ADITYA INSTITUTE OF TECHNOLOGY AND MANAGEMENT

(An Autonomous Institution)

TEKKALI

Department Of Information Technology

MINI PROJECT

SUBJECT: PYTHON PROGRAMMING

II B.Tech-I Sem

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CERTIFICATE

This is to certify that B. Vinay Manohar, B. Rajani, B. Eswar B. Sanjay , B. Samba Siva Rao are students studying Information Technology have done mini-projects during the year of 2022-2023 in the subject python programming .

Head of the Department

Lecture in charge

1.Snake and Lader Game

Conditions:

- Game will start when any one got 6
- Give another chance after getting 6
- Come back to original position when getting 3 simultaneous 6's
- Give 1 more chance when climb the ladder
- When snake bites come down

Code:

```
import random
snake={25:5,42:13,60:33,64:21,82:41,96:2}
ladder={5:20,18:44,21:31,40:80,56:99,79:93}
pos1=0
pos2=0
def start(pos):
    dice=random.randint(1,6)
    print("Dice::"+str(dice))
    if (pos==0):
        pos=dice
    else:
        pos=pos+dice
        print("Position::"+str(pos))
    if(dice==6):
        if(pos>100):
            pos=pos-dice
            print("Position::"+str(pos))
```

```
    else:
        print("WoW you got another chance to roll the dice")
        dice1=random.randint(1,6)
        pos=pos+dice1+dice
        print("Dice::"+str(dice1))
        print("Position::"+str(pos))
    if(dice1==6):
        if(pos>100):
            pos=pos-(dice+dice1)
            print("Position::"+str(pos))
        else:
            print("WoW you got another chance to roll the dice")
            dice2=random.randint(1,6)
            pos=pos+dice2+dice1+dice
        print("Dice::"+str(dice2))
        print("Position::"+str(pos))
        if(dice2==6):
            print("Invalid")
            pos=pos-18
            print("Position::"+str(pos))
elif pos in snake:
    print("Oh!!_No...")
    pos=snake[pos]
    print("Got hit by the $nake")
    print("Position::"+str(pos))
elif pos in ladder:
```

```
        print("Lucky you got a ladder")
        pos=ladder[pos]
        print("Great You are at"+str(pos))
        print("Hip Hip Hurray.. you got another chance to roll the dice")
        dice1=random.randint(1,6)
        print("Dice::"+str(dice1))
        pos=pos+dice1
        print("Position::"+str(pos))
        if(pos>100):
            pos=pos-dice
        print("Position::"+str(pos))
    else:
        if(pos>100):
            pos=pos-dice
    return pos
def unlock():
    dice=random.randint(1,6)
    print(dice)
    if(dice==6):
        print("you are unlocked")
        return True
    else:
        print("Sorry Try Again... to get unlock")
        return False
while pos1!=100 or pos2!=100:
    a=input("player 1 enter \"A\" to throw dice:")
```

```
if (pos1==0):
    pos1=unlock()
    print(pos1)
else:
    pos1=start(pos1)
    print(pos1)
if pos1>=100:
    print("GAME OVER!!!\n Player-1 *WON* the match")
    break
print(" ")
b=input("player 2 enter \"B\" to throw dice:")
if (pos2==0):
    pos2=unlock()
    print(pos2)
else:
    pos2=start(pos2)
    print(pos2)
if pos2>=100:
    print("GAME OVER!!!\n Player-2 *WON* the match")
    break
```

Sample output:

```
player 1 enter "A" to throw dice:A
6
you are unlocked
True
player 2 enter "B" to throw dice:B
```

1

Sorry Try Again... to get unlock

False

player 1 enter "A" to throw dice:A

Dice::5

Position::6

6

player 2 enter "B" to throw dice:B

5

Sorry Try Again... to get unlock

False

player 1 enter "A" to throw dice:A

Dice::1

Position::7

7

player 2 enter "B" to throw dice:B

2

Sorry Try Again... to get unlock

False

player 1 enter "A" to throw dice:A

Dice::1

Position::8

8

player 2 enter "B" to throw dice:B

2

Sorry Try Again... to get unlock

False

player 1 enter "A" to throw dice:A

Dice::1

Position::9

9

player 2 enter "B" to throw dice:B

3

Sorry Try Again... to get unlock

False

player 1 enter "A" to throw dice:A

Dice::4

Position::13

13

player 2 enter "B" to throw dice:B

6

you are unlocked

True

player 1 enter "A" to throw dice:A

Dice::5

Position::18

Lucky you got a ladder

Great You are at44

Hip Hip Hurray.. you got another chance to roll the dice

Dice::4

Position::48

Position::48

48

player 2 enter "B" to throw dice:B

Dice::5

Position::6

6

player 1 enter "A" to throw dice:A

Dice::4

Position::52

52

player 2 enter "B" to throw dice:B

Dice::1

Position::7

7

player 1 enter "A" to throw dice:A

Dice::5

Position::57

57

player 2 enter "B" to throw dice:B

Dice::5

Position::12

12

player 1 enter "A" to throw dice:A

Dice::1

Position::58

58

player 2 enter "B" to throw dice:B

Dice::1

Position::13

13

player 1 enter "A" to throw dice:A

Dice::4

Position::62

62

player 2 enter "B" to throw dice:B

Dice::5

Position::18

Lucky you got a ladder

Great You are at44

Hip Hip Hurray.. you got another chance to roll the dice

Dice::6

Position::50

Position::50

50

player 1 enter "A" to throw dice:A

Dice::6

Position::68

WoW you got another chance to roll the dice

Dice::6

Position::80

WoW you got another chance to roll the dice

Dice::4

Position::96

96

player 2 enter "B" to throw dice:B

Dice::6

Position::56

WoW you got another chance to roll the dice

Dice::3

Position::65

65

player 1 enter "A" to throw dice:A

Dice::3

Position::99

99

player 2 enter "B" to throw dice:B

Dice::1

Position::66

66

player 1 enter "A" to throw dice:A

Dice::2

Position::101

99

player 2 enter "B" to throw dice:B

Dice::5

Position::71

71

player 1 enter "A" to throw dice:A

Dice::1

Position::100

100

GAME OVER!!!

Player-1 *WON* the match

2.TIC TAC TOE GAME

Conditions:

- The box should contain 9 grids
- When any one get 3 of their marks in same row(up, down, across or diagonal) they will win
- If any one select the already selected value then give a message and one choice to change
- If no one get 3 same in a row and all the squares are fill then the game will be draw
- If the 9 squares are fill the game will be over!!

Code:

```
import os

board = [' ',' ',' ',' ',' ',' ',' ',' ',' ',' ']

player = 1

Win = 1

Draw = -1

Running = 0

Stop = 1

Game = Running

Mark = 'X'

def DrawBoard():

    print(" %c | %c | %c " % (board[1],board[2],board[3]))

    print("_|_|_")

    print(" %c | %c | %c " % (board[4],board[5],board[6]))

    print("_|_|_")

    print(" %c | %c | %c " % (board[7],board[8],board[9]))

    print("   |   |   ")
```

```
def CheckPosition(x):
    if(board[x] == ' '):
        return True
    else:
        return False
def CheckWin():
    #global Game

    if(board[1] == board[2] and board[2] == board[3] and board[1] != ' '):
        Game = Win
    elif(board[4] == board[5] and board[5] == board[6] and board[4] != ' '):
        Game = Win
    elif(board[7] == board[8] and board[8] == board[9] and board[7] != ' '):
        Game = Win
    elif(board[1] == board[4] and board[4] == board[7] and board[1] != ' '):
        Game = Win
    elif(board[2] == board[5] and board[5] == board[8] and board[2] != ' '):
        Game = Win
    elif(board[3] == board[6] and board[6] == board[9] and board[3] != ' '):
        Game=Win
    elif(board[1] == board[5] and board[5] == board[9] and board[5] != ' '):
        Game = Win
    elif(board[3] == board[5] and board[5] == board[7] and board[5] != ' '):
        Game=Win
    elif(board[1]!=' ' and board[2]!=' ' and board[3]!=' ' and board[4]!=' ' and
board[5]!=' ' and board[6]!=' ' and board[7]!=' ' and board[8]!=' ' and
board[9]!=' '):
```

```
        Game=Draw
    else:
        Game=Running
print("Tic-Tac-Toe Game")
print("Player 1 [X] \n")
print("Player 2 [O]")
print()
print()
print("Please Wait...")
while(Game == Running):
    DrawBoard()
    if(player % 2 != 0):
        print("Player 1's chance")
        Mark = 'X'
    else:
        print("Player 2's chance")
        Mark = 'O'
    choice = int(input("Enter the position between [1-9] where you want to mark
: "))
    if(CheckPosition(choice)):
        board[choice] = Mark
        player+=1
        CheckWin()
DrawBoard()
if(Game==Draw):
    print("Game Draw")
elif(Game==Win):
```

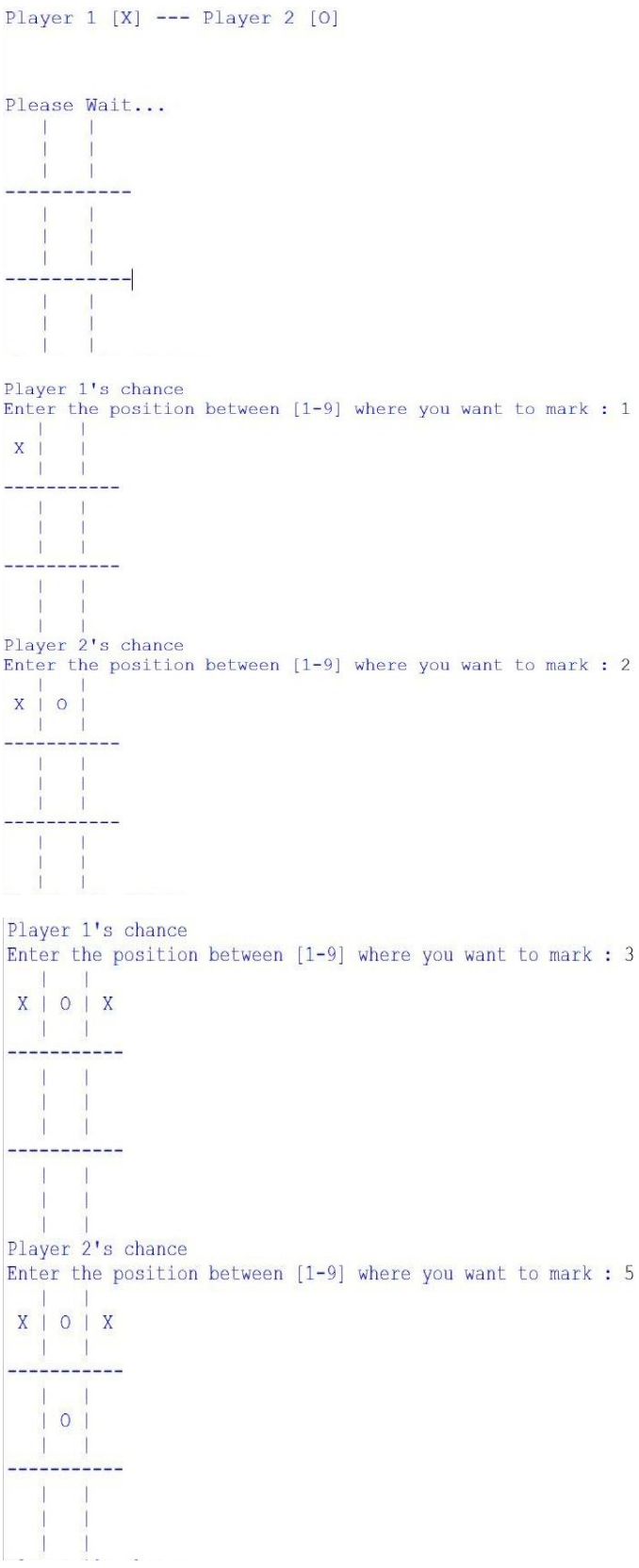
```
    player-=1
    if(player%2!=0):
        print("Player 1 Won  ")
    else:
        print("Player 2 Won ")
```

Sample output 1 :(for winning)

```
Player 1 [X] --- Player 2 [O]


Please Wait...
   |   |
   |   |
   |   |
-----------
   |   |
   |   |
   |   |
-----------
   |   |
   |   |
   |   |

Player 1's chance
Enter the position between [1-9] where you want to mark : 1
   |   |
 X |   |
   |   |
-----------
   |   |
   |   |
   |   |
-----------
   |   |
   |   |
   |   |
Player 2's chance
Enter the position between [1-9] where you want to mark : 2
   |   |
 X | O |
   |   |
-----------
   |   |
   |   |
   |   |
-----------
   |   |
   |   |
   |   |
```

```
Player 1's chance
Enter the position between [1-9] where you want to mark : 5
   |   |
 X | O |
   |   |
-----------
   |   |
   | X |
   |   |
-----------
   |   |
   |   |
   |   |
Player 2's chance
Enter the position between [1-9] where you want to mark : 3
   |   |
 X | O | O
   |   |
-----------
   |   |
   | X |
   |   |
-----------
   |   |
   |   |
   |   |

Player 1's chance
Enter the position between [1-9] where you want to mark : 9
   |   |
 X | O | O
   |   |
-----------
   |   |
   | X |
   |   |
-----------
   |   |
   |   | X
   |   |
Player 1 Won
```

Sample output 2 :(for draw)



```
Player 2's chance
Enter the position between [1-9] where you want to mark : 6
   |   |
 X | O | X
   |   |
-----------
   |   |
 X | O | O
   |   |
-----------
   |   |
 O | X |
   |   |
Player 1's chance
Enter the position between [1-9] where you want to mark : 9
   |   |
 X | O | X
   |   |
-----------
   |   |
 X | O | O
   |   |
-----------
   |   |
 O | X | X
   |   |
Game Draw
```

3.DATABASE for FOOD COURT

Aim: creating a database for food court with the table name menu having the attributes menu code, menu prize, available day, hostel type(girls / boys/ both) and meal type(breakfast/lunch/snacks/dinner).

Code:

```
import mysql.connector as mc

con=mc.connect(host="localhost",user="root",passwd="Pass@!23")

cur=con.cursor()

cur.execute("CREATE DATABASE FOOD_COURT")

cur.execute("USE FOOD_COURT")

cur.execute("CREATE TABLE MENU(MN_CODE VARCHAR(10) PRIMARY KEY,MN_NAME
CHAR(20),PRIZE INTEGER NOT NULL,AVAIL_DAY CHAR(4),HOS_TYPE CHAR(5),M_TYPE CHAR(10))")

cur.execute('INSERT INTO MENU VALUES("FD01","IDLI",50,"MON","BOTH","BREAKFAST")')

cur.execute('INSERT INTO MENU VALUES("FD02","PURI",30,"TUES","BOTH","BREAKFAST")')

cur.execute('INSERT INTO MENU  VALUES("FD03","VADA",40,"WED","BOTH","BREAKFAST")')

cur.execute('INSERT INTO MENU VALUES("FD04","UPMA",45,"THU","BOTH","BREAKFAST")')

cur.execute('INSERT INTO MENU VALUES("FD05","APPAM",50,"FRI","BOTH","BREAKFAST")')

cur.execute('INSERT INTO MENU VALUES("FD06","DOSA",30,"SAT","BOTH","BREAKFAST")')

cur.execute('INSERT INTO MENU VALUES("FD07","LEMON_RICE",60,"MON","BOTH","LUNCH")')

cur.execute('INSERT INTO MENU VALUES("FD08","BIRYANI",100,"TUES","BOTH","LUNCH")')

cur.execute('INSERT INTO MENU VALUES("FD09","FRIED_RICE",70,"WED","BOTH","LUNCH")')

cur.execute('INSERT INTO MENU VALUES("FD10","TOMATO_RICE",60,"THU","BOTH","LUNCH")')

cur.execute('INSERT INTO MENU VALUES("FD11","ZEERA_RICE",80,"FRI","BOTH","LUNCH")')

cur.execute('INSERT INTO MENU VALUES("FD12","FULL_MEALS",70,"SAT","BOTH","LUNCH")')

cur.execute('INSERT INTO MENU VALUES("FD13","NOODLES",60,"SUN","BOYS","SNACKS")')

cur.execute('INSERT INTO MENU VALUES("FD14","PANIPURI",20,"SUN","GIRLS","SNACKS")')

cur.execute('INSERT INTO MENU VALUES("FD15","CHAPATHI",25,"MON","BOTH","DINNER")')
```

```
cur.execute('INSERT INTO MENU VALUES("FD16","PULKA",30,"TUES","BOTH","DINNER")')
cur.execute('INSERT INTO MENU VALUES("FD17","ROTI",35,"WED","BOTH","DINNER")')
cur.execute('INSERT INTO MENU VALUES("FD18","PAROTA",40,"THU","BOTH","DINNER")')
cur.execute('INSERT INTO MENU VALUES("FD19","CURD_RICE",50,"FRI","BOTH","DINNER")')
cur.execute('INSERT INTO MENU VALUES("FD20","RICE",30,"SAT","BOTH","DINNER")')
res=cur.fetchall()
for x in res:
        print(res)
cur.close()
con.close()
```

Sample output :

```
['FD01','IDLI',50,'MON','BOTH','BREAKFAST']
['FD02','PURI',30,'TUES','BOTH','BREAKFAST']
['FD03','VADA',40,'WED','BOTH','BREAKFAST']
['FD04','UPMA',45,'THU','BOTH','BREAKFAST']
['FD05','APPAM',50,'FRI','BOTH','BREAKFAST']
['FD06','DOSA',30,'SAT','BOTH','BREAKFAST']
['FD07','LEMON_RICE',60,'MON','BOTH','LUNCH']
['FD08','BIRYANI',100,'TUES','BOTH','LUNCH']
['FD09','FRIED_RICE',70,'WED','BOTH','LUNCH']
['FD10','TOMATO_RICE',60,'THU','BOTH','LUNCH']
['FD11','ZEERA_RICE',80,'FRI','BOTH','LUNCH']
['FD12','FULL_MEALS',70,'SAT','BOTH','LUNCH']
['FD13','NOODLES',60,'SUN','BOYS','SNACKS']
['FD14','PANIPURI',20,'SUN','GIRLS','SNACKS']
['FD15','CHAPATHI',25,'MON','BOTH','DINNER']
['FD16','PULKA',30,'TUES','BOTH','DINNER']
['FD17','ROTI',35,'WED','BOTH','DINNER']
['FD18','PAROTA',40,'THU','BOTH','DINNER']
```

['FD19','CURD_RICE',50,'FRI','BOTH','DINNER']

['FD20','RICE',30,'SAT','BOTH','DINNER']