29/09/25

Functions:

→ A function is a block of reusable code that performs specific task.

→ functions make our programs more organized, readable and reduce repitition.

Types of functions:

1) Built in functions
2) user defined functions.

1) Built in functions:

Built in functions are the functions that come pre-defined with python. You don't need to import any library or module to use them - they are available by default as soon as you start python.

→ Already available in python.

→ type(), print(), input(), len()

2) User defined functions :

→ functions created by the user using def keyword.

Syntax :

```
def fun_name (parameters):
    statements
    return value.
```

1) Function without input and without ~~ref~~ return.

2) Function with input and without return.

3) function without input and with return.

4) Function with input and with return.

Lambda function :

Anonymous (nameless) functions written in a single line using the lambda keyword.

1) function without input and without return.

Syntax :

```
def fun_name()
    statements
```

call :

```
fun_name()
```

program on Simple interest :

```
def Si():
    # local variables
    p = float(input("enter a principle amount: "))
    t = float(input("enter a time: "))
    r = float(input("enter a rate: "))
    Si = (p*t*r)/100.
    print("the simple interest is:", Si).
```

2) function with input and without return.

Syntax :

```
def fun_name (p1, p2 .... pn):
    statements
call:
fun_name (p1, p2 --- pn).
```

3) function without input and with return.

Syntax :

```
def fun_name():
    statements
call:
fun_name().
```

4) Function with input and with return

Syntax :

```
def fun_name (P1, P2 ---- Pn):
    Statements

call :
fun_name()
```