```python
import
random

data_dic = {'a': " ", 'b': " ", 'c': " ", 'd': " ", 'e': " ", 'f': " ", 'g': " ", 'h': " ", 'i': " "}
Choice_dict = {'Player 1' : " ", 'Player 2' : " ", 'Computer': " "}
var = random.choice(['X','O','$','#','%','&','@'])
GREEN = '\u001b[32m'
YELLOW = '\u001b[33m'
RESET = '\u001b[0m'
RED = '\u001b[31m'
CYAN = '\u001b[36m'
MAGENTA = '\u001b[35m'
BLUE = '\u001b[34m'
BOLD = '\u001b[1m'


def Notice():
    print("""Welcome to the Tic Tac Toe Game,
                            by Apurba Ghosh
This Game involves two Functionality, 1. Player vs Player
                              2. Player vs Computer
Choose an Option from 1 or 2 to Start the game, There are some
functionalities to be noticed, if you want to Quit the game at
any point of time, just type ('exit',) as input,
Rules:
    1) You can't choose a column already filled, doing that it will
    give a prompt as many times as you do that.

    2) Type your name at the very first starting of the program.

    3) Avoid Choosing the same variable for both the user, if played
    Player vs Player.

    4) You will always have to Give the same Variable which you have
    given as the very first input at the starting of the game, note:
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        that you are free to choose any Variables or even numbers and not
        limited to only (X/O). Henceforth, Freedom is granted.
                \n\n""")


def choice():
    x = int(input("""1. Player vs Player
2. Player vs Computer \t Choose: """))
    return (x)


def board(container : str = "", screenwidth : int = 59, sign1 = " ", sign2 = " ", sign3 = " "):
    counter = 0
    while (counter <= 21):
        if (counter == 0 or counter == 14 or counter == 7 or counter == 21):
            container = f"{YELLOW}-{RESET}" * screenwidth
            print(container)
            counter += 1
            continue


        if (counter == 3):
            container = f"{YELLOW}|{RESET}          {data_dic['a']}          {YELLOW}|{RESET}          {data_dic['b']}          {YELLOW}|{RESET}
{data_dic['c']}          {YELLOW}|{RESET}" f"{sign1}"
            print(container)
            counter += 1
            continue


        if (counter == 10):
            container = f"{YELLOW}|{RESET}          {data_dic['d']}          {YELLOW}|{RESET}          {data_dic['e']}          {YELLOW}|{RESET}
{data_dic['f']}          {YELLOW}|{RESET}" f"{sign2}"
            print(container)
            counter += 1
            continue
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        if (counter == 17):
            container = f"{YELLOW}|{RESET}            {data_dic['g']}          {YELLOW}|{RESET}          {data_dic['h']}          {YELLOW}|{RESET}
{data_dic['i']}          {YELLOW}|{RESET}" f"{sign3}"
            print(container)
            counter += 1
            continue

        else:
            container = f"{YELLOW}|                    |                    |                    |"
            print(container)
            counter += 1


def check(a : str ,b : str ,c : str ,d : str ,e : str ,f : str ,g : str ,h : str ,i : str ):

    # Part 1:
    if (a == b == c):
        return (a)
    if (d == e == f):
        return (d)
    if (g == h == i):
        return (g)

    # Part 2:
    if (a == d == g):
        return (a)
    if (b == e == h):
        return (b)
    if (c == f == i):
        return (c)

    # Part 3:
    if (a == e == i):
        return (a)
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        if (c == e == g):
            return (c)
        else:
            return (" ")


def computerOverwrite(user : str):
    if (data_dic[user] != " "):
        return (True)
    else:
        return (False)


def overwrite(user : tuple):
    if (data_dic[user[1]] != " "):
        print(f"{RED}Sorry the Column is already filled, Please Choose any other Column...{RESET}")
        return (True)
    else:
        return (False)


def game():
    Notice()
    choices = choice()
    name2 = ""
    if choices == 2:
        name1 = input('Player 1, Enter Your Name: ')
    else:
        name1 = input('Player 1, Enter Your Name: ')
        name2 = input('Player 2, Enter Your Name: ')
    board()
    winner = ""
    counter = 1
    continuous_check = " "
    f = ""
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while (counter <= 9):
    if (counter%2 != 0):
        user1 = eval(input("Player 1, Enter the Cloumn: "))
        if (user1[0] == 'exit'):
            print(f"{BLUE}Thanks For Playing{RESET}")
            f = 'a'
            break
        if (Choice_dict['Player 1'] == " "):
            pass
        else:
            if (Choice_dict['Player 1'] == user1[0]):
                pass
            else:
                print(f"{RED}Sorry You can't take {user1[0]}, You have to choose {Choice_dict['Player 1']}{RESET}")
                user1 = eval(input("Player 1, Enter the Cloumn: "))
                if (user1[0] == 'exit'):
                    print(f"{BLUE}Thanks For Playing{RESET}")
                    f = 'a'
                    break
                while (user1[0] != Choice_dict['Player 1']):
                    print(f"{RED}Sorry You can't take {user1[0]}, You have to choose {Choice_dict['Player 1']}{RESET}")
                    user1 = eval(input("Player 1, Enter the Cloumn: "))
                    if (user1[0] == 'exit'):
                        print(f"{BLUE}Thanks For Playing{RESET}")
                        f = 'a'
                        break
                if (user1[0] == 'exit'):
                    f = 'a'
                    break
                else:
                    pass
        info = overwrite(user1)
        if (info == True):
            user1 = eval(input("Player 1, Enter the Cloumn: "))
```

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if (user1[0] == 'exit'):
    print(f"{BLUE}Thanks For Playing{RESET}")
    f = 'a'
    break
while (user1[0] != Choice_dict['Player 1']):
    print(f"{RED}Sorry You can't take {user1[0]}, You have to choose {Choice_dict['Player 1']}{RESET}")
    user1 = eval(input("Player 1, Enter the Cloumn: "))
    if (user1[0] == 'exit'):
        print(f"{BLUE}Thanks For Playing{RESET}")
        f = 'a'
        break
if (user1[0] == 'exit'):
    f = 'a'
    break
info2 = overwrite(user1)
while (info2 != False):
    user1 = eval(input("Player 1, Enter the Cloumn: "))
    if (user1[0] == 'exit'):
        print(f"{BLUE}Thanks For Playing{RESET}")
        f = 'a'
        break
    info2 = overwrite(user1)
    if (Choice_dict['Player 1'] == user1[0]):
        pass
    else:
        print(f"{RED}Sorry You can't take {user1[0]}, You have to choose {Choice_dict['Player 1']}{RESET}")
        user1 = eval(input("Player 1, Enter the Cloumn: "))
        if (user1[0] == 'exit'):
            print(f"{BLUE}Thanks For Playing{RESET}")
            f = 'a'
            break
        while (user1[0] != Choice_dict['Player 1']):
            print(f"{RED}Sorry You can't take {user1[0]}, You have to choose {Choice_dict['Player 1']}{RESET}")
            user1 = eval(input("Player 1, Enter the Cloumn: "))
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                    if (user1[0] == 'exit'):
                        print(f"{BLUE}Thanks For Playing{RESET}")
                        f = 'a'
                        break
                info2 = overwrite(user1)


        if (user1[0] == 'exit'):
            f = 'a'
            break
        else:
            pass
    else:
        pass


if (user1[1] == 'a'):
    data_dic['a'] = f"{RED}{user1[0]}{RESET}"
    board(sign1=f"{GREEN} <<--- {RESET}")
if (user1[1] == 'b'):
    data_dic['b'] = f"{RED}{user1[0]}{RESET}"
    board(sign1=f"{GREEN} <<--- {RESET}")
if (user1[1] == 'c'):
    data_dic['c'] = f"{RED}{user1[0]}{RESET}"
    board(sign1=f"{GREEN} <<--- {RESET}")
if (user1[1] == 'd'):
    data_dic['d'] = f"{RED}{user1[0]}{RESET}"
    board(sign2=f"{GREEN} <<--- {RESET}")
if (user1[1] == 'e'):
    data_dic['e'] = f"{RED}{user1[0]}{RESET}"
    board(sign2=f"{GREEN} <<--- {RESET}")
if (user1[1] == 'f'):
    data_dic['f'] = f"{RED}{user1[0]}{RESET}"
    board(sign2=f"{GREEN} <<--- {RESET}")
if (user1[1] == 'g'):
    data_dic['g'] = f"{RED}{user1[0]}{RESET}"
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                board(sign3=f"{GREEN} <<--- {RESET}")
            if (user1[1] == 'h'):
                data_dic['h'] = f"{RED}{user1[0]}{RESET}"
                board(sign3=f"{GREEN} <<--- {RESET}")
            if (user1[1] == 'i'):
                data_dic['i'] = f"{RED}{user1[0]}{RESET}"
                board(sign3=f"{GREEN} <<--- {RESET}")
        Choice_dict['Player 1'] = user1[0]
        winner = check(data_dic['a'],data_dic['b'],data_dic['c'],data_dic['d'],data_dic['e'],data_dic['f']
                ,data_dic['g'],data_dic['h'],data_dic['i'])
        if (winner != " "):
            continuous_check = (True,winner)
            break
else:
    if choices == 2:
        print("Computer's Turn...")
        column = ''
        for j in range(1):
            column = random.choice(['a','b','c','d','e','f','g','h','i'])
            info = computerOverwrite(column)
            while (info != False):
                column = random.choice(['a','b','c','d','e','f','g','h','i'])
                info = computerOverwrite(column)
        if (column == 'a'):
            data_dic['a'] = f"{CYAN}{var}{RESET}"
            board(sign1=f"{YELLOW} <<--- {RESET}")
        if (column == 'b'):
            data_dic['b'] = f"{CYAN}{var}{RESET}"
            board(sign1=f"{YELLOW} <<--- {RESET}")
        if (column == 'c'):
            data_dic['c'] = f"{CYAN}{var}{RESET}"
            board(sign1=f"{YELLOW} <<--- {RESET}")
        if (column == 'd'):
            data_dic['d'] = f"{CYAN}{var}{RESET}"
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            board(sign2=f"{YELLOW} <<--- {RESET}")
        if (column == 'e'):
            data_dic['e'] = f"{CYAN}{var}{RESET}"
            board(sign2=f"{YELLOW} <<--- {RESET}")
        if (column == 'f'):
            data_dic['f'] = f"{CYAN}{var}{RESET}"
            board(sign2=f"{YELLOW} <<--- {RESET}")
        if (column == 'g'):
            data_dic['g'] = f"{CYAN}{var}{RESET}"
            board(sign3=f"{YELLOW} <<--- {RESET}")
        if (column == 'h'):
            data_dic['h'] = f"{CYAN}{var}{RESET}"
            board(sign3=f"{YELLOW} <<--- {RESET}")
        if (column == 'i'):
            data_dic['i'] = f"{CYAN}{var}{RESET}"
            board(sign3=f"{YELLOW} <<--- {RESET}")
        winner = check(data_dic['a'],data_dic['b'],data_dic['c'],data_dic['d'],data_dic['e'],data_dic['f']
            ,data_dic['g'],data_dic['h'],data_dic['i'])
        Choice_dict['Computer'] = var
        if (winner != " "):
            continuous_check = (True,winner)
            break
    else:
        user2 = eval(input("Player 2, Enter the Cloumn: "))
        if (user2[0] == 'exit'):
            print(f"{BLUE}Thanks For Playing{RESET}")
            f = 'b'
            break
        if (Choice_dict['Player 2'] == " "):
            pass
        else:
            if (Choice_dict['Player 2'] == user2[0]):
                pass
            else:
```

```python
            print(f"{RED}Sorry You can't take {user2[0]}, You have to choose {Choice_dict['Player 2']}{RESET}")
            user2 = eval(input("Player 2, Enter the Cloumn: "))
            if (user2[0] == 'exit'):
                print(f"{BLUE}Thanks For Playing{RESET}")
                f = 'b'
                break
            while (user2[0] != Choice_dict['Player 2']):
                print(f"{RED}Sorry You can't take {user2[0]}, You have to choose {Choice_dict['Player 2']}{RESET}")
                user2 = eval(input("Player 2, Enter the Cloumn: "))
                if (user2[0] == 'exit'):
                    print(f"{BLUE}Thanks For Playing{RESET}")
                    f = 'b'
                    break
            if (user2[0] == 'exit'):
                f = 'b'
                break
            else:
                pass
    info = overwrite(user2)
    if (info == True):
        user2 = eval(input("Player 2, Enter the Cloumn: "))
        if (user2[0] == 'exit'):
            print(f"{BLUE}Thanks For Playing{RESET}")
            f = 'b'
            break
        while (user2[0] != Choice_dict['Player 2']):
            print(f"{RED}Sorry You can't take {user2[0]}, You have to choose {Choice_dict['Player 2']}{RESET}")
            user2 = eval(input("Player 2, Enter the Cloumn: "))
            if (user2[0] == 'exit'):
                print(f"{BLUE}Thanks For Playing{RESET}")
                f = 'b'
                break
        if (user2[0] == 'exit'):
            f = 'b'
```

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                    break
            info2 = overwrite(user2)
            while (info2 != False):
                user2 = eval(input("Player 2, Enter the Cloumn: "))
                if (user2[0] == 'exit'):
                    print(f"{BLUE}Thanks For Playing{RESET}")
                    f = 'b'
                    break
                info2 = overwrite(user2)
                if (Choice_dict['Player 2'] == user2[0]):
                    pass
                else:
                    print(f"{RED}Sorry You can't take {user2[0]}, You have to choose {Choice_dict['Player 2']}{RESET}")
                    user2 = eval(input("Player 2, Enter the Cloumn: "))
                    if (user2[0] == 'exit'):
                        print(f"{BLUE}Thanks For Playing{RESET}")
                        f = 'b'
                        break
                    while (user2[0] != Choice_dict['Player 2']):
                        print(f"{RED}Sorry You can't take {user2[0]}, You have to choose {Choice_dict['Player 2']}{RESET}")
                        user2 = eval(input("Player 2, Enter the Cloumn: "))
                        if (user2[0] == 'exit'):
                            print(f"{BLUE}Thanks For Playing{RESET}")
                            f = 'b'
                            break
                    info2 = overwrite(user2)


        if (user2[0] == 'exit'):
            f = 'b'
            break
        else:
            pass
    else:
        pass
```

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if (user2[1] == 'a'):
    data_dic['a'] = f"{CYAN}{user2[0]}{RESET}"
    board(sign1=f"{YELLOW} <<--- {RESET}")
if (user2[1] == 'b'):
    data_dic['b'] = f"{CYAN}{user2[0]}{RESET}"
    board(sign1=f"{YELLOW} <<--- {RESET}")
if (user2[1] == 'c'):
    data_dic['c'] = f"{CYAN}{user2[0]}{RESET}"
    board(sign1=f"{YELLOW} <<--- {RESET}")
if (user2[1] == 'd'):
    data_dic['d'] = f"{CYAN}{user2[0]}{RESET}"
    board(sign2=f"{YELLOW} <<--- {RESET}")
if (user2[1] == 'e'):
    data_dic['e'] = f"{CYAN}{user2[0]}{RESET}"
    board(sign2=f"{YELLOW} <<--- {RESET}")
if (user2[1] == 'f'):
    data_dic['f'] = f"{CYAN}{user2[0]}{RESET}"
    board(sign2=f"{YELLOW} <<--- {RESET}")
if (user2[1] == 'g'):
    data_dic['g'] = f"{CYAN}{user2[0]}{RESET}"
    board(sign3=f"{YELLOW} <<--- {RESET}")
if (user2[1] == 'h'):
    data_dic['h'] = f"{CYAN}{user2[0]}{RESET}"
    board(sign3=f"{YELLOW} <<--- {RESET}")
if (user2[1] == 'i'):
    data_dic['i'] = f"{CYAN}{user2[0]}{RESET}"
    board(sign3=f"{YELLOW} <<--- {RESET}")


Choice_dict['Player 2'] = user2[0]
winner = check(data_dic['a'],data_dic['b'],data_dic['c'],data_dic['d'],data_dic['e'],data_dic['f']
    ,data_dic['g'],data_dic['h'],data_dic['i'])
if (winner != " "):
    continuous_check = (True,winner)
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            break


        counter += 1


if f == 'a' or f == 'b':
    pass
else:
    if (continuous_check[0] == True):
        key_list = list(Choice_dict.keys())
        value_list = list(Choice_dict.values())
        if (choices == 2):
            position1 = value_list.index('X')
            position2 = value_list.index(var)
        else:
            position1 = value_list.index('X')
            position2 = value_list.index('O')
        if (continuous_check[1] == f'{RED}X{RESET}'):
            if choices == 2:
                if (key_list[position1] == "Player 1"):
                    print(f"{MAGENTA}Congratulations! Winner of the Game is{BOLD} {name1}")
                else:
                    print(f"{MAGENTA}Congratulations! Winner of the Game is{BOLD} Computer.")
            else:
                if (key_list[position1] == "Player 1"):
                    print(f"{MAGENTA}Congratulations! Winner of the Game is{BOLD} {name1}")
                else:
                    print(f"{MAGENTA}Congratulations! Winner of the Game is{BOLD} {name2}")
        else:
            if choices == 2:
                if (key_list[position2] == "Player 1"):
                    print(f"{MAGENTA}Congratulations! Winner of the Game is{BOLD} {name1}")
                else:
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```python
                    print(f"{MAGENTA}Congratulations! Winner of the Game is{BOLD} Computer.")
                else:
                    if (key_list[position2] == "Player 1"):
                        print(f"{MAGENTA}Congratulations! Winner of the Game is{BOLD} {name1}")
                    else:
                        print(f"{MAGENTA}Congratulations! Winner of the Game is{BOLD} {name2}")

        else:
            pass
if __name__ == '__main__':
    game()


"""
```

My Approach is that I will create a dictionary and each time a column is filed I will pass the column name and the value given to that column
in the dictionary and while giving input I will check if that column is already filled and also the checking will be done using the dictionary.
Also the Colors of each Variable and the Arrows pointing to the current input column is given, the Warning situation such as If entered a column
already filled then it will give warning and choice to re-enter and if Choosed a variable which is not the same as choosed in the beginning
it will give a Warning and choice to re-enter, and all the Warnings and choice to re-enter are given untill the Choice is True with the given Conditions,
as mentioned before.The Player who takes the winning variable, his name gets displayed at the end while declearing the winner, and this is acheived
by storing the variable choosed by each user at the beginning and then calling the key of the dictionary from the value.

""" ""