if condition

In [1]:
```python
if True:
    print("Condition is True")
```

Condition is True

In [2]:
```python
if False:
    print("Condition is True")
```

In [3]:
```python
if 1:
    print("Condition is True")
```

Condition is True

In [4]:
```python
if 0:
    print("Condition is True")
```

In [5]:
```python
code = input("Enter code :")
if code=='007':
    print("Authorised Access")
```

Enter code :007
Authorised Access

In [6]:
```python
number = input("Enter the number :")
print(type(number))

# Converting data type to integer
number=int(number)
print(type(number))

if number > 10:
    print("The number is greater than 10")
```

Enter the number :132
<class 'str'>
<class 'int'>
The number is greater than 10

In [7]:
```python
number = eval(input("Enter the number :")) # eval function
if number>10:
    print("The number is greater than 10")
```

Enter the number :12
The number is greater than 10

In [8]:
```python
number = eval(input("Enter the number :"))
if number % 2==0:
    print("The number is divisible by 2")
```

Enter the number :11

In [9]:
```python
number = eval(input("Enter the number :"))
if number % 2==0:
    print("The number is divisible by 2")
```

Enter the number :14
The number is divisible by 2

In [10]:
```python
number = eval(input("Enter the number :"))
if number % 2==0:
    print("The number is divisible by 2")
else:
    print("The number is not divisible by 2")
```

Enter the number :6
The number is divisible by 2

2 conditions

In [11]:
```python
number = eval(input("Enter the number :"))
if number % 2==0:
    print("The number is divisible by 2")
else:
    print("The number is not divisible by 2")
```

Enter the number :7
The number is not divisible by 2

In [12]:
```python
number = eval(input("Enter the number :"))
if number % 2==0:
    print("The number is divisible by 2")
if number>=0:
    print("The number is positive number")
```

Enter the number :6
The number is divisible by 2
The number is positive number

In [13]:
```python
number = eval(input("Enter the number :"))
if number % 2==0:
    print("The number is divisible by 2")
elif number>=0:
    print("The number is positive number")
```

Enter the number :6
The number is divisible by 2

In [14]:
```python
number = eval(input("Enter the number :"))
if number % 2==0:
    print("The number is divisible by 2")
elif number %2 !=0:
    print("The number is not divisible by 2")
```

```
Enter the number :6
The number is divisible by 2
```

In [15]:
```python
number = eval(input("Enter the number :"))
if number % 2==0:
    print("The number is even")
elif number %2 !=0:
    print("The number is odd")
```

```
Enter the number :57
The number is odd
```

In [16]:
```python
number = eval(input("Enter the number :"))
if number % 2==0:
    print("The number is even")
elif number %2 !=0:
    print("The number is odd")

print("Finally I am able to find the number is even or odd")
```

```
Enter the number :34
The number is even
Finally I am able to find the number is even or odd
```

In [17]:
```python
AC = eval(input("Enter the value of hypotenuse :"))
AB = eval(input("Enter the value of side 1 :"))
BC = eval(input("Enter the value of side 2 :"))

if (AC**2) == (AB**2)+(BC**2):
    print("Pythagoras theorem is proved")
elif (AC**2) != (AB**2)+(BC**2):
    print("Pythagiras theorem is not proved")

print("Done")
```

```
Enter the value of hypotenuse :5
Enter the value of side 1 :4
Enter the value of side 2 :3
Pythagoras theorem is proved
Done
```

In [18]:
```python
AC = eval(input("Enter the value of hypotenuse :"))
AB = eval(input("Enter the value of side 1 :"))
BC = eval(input("Enter the value of side 2 :"))

if (AC**2) == (AB**2)+(BC**2):
    print("Pythagoras theorem is proved")
else:
    print("Pythagiras theorem is not proved")

print("Done")
```

```
Enter the value of hypotenuse :5
Enter the value of side 1 :2
Enter the value of side 2 :2
Pythagiras theorem is not proved
Done
```

multiple conditions

In [19]:
```python
number = 10
if number > 10:
    print("Then number is greater than 10")
if number < 10:
    print("The number is less than 10")
if number == 10:
    print("The number is equal to 10")
```

```
The number is equal to 10
```

In [20]:
```python
number = 10
if number > 10:
    print("Then number is greater than 10")
elif number < 10:
    print("The number is less than 10")
elif number == 10:
    print("The number is equal to 10")
```

```
The number is equal to 10
```

In [21]:
```python
number = 10
if number > 10:
    print("Then number is greater than 10")
elif number < 10:
    print("The number is less than 10")
else number == 10:
    print("The number is equal to 10")
```

```
  Cell In[21], line 6
    else number == 10:
              ^
SyntaxError: expected ':'
```

In [22]:
```python
number = 10
if number > 10:
    print("Then number is greater than 10")
elif number < 10:
    print("The number is less than 10")
else:
    print("The number is equal to 10")
```

The number is equal to 10

In [23]:
```python
marks = eval(input("Enter your percentage :"))

if marks >= 75:
    print("A grade")
elif marks >=60 and marks <=74:
    print("B grade")
elif marks>=45 and marks <=59:
    print("C grade")
elif marks >=35 and marks <=44:
    print("D grade")
else:
    print("Fail")
```

Enter your percentage :87
A grade

In [ ]: