Others, respectively
moves=((1,7,3,9),(5,),(2,4,6,8))
#// Winner combinations
winners=((0,1,2),(3,4,5),(6,7,8),(0,3,6),(1,4,7),(2,5,8),(0,4,8),(2,4,6))
#// Table
tab=range(1,10)
def print_board():
    x=1
    for i in board:
        end = ' | '
        if x%3 == 0:
            end = ' \n'
            if i != 1: end+='---------\n'
        char=' '
        if i in ('X','O'): char=i
        x+=1
        print(char,end=end)
def select_char():
    chars=('X','O')
    if random.randint(0,1) == 0:
        return chars[::-1]
    return chars
def can_move(brd, player, move):
```

```
    if move in tab and brd[move-1] == move-1:
        return True
    return False
def can_win(brd, player, move):
    places=[]
    x=0
    for i in brd:
        if i == player: places.append(x)
        x+=1
    win=True
    for tup in winners:
        win=True
        for ix in tup:
            if brd[ix] != player:
                win=False
                break
        if win == True:
            break
    return win
def make_move(brd, player, move, undo=False):
    if can_move(brd, player, move):
        brd[move-1] = player
        win=can_win(brd, player, move)
        if undo:
            brd[move-1] = move-1
        return (True, win)
    return (False, False)
```

```
#// AI goes here
def computer_move():
    move=-1
    #// If I can win, others do not matter.
    for i in range(1,10):
        if make_move(board, computer, i, True)[1]:
            move=i
            break
    if move == -1:
        #// If player can win, block him.
        for i in range(1,10):
            if make_move(board, player, i, True)[1]:
                move=i
                break
    if move == -1:
        #// Otherwise, try to take one of desired place
        for tup in moves:
            for mv in tup:
                if move == -1 and can_move(board, computer, mv):
                    move=mv
                    break
    return make_move(board, computer, move)
def space_exist():
    return board.count('X') + board.count('O') != 9
player, computer = select_char()
print('Player is [%s] and computer is [%s]' % (player, computer))
result='%%% Deuce ! %%%'
```

```
while space_exist():
    print_board()
    print('#Make your move ! [1-9] : ', end='')
    move = int(input())
    moved, won = make_move(board, player, move)
    if not moved:
        print(' >> Invalid number ! Try again !')
        continue

    if won:
        result='*** Congratulations ! You won ! ***'
        break
    elif computer_move()[1]:
        result='=== You lose ! =='
        break
print_board()
print(result)
```