



Session #004

How to get data input from user?

- Python provides `input()` function to get data from user
- It provides the data in string format only

Syntax 1

```
print(message)
variable=input()
```

Syntax 2

```
variable=input(message)
```

Test Case 1

Write a program to input name of a person and say hello to that name.

Test Case 2

WAP to input a number and show square of it.

Note: Convert the string type data into numeric data using `int()` or `float()` function

```
num=float(input("Enter a number"))
sq=num*num
print("Square is",sq)
```

Different ways of defining variables

- Single variable with single value
- Single variable with multiple values
- Multiple values with different value
- Multiple variables with same value

How to take decisions in Python?

- To take some decision Python provides **if** statement
- To take some decision we require special kind of operators
 - Conditional or **Relational** or Comparison operators
 - == equals to
 - != not equals to
 - > greater than
 - >= greater than or equals
 - < less than
 - <= less than or equals to
 - **Logical** Operators
 - and both conditions must be True
 - or any one condition must be true
 - not negate the result of a condition

Syntaxes of if statement

[a] only if

```
if condition:  
    statements
```

[b] if-else

```
if condition:  
    statements  
else:  
    statements
```

[c] if-else ladder

```
if condition1:  
    statements  
elif conditon2:  
    statements  
...  
else:  
    statements
```

[d] Nested if or condition within the condition

```
if condition:  
    if condition:  
        statements
```

Example 1

WAP to input a number and check it to be even or odd.

Note:

While writing the program codes using the property comments or remarks using #
Comments are just for reading and not interpreted by Python interpreter

Example 2

WAP to input a year and check it to be leap year.

Note:

A year divisible by 4 but not divisible by 100 or divisible by 400 is called as leap year.