In [ ]:

```
# Q.1- write a program to accept percentage from the user and display the grade according
marks                Grade
>90                  A
>80 and <=90         B
>=60 and <=80        C
below 60             D
```

In [2]:

```python
marks = int(input("enter your marks"))
if marks >90:
    print("your Grade is A")
elif marks >80 and marks <=90:
    print("your Grade is B")
elif marks >=60 and marks <=80:
    print("your Grade is C")
else:
    print(" your Grade D")
```

```
enter your marks88
your Grade is B
```

In [ ]:

```
# Q.2- write a program to accept the cost price of a bike and display the road tax to be
Tax            Grade
15%            >100000
10%            >50000 and <=100000
5%             <=50000
```

In [4]:

```python
price =int(input("enter the price 0f bike"))
if price >100000:
    print("your road tax is 15%")
elif price >50000 and price <=100000:
    print("your road tax is 10%")
else:
    print("your road tax is 5%")
```

```
enter the price 0f bike90000
your road tax is 10%
```

In [ ]:

```
# Q.3- Accept any city from the user and display monuments of that city:
CITY              MONUMENT
Delhi             Red Fort
Agra              Taj Mahal
Jaipur            Jal Mahal
```

In [5]:

```python
city = input("enter your city")
if city== "Delhi":
    print("monument of your city is Red Fort")
if city== "Agra":
    print("monument of your city is Agra")
if city== "Jaipur":
    print("monument of your city is Jaipur")
```

```
enter your cityAgra
monument of your city is Agra
```

In [ ]:

```python
# Q.4- check how many times a given number can be divided by 3 before it is less than or
```

In [8]:

```python
num=int(input("enter the numbers"))
count = 0
while num >10:
    num=num/3
    count +=1
    print(count)
```

```
enter the numbers9
```

In [ ]:

```python
# Q.5- Why and When to use while loop in python give a detailed description with example:
```

In [10]:

```python
'''ANS=> paython while loop is used to run a block code until a certain condition is met.
        The syntax of while loop is:
        while condition:
        # body of while loop
        Here,
        A while loop evaluates the condition
        If the condition evaluates to True, the code inside the while loop is executed.
        condition is evaluates again:
        this process coontinues until the condition is False.
        when condition evaluates to False, the loop stops'''
```

Out[10]:

```
'ANS=> paython while loop is used to run a block code until a certain cond
ition is met.\n        The syntax of while loop is:\n        while conditi
on:\n        # body of while loop\n        Here,\n        A while loop eva
luates the condition\n        If the condition evaluates to True, the code
 inside the while loop is executed.\n        condition is evaluates agai
n:\n        this process coontinues until the condition is False.\n
when condition evaluates to False, the loop stops'
```

In [ ]:

```python
# Q.6- Use nested while loop to print 3 diffrent pattren:
```

In [22]:

```python
# Pattren 1:
i=1
while i<=5:
    j=1
    while j<=i:
        print("*", end="")
        j +=1
    print ("")
    i +=1

print("------")

#Pattren 2:
i=5
while i>=1:
    j=i
    while j>=1:
        print("*", end="")
        j -=1
    print ("")
    i -=1

print("------")
#Pattren 3:
i=5
while i>=1:
    j=1
    while j<=5:
        if j >=i:
            print("*", end="")
        else:
            print("", end="")
        j +=1
    print ("")
    i -=1
```

```
*
**
***
****
*****
------
*****
****
***
**
*
------
*
**
***
****
*****
```

In [ ]:

```python
# Q.7-Reverse a while loop in paython numbers from 10 to 1:
```

In [25]:

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

```
9
8
7
6
5
4
3
2
1
0
```

In [ ]: