

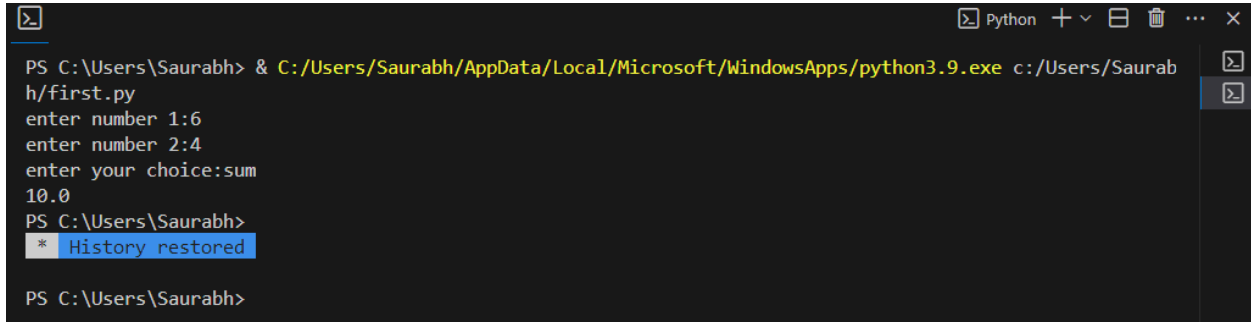
NAME : SAURABH

SEC : BA 2 (66)

ROLLNO : 2315002009

1 : BASIC CALCULATOR

```
no1=float(input("enter number 1:"))
no2=float(input("enter number 2:"))
choice=input("enter your choice:")
if(choice=="sum"):
    print(no1+no2)
elif(choice=="subtract"):
    print(no1-no2)
elif(choice=="quotient"):
    print(no1/no2)
elif(choice=="remainder"):
    print(no1%no2)
elif(choice=="multiply"):
    print(no1*no2)
else:
    print("invalid choice")
```



```
PS C:\Users\Saurabh> & C:/Users/Saurabh/AppData/Local/Microsoft/WindowsApps/python3.9.exe c:/Users/Saurabh/first.py
enter number 1:6
enter number 2:4
enter your choice:sum
10.0
PS C:\Users\Saurabh>
* History restored
PS C:\Users\Saurabh>
```

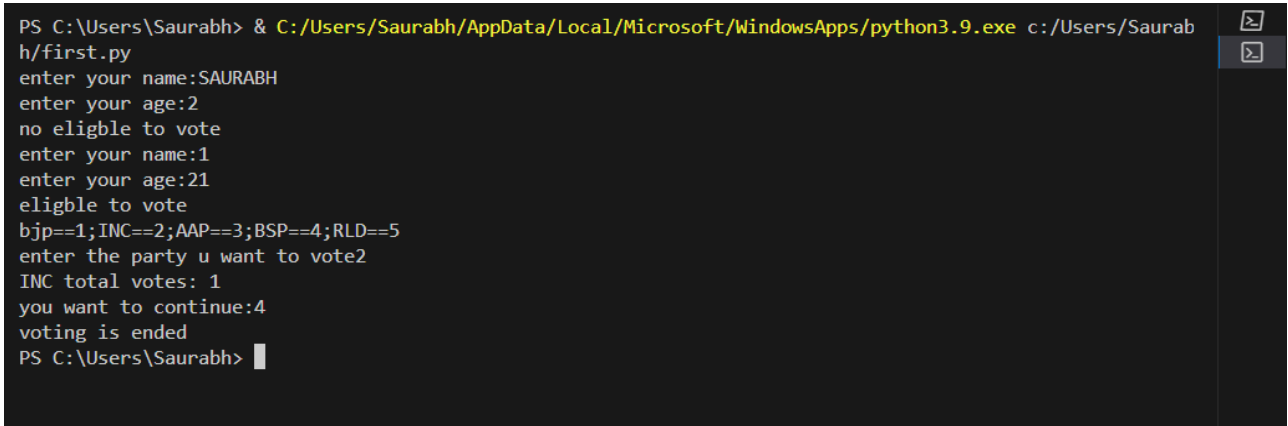
2 : VOTING SYSTEM

```
b=0;c=0;a=0;s=0;r=0
while True:
    name=input("enter your name:")
    n=int(input("enter your age:"))
    if(n>=18):
        print("eligible to vote")
        print("bjp==1;INC==2;AAP==3;BSP==4;RLD==5")
        p=int(input("enter the party u want to vote"))
        if(p==1):
            b+=1
            print("BJP total votes:",b)
        elif(p==2):
            c+=1
            print("INC total votes:",c)
        elif(p==3):
            a+=1
            print("AAP total votes:",a)
        elif(p==4):
            s+=1
            print("BSP total votes:",s)
```

```

elif(p==5):
    r+=1
    print("RLD total votes:",r)
else:
    print("invalid")
ch=int(input("you want to continue:"))
if(ch==10):
    continue;
else:
    break;
else:
    print("no eligible to vote")
print("voting is ended")

```



```

PS C:\Users\Saurabh> & C:/Users/Saurabh/AppData/Local/Microsoft/WindowsApps/python3.9.exe c:/Users/Saurabh/first.py
enter your name:SAURABH
enter your age:2
no eligible to vote
enter your name:1
enter your age:21
eligible to vote
bjp==1;INC==2;AAP==3;BSP==4;RLD==5
enter the party u want to vote2
INC total votes: 1
you want to continue:4
voting is ended
PS C:\Users\Saurabh>

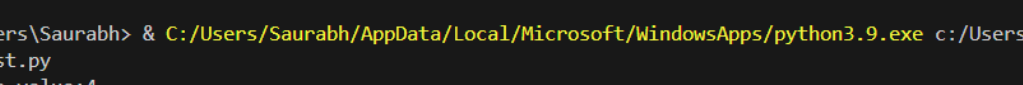
```

3 : ROLL THE DIECE

```

import random
user=0;comp=0
while True:
    c=random.randint(1,7)
    n=c
    comp+=1
    i=int(input("enter the value:"))
    if(1<=i<=6):
        user+=i
    else:
        print("value out of range")
    k=int(input("enter 9 to continue"))
    if(k==9):
        continue;
    else:
        break;
print("user total",user)
print("computer total",comp)
if(user>comp):
    print("win",user)
elif(comp>user):
    print("loss",comp)
else:
    print("its a tie")

```



```
PS C:\Users\Saurabh> & C:/Users/Saurabh/AppData/Local/Microsoft/WindowsApps/python3.9.exe c:/Users/Saurabh/first.py
enter the value:4
enter 9 to continue6
user total 4
computer total 1
win 4
PS C:\Users\Saurabh>
```

4 : GRADING SYSTEM

```
f=open('record file','w')
while True:
    name=input("enter the student name:")
    marks=int(input("enter student total marks:"))
    k=100
    p=(marks/k)*100
    if(95<=p<=100):
        print("student got A+ grade",p)
    elif(90<=p<95):
        print("student got A grade",p)
    elif(80<=p<90):
        print("student got B grade",p)
    elif(70<=p<80):
        print("student got C grade",p)
    elif(60<=p<70):
        print("student got D grade",p)
    elif(0<=p<60):
        print("student got F grade",p)
    else:
        print("H")
    f.write("name:-(name)percentage:-(p)")
    choice=int(input("1 to continue "))
    if(choice==1):
        continue;
    else:
        break;
```

```
Python + - [ ] [X] ... [X]
PS C:\Users\Saurabh> & C:/Users/Saurabh/AppData/Local/Microsoft/WindowsApps/python3.9.exe c:/Users/Saurabh/first.py
enter the student name:SAURABH
enter student total marks:96
student got A+ grade 96.0
1 to continue 2
PS C:\Users\Saurabh> |
```

5 : NUMBER GUESSING

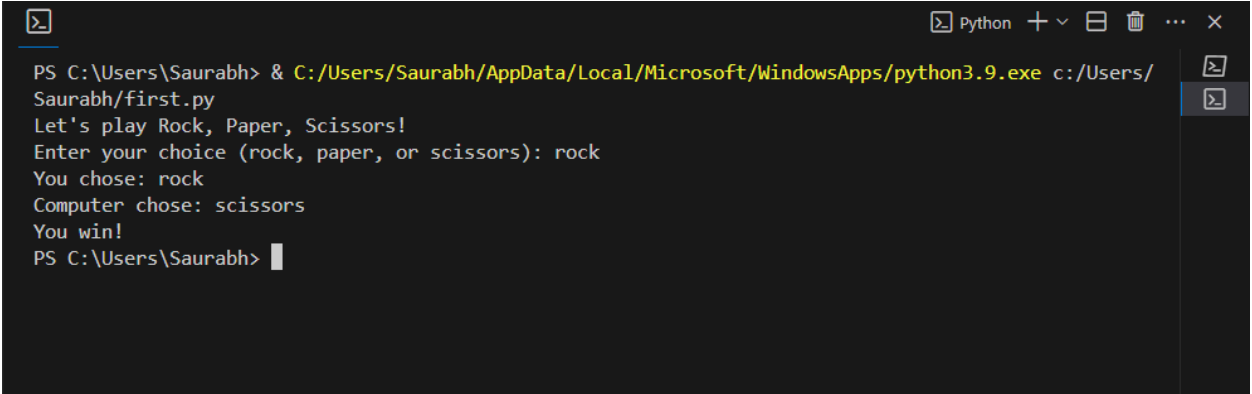
```
import random
x=int(input("range till u want"))
while True:
    c=random.randint(1,x)
    n=c
    user=int(input("entr the number user want"))
    if(user==n):
        print("right guess")
        break;
    else:
        print("better luck next time")
    choice=int(input("1 to continue"))
    if(choice==1):
        continue;
    else:
        break;
```

```
Python + - [ ] [X] ... [X]
PS C:\Users\Saurabh> & C:/Users/Saurabh/AppData/Local/Microsoft/WindowsApps/python3.9.exe c:/Users/Saurabh/first.py
range till u want6
entr the number user want6
better luck next time
1 to continue |
```

6: STONE PAPER SCISSOR GAME

```
import random

def play_game():
    print("Let's play Rock, Paper, Scissors!")
    choices = ["rock", "paper", "scissors"]
    user_choice = input("Enter your choice (rock, paper, or scissors): ").lower()
    if user_choice not in choices:
        print("Invalid choice. Please enter rock, paper, or scissors.")
        play_game()
    computer_choice = random.choice(choices)
    print("You chose:", user_choice)
    print("Computer chose:", computer_choice)
    if user_choice == computer_choice:
        print("It's a tie!")
    elif (
        (user_choice == "rock" and computer_choice == "scissors") or
        (user_choice == "paper" and computer_choice == "rock") or
        (user_choice == "scissors" and computer_choice == "paper")
    ):
        print("You win!")
    else:
        print("Computer wins!")
    play_game()
```

A screenshot of a Windows command prompt window. The title bar shows 'Python' and standard window controls. The command prompt shows the execution of a Python script. The user has entered 'rock' as their choice, and the computer has chosen 'scissors'. The output indicates 'You win!'. The prompt is currently at 'PS C:\Users\Saurabh>'.

```
PS C:\Users\Saurabh> & C:/Users/Saurabh/AppData/Local/Microsoft/WindowsApps/python3.9.exe c:/Users/Saurabh/first.py
Let's play Rock, Paper, Scissors!
Enter your choice (rock, paper, or scissors): rock
You chose: rock
Computer chose: scissors
You win!
PS C:\Users\Saurabh>
```

7: NUMBER SYSTEM

```
n=int(input("enter value till u want to print"))

print("1 for forward and 0 for reverse")

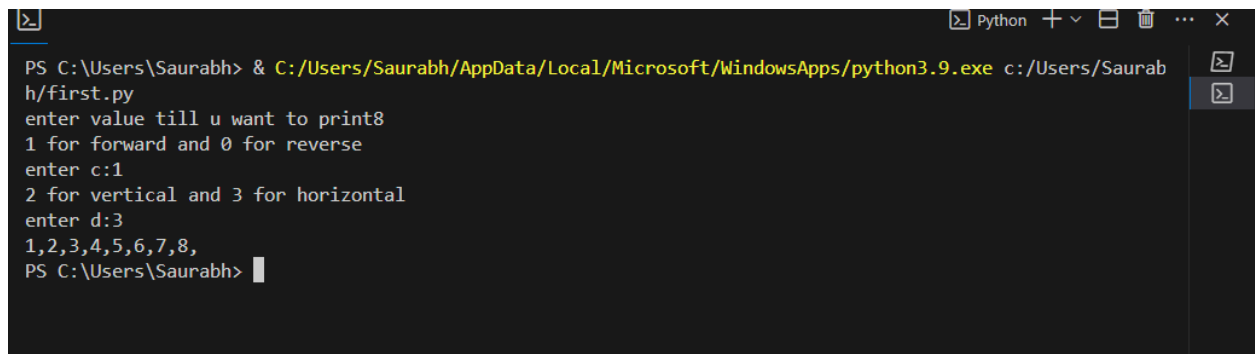
c=int(input("enter c:"))

if(c==1):
```

```

print("2 for vertical and 3 for horizontal")
d=int(input("enter d:"))
if(d==2):
    for i in range(1,n+1,1):
        print(i)
elif(d==3):
    for i in range(1,n+1,1):
        print(i,end=',')
else:
    print("invalid choice")
elif(c==0):
    print("2 for vertical and 3 for horizontal")
    d=int(input("enter d:"))
    if(d==2):
        for i in range(n,0,-1):
            print(i)
    elif(d==3):
        for i in range(n,0,-1):
            print(i,end=',')
    else:
        print("invalid choice")
else:
    print("invalid choice")

```



```

PS C:\Users\Saurabh> & C:/Users/Saurabh/AppData/Local/Microsoft/WindowsApps/python3.9.exe c:/Users/Saurabh/first.py
enter value till u want to print8
1 for forward and 0 for reverse
enter c:1
2 for vertical and 3 for horizontal
enter d:3
1,2,3,4,5,6,7,8,
PS C:\Users\Saurabh>

```

8 : INVENTORY SYSTEM

```
l={"apple":80,"banana":60}

totalamount=0

print(l)

name=input("enter customer name:")

cardamount=int(input("enter card balance:"))

while True:

    cart=input("items purchased:")

    quantity=int(input("enter the quantity:"))

    s=l[cart]

    a=quantity*s

    print(a)

    choice=int(input("1 to continue:"))

    totalamount+=a

    if(choice==1):

        continue;

    else:

        break;

#totalamount+=a

if(cardamount<totalamount):

    print("insufficient balance")

    r=int(input("0 to recharge"))

    if(r==0):

        k=int(input("enter recharge amount"))

        cardamount+=k

        amountleft=cardamount-totalamount

        print("card balance",amountleft)

    else:

        print("no rechgarage")

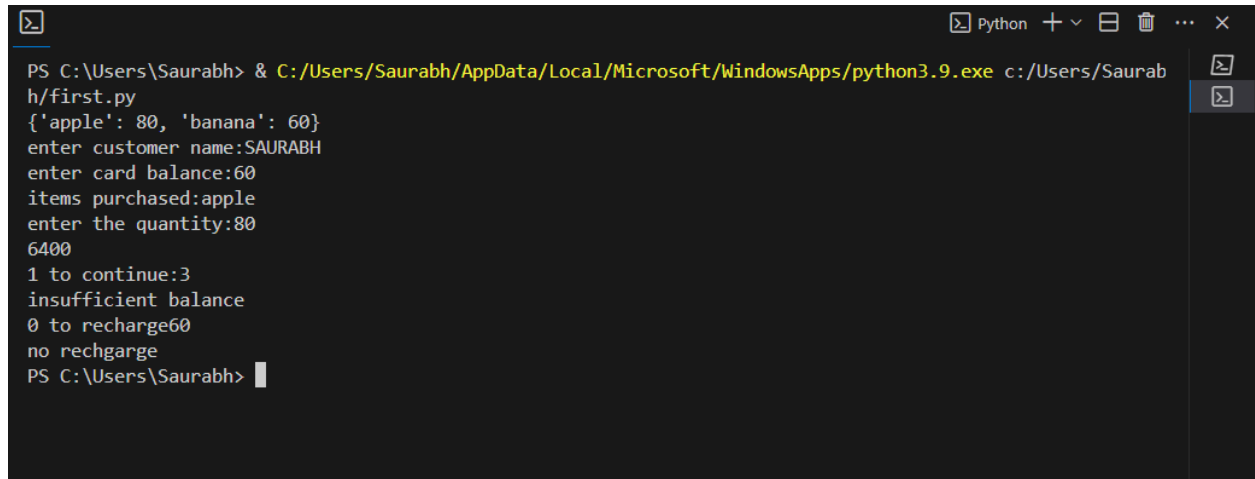
elif(cardamount>totalamount):

    amountleft=cardamount-totalamount
```

```
print("card balance",amountleft)
```

```
else:
```

```
print()
```



The screenshot shows a Windows command prompt window with a dark background. The title bar at the top indicates it is a 'Python' window. The command prompt shows the execution of a Python script named 'first.py' located at 'c:/Users/Saurabh/AppData/Local/Microsoft/WindowsApps/python3.9.exe'. The script's output is as follows: a dictionary {'apple': 80, 'banana': 60}, a prompt for customer name (SAURABH), a prompt for card balance (60), a prompt for items purchased (apple), a prompt for quantity (80), a calculated amount (6400), a choice to continue (3), a message 'insufficient balance', a choice to recharge (60), and a message 'no recharge'. The prompt then returns to the user's shell.

```
PS C:\Users\Saurabh> & C:/Users/Saurabh/AppData/Local/Microsoft/WindowsApps/python3.9.exe c:/Users/Saurabh/first.py
{'apple': 80, 'banana': 60}
enter customer name:SAURABH
enter card balance:60
items purchased:apple
enter the quantity:80
6400
1 to continue:3
insufficient balance
0 to recharge60
no recharge
PS C:\Users\Saurabh>
```