Assignment .2

Q.1 write a programme to accept percentage from the user and display the grade according to the following criteria:

Marks	Grade
>90	A
>80 and <=90	B
>=60 and <=80	C
Below 60	D

Ans. marks = int(input("enter the number"))
    if marks >= 90 :
        print("you will be a part of A batch")
    elif marks >=80 and marks <90 :
        print ("you will be a part of B batch")
     elif marks >=60 and marks <80 :
         print ("you will be a part of C batch")
      elif marks<60 :
        print("you will be a part of D batch")

Q.2 write a programme to accept the cost price of a bike and display the road tax to be paid according to the following criteria.

Ans. price = int(input("enter the price "))
    if price >= 100000 :
        print("you will gives 15% of tax")
    elif price >=50000 and price <100000 :
        print("you will gives 10% of tax")
    elif price <=50000 :
        print("you will gives 5% of tax ")

Q.3 accept any city from the user and display monuments of that city.

City	Monuments
Delhi	Red fort
Agra	Taj mahal
Jaipur	Jal mahal

Ans.

```python
city = input("Enter a city")
if city.upper() == "DELHI":
    print("Red Fort")
elif city.upper() == "AGRA":
    print("Taj Mahal")
elif city.upper() == "JAIPUR":
    print("Jal Mahal")
```

Q.4 check how many times a given numbers can be delivered by 3 before it is less than or equal to 10.

Ans.
```python
num1=int(input("Enter your number:"))
if(num1%3==0):
    print("{} is divisible by 3".format(num1))
else:
    print("{} is not divisible by 3".format(num1))
```

Q.5 why and when to use while loop in python give a detailed description with example.

Ans. Python while loop is used to run a block code until a certain condition is met. Here, A while loop evaluates the condition. If the condition evaluates to True , the code inside the while loop is executed.
Example.
```python
number = int(input("enter the number of element you are looking for "))
a , b  = 0 , 1
counter = 0
while counter < number :
    print(a)
    c = a+ b
    a = b
    b = c
    counter= counter+ 1
```

Q.6 use nested while loop to print 3 different patterns .
Ans.
```python
i = 1
while i <= 4 :
    j = 0
    while  j <= 3 :
        print(i*j, end=" ")
        j += 1
    print()
    i += 1
```

```
example(2).    i=1
               while i<=5:
                    j =1
               while j<=5:
                  print (i,"*",j,'=',i*j)
                    j+=1
                    i+=1
                 print(i)
```

```
example(3)
               number = 5
                sum = 0
                i = 0
            while (i< number):
                sum = sum+2
                i = i+1
             print(sum)
```

Q.7 reverse a while loop to display numbers from 10 to 1.

```
Ans.    i = 10
        while i > 0:
            print(i)
            i = i - 1
```

Q.8 reverse a while loop to display numbers from 10 to 1.

```
Ans.    i = 10
        while i > 0:
            print(i)
            i = i - 1
```