A1.

print("Enter Percentage Obtained by You: ")

percentage = int(input())

if percentage>=90 and percentage<=100:

print("Your Grade is A")

elif percentage>=80 and percentage<90:

print("Your Grade is B")

elif percentage>=60 and percentage<80:

print("Your Grade is C")

elif percentage<60 :

print("Your Grade is D")

else:

print("Not Correctly Entered!")

A2.

##Program to accept cost price of a bike and display road tax to be paid

print("Enter your Bike Price : ")

bike\_Price = float(input())

if bike\_Price>=100000:

t=0.15

elif bike\_Price>=50000 and bike\_Price<100000:

t=0.10

elif bike\_Price<50000:

t=0.05

road\_Tax=bike\_Price \* t

print(road\_Tax, "is your road Tax to be paid")

A3.

##Program to accept one city and display its monument

print("Enter one city[Delhi, Agra Jaipur] : ")

city\_name = input()

if city\_name.upper()=="DELHI":

monument\_name="Red Forte"

elif city\_name.upper()=="AGRA":

monument\_name="Taj Mahal"

elif city\_name.upper()=="JAIPUR":

monument\_name="Jal Mahal"

print(monument\_name, "is your Monumnet name of the city")

A4.

##Check how many times a number is divisible by 3

num = int(input("Enter the number to check how many times its divided by 3 : "))

count =0

while (num>=1):

while(num > 0):

print(num)

num =num -3

count=count+1

print(f"The given number is divisible by three {count} times")

A5. While loop in python allows to run a block of code until a particular condition is met.

If the condition is true the code inside while loop is executed else it comes out of the loop

Eg: we want to wait till count down ends to 0 and ten display some message we will use while loop

Also example when we want to check if a vending machine has items in stock it will display their names or if not then will display a message stating no items remains

A6,

3while loops patters

1

##Program to print right angle triangle star

i=1

while i<=5:

j=1

while j<=i:

print("\*",end=" ")

j=j+1

print("")

i=i+1

2 ##Program to print right triangle upside down

i=5

while i>=1:

j=i

while j>=1:

print("\*",end=" ")

j=j-1

print("")

i=i-1

3

##Program to print star pyramid with rows count input taken from user

numRows = int(input("Enter the number of rows: "))

row = 0

while(row < numRows):

row += 1

spaces = numRows - row

spaces\_counter = 0

while(spaces\_counter < spaces):

print(" ", end='')

spaces\_counter += 1

num\_stars = 2\*row-1

while(num\_stars > 0):

print("\*", end='')

num\_stars -= 1

print()

A7

Reverse While loop to display 10 to 1

count=10

while (count>=1):

print (count)

count=count-1