Assignment Questions & Answer

Assignment **2:**

1. Write a program 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:- mark=int(input("Enter Your Mark:-"))
if mark>90:
   print("Grade A")
elif mark >80 and mark<=90:
   print("Grade B")
elif mark>=60 and mark<=80:
   print("Grade c")
else :
   print("Grade D")

2. **Write** a program to accept the cost price of a bike **and** display the road tax to be paid according to **the**
following criteria:

Tax

15%

10%

5%

Cost Price(in Rs)

>100000
50000 and <= 100000

<= 50000
Ans:-Bike_Price=int(input("Enter Your Bike Price Rs:-"))
if Bike_Price>100000:
    print(f"Road tax to be paid:{Bike_Price*0.15}")
elif Bike_Price>50000 and Bike_Price<=100000:
    print(f"Road tax to be paid:{Bike_Price*0.10}")
else :
    print(f"Road tax to be paid:{Bike_Price*0.05}")

3. Accept any city from the user **and** display monuments of **that** city.

City

Delhi
Monument

Red Fort

Taj Mahal
Agra

Jaipur
Jal Mahal

Ans:city_name=input("Enter any city name among this [Delhi,Agra,Jaipur] ")
if city_name=="Delhi":
    print("Monuments of Delhi =Red Fort ")
elif city_name=="Agra":
    print("Monuments of Agra =Taj Mahal ")
elif city_name=="Jaipur":
    print("Monuments of Jaipur =Jal Mahal")
else:
    print("You enterd wrong city")

4. Check how many times a given number can be divided **by** 3 before it is less than or equal to 10.
Ans:- num=int(input("Enter any number:"))
count=0
while(num>10):
    num=num/3
    if num>10:
        count=count+1
print(count)

5. Why and When to Use while Loop **in Python give** a detailed description with example

Ans:= A while loop evaluates the condition

1. If the condition evaluates to true, the code inside the while loop is executed.

2. condition is evaluated again.

3. This process continues until the condition is False.

4. When condition evaluates to False, the loop stops.

Ex:-

#print numbers from 1 to 5

i=1

n=5

while i<= n:

   print(i)

   i=i+1

6. Use nested while loop to **print 3** different pattern.

Ans:-a)for i in range(1,5):

   for j in range(1,5):

     print("*",end=" ")

   print(" ")

b)for i in range(1,5):

   for j in range(1,5):

     if j<=i:

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

    print(" ")
```

c)n = 10

```
for i in range(n):

    print(" "*(n-i),end='')

    for j in range(i*2+1):

        print("*",end="")

    print()
```

7. Reverse a while loop to **display** numbers from 10 to 1.

```
Ans:-i=10

while i>=1:

    print(i)

    i=i-1
```

8. Reverse a while loop to display numbers from 10 to **1.**

```
Ans:-i=1

while i<=10:

    print(i)

    i=i+1
```