

# Decision Making and Loops

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## Advanced Operators

```
>>> a = 1
>>> b = 2
>>> a == b
False
>>> a != b
True
>>> a > b
False
>>> a < b
True
>>> a <= b
True
>>> 1 <= 1
True
>>> True and False
False
>>> True or False
True
>>> not False
True
>>> not(1>2)
True
```

## Decision Making

### *Example 01*

```
number = 7
if number > 5:
    print("The number is greater than 5")
```

### *Example 02*

```
import random
number = random.choice(range(0,10))
if number > 5:
    print(number,"is greater than 5")
else:
    print(number,"is not greater than 5")
```

### *Example 03*

```
import random
```

```
number = random.choice(range(0,10))
if number > 5:
    print(number,"is greater than 5")
elif number == 5:
    print(number,"is 5")
else:
    print(number,"is not greater than 5")
```

## **Loops**

### *Example 01*

```
for i in range(1,11):
    print(i)
```

### *Example 02*

```
for i in range(1,100):
    if(i % 7 == 0):
        print(i)
```

### *Example 03*

```
i = 1
while i <= 10:
    print(i)
    i = i+1
```

### *Example 04*

```
import random
i = 1
while i <= 10:
    a = random.choice(range(1,11))
    if(a > 5):
        print(a,"is greater than 5!")
    else:
        print(a,"is not greater than 5!")
    i = i+1
```

## **Input Numbers and Strings**

```
name = input('Enter your name: ') # Input a string
print('Hello', name)
```

```
str1 = input('Enter an integer: ')
number = int(str1) #Convert a string to integer
```

```
a , b , c = map(int,input().split()) #Get 3 integers from input which are separated by spaces
```