In [ ]:
```
"""
Functions :

1.Types of functions
2.Creating Function

a)Without parameter
b)with parameter
c)with return keyword

3.Docstring

4.Functional arguments
a)Positional arguments
b)default arguments
c)variable -length arguments
"""
```

1.Types of functions

1.Built-in function

2.user defined function

2.Creating function

In [2]:
```
#Without parametr
def add():
    a = 25
    b = 10
    print("Addition of two numbers: ",a+b)

add()
```

```
Addition of two numbers:  35
```

In [3]:
```
def add(a,b):
    print("Adiition of two numbers: ",a+b)

add(10,19)
```

```
Adiition of two numbers:  29
```

```
a)without parameter
b)with parameter
c)with return keyword

```

In [4]:

```
#difference between parameter and argument
"""
#Parameters

Parameters are defined by the names that appear in a function definition.
Parameters define what kind of arguments a function can accept.
Therefore, according to the above example of a Parameterized Function, the following is a parameter i.e. s

# Function Definition
def sample(str):

#Arguments

Arguments are the values actually passed to a function when calling it.
Therefore, according to the above example of a Parameterized Function, the following are the arguments
i.e Tesla, Audi, BMW and Toyota -

# Function calls
sample("Tesla")
sample("Audi")
sample("BMW")
sample("Toyota")

"""

#without parameter / zero parameter function

def intro():
    print("Hello Trupti Welcome to the EduTECH")

intro()

```

```
Hello Trupti Welcome to the EduTECH
```

In [6]:
```
#with parameter

def intro2(name):
    #name = parameter
    #this is single parameter function

    print(f"Hello {name} welcome to EduTECH")
intro2("Priti")
```

```
Hello Priti welcome to EduTECH
```

In [8]:
```
def intro3(name ,c_name):
    print(f"Hello {name} are you looking for {c_name}?")
intro3("Trupti","Data Analysis")
```

```
Hello Trupti are you looking for Data Analysis?
```

In [10]:
```
#With return keyword

def add(a,b):
    return a+b

print("Addition is:", add(10,9))
```

```
Addition is: 19
```

4.Function Arguments

```
a) Positional Argument
b)keyword argument
c) Default argument
d)Variable length argument
```

In [11]:
```
#Positional Argument

def display(name,s_name):
    print("Name is: ",name)
    print("Surname is: ",s_name)
display("Ajay","Tak")
```

```
Name is:  Ajay
Surname is:  Tak
```

In [12]:
```
display("Vishal")
```

```
---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
Cell In[12], line 1
----> 1 display("Vishal")

TypeError: display() missing 1 required positional argument: 's_name'
```

In [13]:
```
#Keyword argument

display(s_name = "Mane",name= "Trupti")
```

```
Name is:  Trupti
Surname is:  Mane
```

In [14]:
```
#default Argument

def show(name,city="Pune"):
    print("Name is: ",name)
    print("City is: ",city)

show("Trupti")
show("Priyanka","Mumbai")
```

```
Name is:  Trupti
City is:  Pune
Name is:  Priyanka
City is:  Mumbai
```

In [18]:
```
"""
A positional argument is a name that is not followed by an equal sign (=) and default value.

A keyword argument is followed by an equal sign and an expression that gives its default value.
"""
def rectangleArea(width, height):
    return width * height


print("Area of rectangle is : ", rectangleArea(width=1, height=2))
```

```
Area of rectangle is :  2
```

In [ ]:
```

```