

[10]: *# 1 write a program yo accept the percentage from the user and displays the grade according to the following criteria*

marks > 90 = grade (A), >80 and <=90 = B , >=60 and <=80 = c, below 60 = d.

```
marks = int(input("enter the marks"))
```

```
if marks >= 0 and marks <=100:
```

```
    if marks > 90 :
```

```
        print("A")
```

```
    elif marks >80 and marks <=90:
```

```
        print("B")
```

```
    elif marks >=60 and marks <= 80 :
```

```
        print("C")
```

```
    else:
```

```
        print("D")
```

```
else :
```

```
    print (" wrong data entred ")
```

enter the marks 90

B

[11]: *# 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 % cost price >100000, tax 10% cost price > 50000 and <= 100000 and tax 5 % cost price <=50000

```
cost_price = int(input("enter the cost price of bike in Rs. "))
```

```
if cost_price > 100000:
```

```
    print(" the road tax to be paid is " , cost_price* 0.15)
```

```
elif cost_price > 50000 and cost_price<= 100000:
```

```
    print(" the road tax to be paid is " , cost_price* 0.10)
```

```
else:
```

```
    print(" the road tax to be paid is " , cost_price* 0.05)
```

enter the cost price of bike in Rs. 67

the road tax to be paid is 3.35



```
# 3 Accept any city from the user and display monuments of that city .
# delhi = red fort , agra = taj mahal , jaipur = jal mahal
city = input("enter the city")
if city == 'Delhi':
    print("Red Fort")
elif city == 'Agra':
    print("Taj Mahal")
elif city == 'Jaipur':
    print("Jal Mahal")
else :
    print (" you enter the wrong city ")
```

enter the city Delhi
Red Fort

```
# 4 check how many times a given number can be divided by 3 before it is less tha or equal to 10
a = int(input ("enter the number"))
if a > 10 :
    print(int(10/3))
else:
    print(int(a/3))
```

enter the number 89
3

```
[41]: n = 4
i = 1
while(i<=n):
    j = n
    while j > i :
        print (" *2, end=")
        j = j - 1
    print ("* " * i)
    i = i +1
```

```

    *
  * *
* * *
* * * *
```

```
[42]: # 7 8 revrse a while loop to  display number 10 to 1
i = 10
while ( i > 0):
    print(i)
    i = i - 1
```

```
10
9
8
7
6
5
4
3
2
1
```

23]: # 6 use a nested while loop to print 3 different pattern

```
n = 4
i = 1
while (i <= n):
    j = 1
    while ( j <= i):
        print ("*", end = " ")
        j = j + 1
    i = i +1
    print()
```

```
*
* *
* * *
* * * *
```

26]:

```
n = 4
i = 1
while(i<=n):
    j = 1
    while j <= n - i:
        print (" ", end="")
        j = j +1
    print ("*" * (2*i -1))
    i = i +1
```

```
*
***
*****
*****
```

Q 357 Why and when use while loop in python given a detailed description with example.

Ans We use while loop to run a block of code until a certain condition is true or false. when we need iteration of block of code we use while loop.

Ex

```
i = 1
```

```
while (i < 10):
```

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

```
    i = i + 1
```

output

1 2 3 4 5 6 7 8 9