<	Less than operator
	
	This operator returns True, if opr1 is less than opr2 else return False.
	
	>>> 10<2
	False
	>>> 2<10
	True
	>>> 'A'<'B'
	True
	>>> ord('A')
	65
	>>> ord('B')
	66
	>>> ord('Z')
	90
	>>> ord('a')
	97
	>>> ord('b')
	98
	>>> ord('z')
	122
	>>> ord('0')
	48
	>>> ord('9')
	57
	>>> chr(65)
	'A'
	>>> chr(66)
	'B'
	>>> chr(97)
	'a'
	>>> chr(122)
	'z'
	
	Ord() : This function returns ascii value of input character
	Chr() : This function returns character value of input ascii value

>=	This operator returns True, if opr1 is greater than or equal to

	opr2 else False.
	
	>>> 15>=10
	True
	>>> 15>=15
	True
	>>> 15>=14
	True
	>>> 15>=20
	False

<=	This operator returns True, if opr1 is less than or equal to opr2 else return False.
	
	>>> 10<=15
	True
	>>> 10<=10
	True
	>>> 10<10
	False
	>>> 10<=20
	True
	>>> 10<=5
	False

!=	This operator returns True if opr1 is not equal to opr2 else return False
	
	>>> 10!=5
	True
	>>> 10!=10
	False
	>>> 'A'!='B'
	True
	>>> 'A'!='A'
	False

==	This operator returns True, if opr1 is equal to opr2 else return False
	
	>>> "nit"=="nit"
	True
	>>> 100==100

	True
	>>> 100==200
	False
	>>> 100==100!=200
	True
	>>> 100==100!=100
	False
	>>> 100>50>=50
	True

Conditional Operators

Conditional operators are ternary operators, these operators required 3 operands.
Conditional operator is used for conditional expression.
Conditional operator evaluates the expression based on condition/Boolean expression.

Syntax:
<variable>=<expression1> if condition else <expression2>
<variable>=opr1 if opr2 else opr3

“opr1” is evaluated if opr2 is True
“opr3” is evaluated if opr2 is False

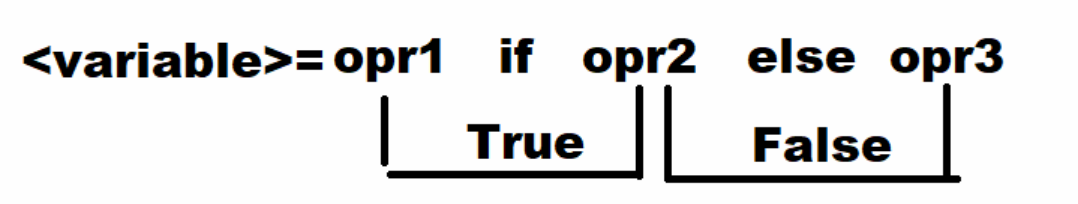
Example:

```
a=100 if True else 200
print(a)
b=100 if False else 200
print(b)
c="Hello" if 10>2 else "Bye"
print(c)
d="Hello" if 10<2 else "Bye"
print(d)
```

Output

```
100
200
Hello
```

Bye



Example:
Write a program to find input number is even or odd

```
num=int(input("Enter any integer number "))
r=num%2
result="Even" if r==0 else "Odd"
print("Result is ",result)
```

Output
Enter any integer number 4
Result is Even

Enter any integer number 9
Result is Odd

Example:
Write a program to find last digit of number is even or odd

```
num=int(input("Enter any integer value "))
last_digit=num%10
r=last_digit%2
result="Even" if r==0 else "Odd"
print("Last digits of ",num,"is",result)
```

Output
Enter any integer value 125
Last digits of 125 is Odd

Enter any integer value 124
Last digits of 124 is Even

Example:

```
# Write a program to find input amount is multiples of 500
print("Please Enter Amount in Multiples of 500")
amt=int(input("Enter Amount :"))
print("Allow to withdraw") if amt%500==0 else print("Not Allowed to
withdraw")
```

Output

```
Please Enter Amount in Multiples of 500
Enter Amount :1200
Not Allowed to withdraw

Please Enter Amount in Multiples of 500
Enter Amount :1500
Allow to withdraw
```

Example:

```
# Write a program to find a person is elg to vote or not

name=input("Enter Name ")
age=int(input("Enter Age "))

print(name,"your elg to vote") if age>=18 else print(name,"your not elg to
vote")
```

Output

```
Enter Name naresh
Enter Age 90
naresh your elg to vote

Enter Name suresh
Enter Age 12
suresh your not elg to vote
```

Logical Operators

Logical operators are used to combine two or more Boolean expressions. Logical operators are represented using 3 keywords

1. and
2. or
3. not

“and” operator

“and” is binary operator and required 2 operands
Truth table of “and” operator

Opr1	Opr2	Opr1 and Opr2
True	True	True
True	False	False
False	True	False
False	False	False

If any operand is False, the complete expression becomes False.

Example:

```
>>>10>5 and 10>9
True
>>>10>5 and 10>20
False
>>>10>20 and 10>5
False
>>> 10>20 and 10>30
False
>>> 100 and 200
200
>>> 100 and 200 and 0
0
>>> 100 and 200 and 300
300
>>> -100 and -200 and 400
400
>>> "A" and "B"
'B'
>>> "A" and "B" and "C"
'C'
```

Example:

```
# Login Application
import random
```

```
name=input("Enter Name ")
otp=random.randint(1000,9999)
print("This is your opt number to login ",otp)
user_otp=int(input("OTP Number "))

print("Welcome") if otp==user_otp else print("Invalid OTP Number")
```

Output

```
Enter Name suresh
This is your opt number to login  2154
OTP Number 2154
Welcome

Enter Name kishore
This is your opt number to login  7896
OTP Number 7898
Invalid OTP Number
```

Example:

```
# Login Application

user=input("UserName :") # nit
pwd=input("Password :") # nit123

print("Welcome") if user=="nit" and pwd=="nit123" else print("invalid
username or password")
```

Output

```
UserName :nit
Password :nit123
Welcome

UserName :nit
Password :nit321
invalid username or password
```

“or” operator

“or” keyword represent logical operator
“or” is binary operator and required 2 operands.

Truth table of “or” operator

Opr1	Opr2	Opr1 or opr2
True	True	True
False	True	True
True	False	True
False	False	False