Q1. Write a program to accept percentage from the user and display the grade according to the following criteria

marks = int(input("enter number"))

if marks >=90 :

print("Grade A")

elif marks > 80 and marks <=90:

print("Grade B ")

elif marks >=60 and marks <=80:

print("Grade C")

else:

print("you will be the part of A3 batch")

Q2. write a program to accept tha cost price of a bike and display the road tax to be paid according to the following criteria

tax=0

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

if price>100000:

tax =15/100\*price

elif price>50000 and price<=100000:

tax=10/100\*price

else:

tax=5/100\*price

print("tax paid " ,tax)

Q3. Accept one city from the user and display monuments of that city

city=input("Enter city :")

if city=="delhi":

print("Mounment : Red Fort")

elif city=="agra":

print("Mounment : Taj Mahal")

elif city=="jaipur":

print("Mounment : Jal Mahal")

else:

print("enter city not covered”)

Q4. Check how many times a given number can be divided by 3 before it is less than or equal to 10.

n=int(input("enter number"))

if n%3!=0:

print("number is not divide by 3")

if n%3==0 and n>10:

count=0

while(n>10):

n=n/3

count=count+1

print("number can be divided ",count)

if n%3==0 and n<10 and n>0:

print("number can be divide one time")

Q5. why and when to use while loop in python give a detailed description with example.

Python while loop is used to run a block code until a certain condition is met .A while loop evaluates the condition. If the condition evaluated to true the code inside the while loop is executed.While loop allow initialization of counter variable before starting the body of a loop.

Example

i=1

n=5

While i<=n:

print(i)

i=i+1

Q6. Use nested while loop to print 3 different pattern.

i=1

s=0

while i<5:

s=s\*10+i

print(s)

i=i+1

r=5

i=1

while i<=r:

j=1

while j<=i:

print((i\*2-1),end="")

j=j+1

i=i+1

print('')

j=7

i=1

while i<=j:

m=1

while m<=i:

print((i-1),end="")

m=m+1

i=i+1

print('')

Q7.Reverse a while loop to display number 10 to 1,

i=10

while i>0:

print(i)

i-=1