Conditional Statements

Conditional statements in Python allow you to execute different blocks of code based on whether a condition is true or false. They're a fundamental way to control the flow of your program

- if
- if else
- if elif else
- nested if

In [29]:
```python
# if Statement
i = 10

if (i < 20):
    print(" 10 is less than 20")
    print("i'm in if block")
```
```
 10 is less than 20
i'm in if block
```

In [24]:
```python
i = 10

if (i > 20):
    print(" 10 is less than 20")
    print("i'm in if block")
print("i'm not in if block")
```
```
i'm not in if block
```

In [32]:
```python
# if else Statement

i = 20

if (i > 100):
    print("20 is greater than 100")
    print(" i'm in if block")
else:
    print("20 is less than 100")
    print("i'm in else block")
print("i'm not in if and else block")
```
```
20 is less than 100
i'm in else block
i'm not in if and else block
```

In [47]:
```python
# nested if else
i = 10
if (i == 10):
    print("i is equal to 10")
    if (i > 15):
```

```python
        print("i is greater than 15")
    if (i < 12):
        print("i is smaller than 12")
    else:
        print("i is less than 15")
```

```
i is equal to 10
i is smaller than 12
```

In [ ]:
```python
# elif condition
# if--> elif--> else
```

In [51]:
```python
i = 25

if (i == 10):
    print("i is 10")
elif (i ==15):
    print(" i is 15")
elif(i == 20):
    print("i is 20")
else:
    print("i is not present")
```

```
i is not present
```

In [52]:
```python
i = 25

if (i == 10):
    print("i is 10")
elif (i ==15):
    print(" i is 15")
elif(i == 20):
    print("i is 20")
elif(i == 25):
    print(" i is 25")
else:
    print("i is not present")
```

```
i is 25
```

Ternary statement | Short hand if else Statement

In [56]:
```python
# Short hand if statement
i = 30
if i < 100 : print(" i is less than 100")
```

```
i is less than 100
```

In [57]:
```python
i = 30
if i < 100 :
    print(" i is less than 100")
```

```
i is less than 100
```

In [59]:
```python
# Short hand if else Statement
i = 10

print(True) if i<50 else print(False)
```

True

In [ ]:

Conditional Statements if and else

if condition :

- Executes the block if condition is True

else condition :

- Executes the block if condition is False

In [61]:
```python
i = 50

if ( i < 100 ):
    print(" i is less than 100")
    print(" i'm  in if block")
```

i is less than 100
i'm in if block

In [64]:
```python
i = 50

if ( i > 100 ):
    print(" i is greater than 100")
    print(" i'm  in if block")
else:
    print("i is less than 100")
```

i is less than 100

Q)How many else statements can a single condition have in python ?

- A)a single if condition can have at most one else statement.However, you can have multiple elif(else if)statements to check additional conditions if needed.

In [ ]:

In [ ]:

In [ ]:

In [ ]:

In [ ]:

In [ ]: