

30th Jan Assignment

1st solution

In [1]:

```
marks=int(input("Enter Marks Obtained:"))
if marks>90:
    print("A")
elif marks>80 and marks <=90:
    print("B")
elif marks>=60 and marks<=80:
    print("C")
else:
    print("D")
```

Enter Marks Obtained:44
D

2nd solution

In [2]:

```
price=int(input("Enter price of bike:"))
if price>100000:
    print(f"Tax to be paid is {(price)*0.15}")
elif price>50000 and price<=100000:
    print(f"Tax to be paid is {(price)*0.10}")
else:
    print(f"Tax to be paid is {(price)*0.05}")
```

Enter price of bike:234355
Tax to be paid is 35153.25

3rd solution

In [3]:

```
city=str(input("Enter City Name:")).capitalize()
if city=="Delhi":
    print("{}'s monument is Red Fort".format(city))
elif city=="Agra":
    print("{}'s monument is Taj Mahal".format(city))
elif city=="Jaipur":
    print("{}'s monument is Jal Mahal".format(city))
else:
    print("City not found!")
```

Enter City Name:delHI
Delhi's monument is Red Fort

4th solution

In [4]:

```
n=int(input("Enter a number:"))
copy=n
c=0
while n!=0:
    if n%3==0:
        c=c+1
        n=n-1
print(f"No of times 3 divides {copy} to 0 in order is {c} ")
```

Enter a number:23433

No of times 3 divides 23433 to 0 in order is 7811

5th solution

while loop is used when we don't know how many times the loop has to be executed during the start of program. we will keep a statement along with while and prompts interpreter to run the code until the given statement fails.

In [5]:

```
# for example i will take a number and will write the code to find the nearest number before
number=123343
copy=number
while number%49!=0:
    number=number-1
print(f"the nearest before number where 49 is divisible by {copy} is {number}")
```

the nearest before number where 49 is divisible by 123343 is 123333

6(a) solution

In [6]:

```
p=7
i=1
j=1
while i!=p+1:
    while j!=i+1:
        print(" "*(p-i),end="")
        print(" "*(i-j))
        j=j+1
    i=i+1
```

```

      *
     * *
    * * *
   * * * *
  * * * * *
 * * * * *
* * * * *

```

6(b) solution

In [7]:

```
p=7
i=1
j=1
while i!=p+1:
    while j!=i+1:
        print("*" * i)
        j=j+1
    i=i+1
```

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

6(c) solution

In [8]:

```
p=7
i=1
j=1
while i!=p+1:
    while j!=i+1:
        print(" " * (p-i), end="")
        print("*" * i)
        j=j+1
    i=i+1
```

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

7 and 8 solution

In [9]:

```
n=10
while n!=0:
    print(n)
    n=n-1
```

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