

Conditional Statements

--> Decision making purpose

- if
 - if else
 - elif
 - nested if
-
- Syntax for if statement
-

if(condition): statements

In []:

```
1 # i/p: 4
2 # o/p: even
3
4 # i/p: 7
5 # o/p:
```

In [2]:

```
1 n = int(input())
2 if(n%2==0): # false
3     print("even")
```

7

In []:

```
1 # i/p: 8
2 # o/p: Positive
3
4 # i/p: -3
5 # o/p:
```

In [4]:

```
1 n1 = int(input())
2 if(n1>0):
3     print("Positive")
```

-3

- Syntax for if else statement
-

if(condition): statements else: statements

In [5]:

```
1 n = int(input())
2 if(n%2==0): # false
3     print("even")
4 else:
5     print("Odd")
```

...

In [6]:

```
1 n1 = int(input())
2 if(n1>0):
3     print("Positive")
4 else:
5     print("Negative")
```

...

In []:

```
1 # i/p: 72
2 # o/p: 72 is divisible by 8
3
4 # i/p: 81
5 # o/p: 81 is not divisible by 8
```

In [10]:

```
1 num = int(input())
2 if(num%8==0):
3     print(num,"is divisible by 8")
4 else:
5     print(num,"is not divisible by 8")
```

...

In [13]:

```
1 n1 = int(input())
2 if(n1%5==0 and n1%10==0):
3     print(n1,"is divisible by 5&10")
4 else:
5     print(n1,"is not divisible by 5&10")
```

...

In [14]:

```
1 # i/p: 12
2 # o/p: Not Eligible for vote
3 age = int(input())
4 if(age>=18):
5     print("Eligible for vote")
6 else:
7     print("Not Eligible for vote")
```

78
Eligible for vote

In [15]:

```
1 a,b=int(input()),int(input())
2 print("addition = ", a+b)
3 print("Substraction = ",a-b)
4 print("Multiplication = ", a*b)
5 print("Division = ",a/b)
6 print("Modulus = ",a%b)
7 print("power= ",a**b)
```

...

elif statement

if(condition1): statement elif(condition2): statement elif(condition3): statement . . . else: statement

In []:

```
1 # i/p: 0
2 # o/p: Sunday
```

In [16]:

```
1 week = int(input())
2 if(week==0):
3     print("Sunday")
4 elif(week==1):
5     print("Monday")
6 elif(week==2):
7     print("Tuesday")
8 elif(week==3):
9     print("Wednesday")
10 elif(week==4):
11     print("Thursday")
12 elif(week==5):
13     print("friday")
14 elif(week==6):
15     print("saturday")
16 else:
17     print("Invalid")
```

6
saturday

In []:

```
1 # i/p: may
2 # o/p: may month has 31 days
```

In []:

```
1 90-100 ---> Excellent
2 80-89 ---> A grade
3 70-79 ---> B grade
4 60-69 ---> C grade
5 50-59 ---> D grade
6 40-49 ---> E grade
7 (1-39) ---> Fail
```

In [20]:

```
1 marks = int(input())
2 if(marks>=90 and marks<=100):
3     print("Excellent")
4 elif(marks>=80 and marks<=89):
5     print("A Grade")
6 elif(marks>=70 and marks<=79):
7     print("B Grade")
8 elif(marks>=60 and marks<=69):
9     print("C Grade")
10 elif(marks>=50 and marks<=49):
11     print("D Grade")
12 elif(marks>=40 and marks<=39):
13     print("E Grade")
14 elif(marks>=1 and marks<=39):
15     print("Fail")
16 else:
17     print("Invalid")
```

31
Fail

Syntax for nested if statement

if(condition): statements if(condition): statement else: statement else: statement

In []:

1

In []:

1