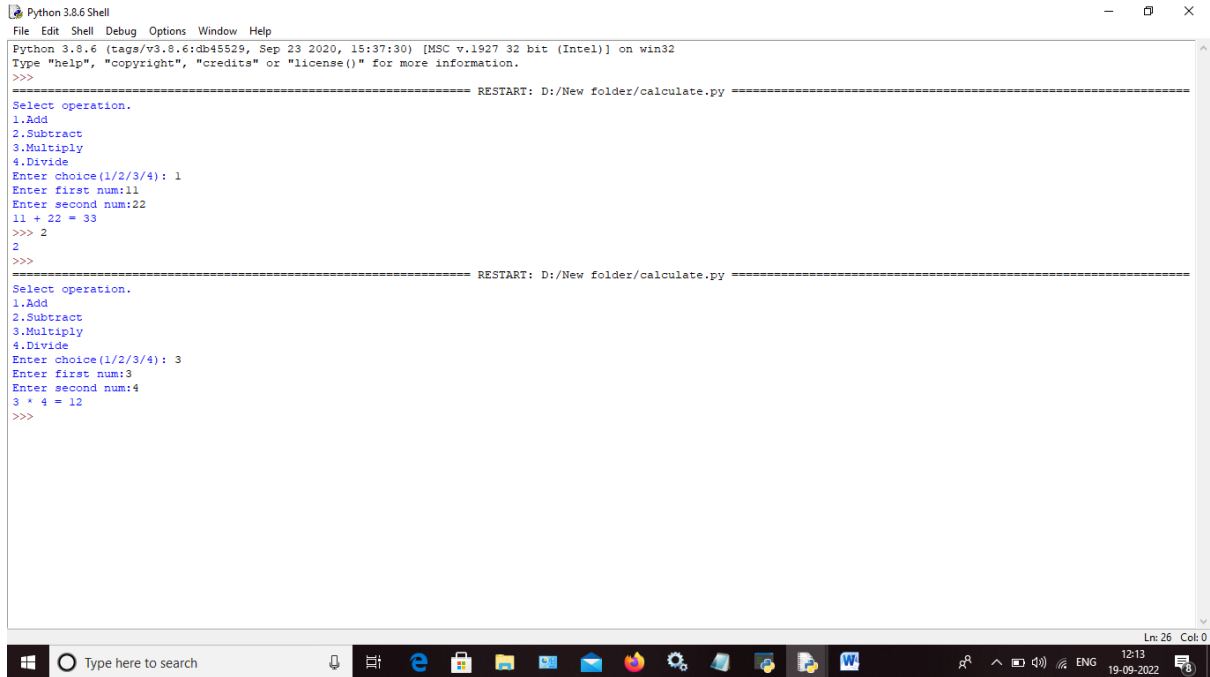


## 1. Write a Calculated Program

```
def add(x, y):  
    return x + y  
  
def subtract(x, y):  
    return x - y  
  
def multiply(x, y):  
    return x * y  
  
def divide(x, y):  
    return x / y  
  
print("Select operation.")  
  
print("1.Add")  
  
print("2.Subtract")  
  
print("3.Multiply")  
  
print("4.Divide")  
  
choice = input("Enter choice(1/2/3/4): ")  
  
num1=int(input("Enter first num:"))  
  
num2=int(input("Enter second num:"))  
  
if choice == '1':  
    print(num1,"+",num2,"="add(num1,num2))  
  
elif choice == '2':  
    print(num1,"-",num2,"="subtract(num1,num2))  
  
elif choice == '3':  
    print(num1,"*",num2,"="multiply(num1,num2))  
  
elif choice == '4':  
    print(num1,"/",num2,"="divide(num1,num2))  
  
else:  
    print("Invalid input")
```

## Output



```
Python 3.8.6 Shell
File Edit Shell Debug Options Window Help
Python 3.8.6 (tags/v3.8.6:db45529, Sep 23 2020, 15:37:30) [MSC v.1927 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: D:/New folder/calculate.py =====
Select operation.
1.Add
2.Subtract
3.Multiply
4.Divide
Enter choice(1/2/3/4): 1
Enter first num:11
Enter second num:22
11 + 22 = 33
>>> 2
2
>>>
===== RESTART: D:/New folder/calculate.py =====
Select operation.
1.Add
2.Subtract
3.Multiply
4.Divide
Enter choice(1/2/3/4): 3
Enter first num:3
Enter second num:4
3 * 4 = 12
>>>
```

## 2.List program (append,pop,insert,sort,reverse,remove,print)

```
a=[1,2,3,4]
```

```
a.append(66)
```

```
a.pop()
```

```
a.insert(2,10)
```

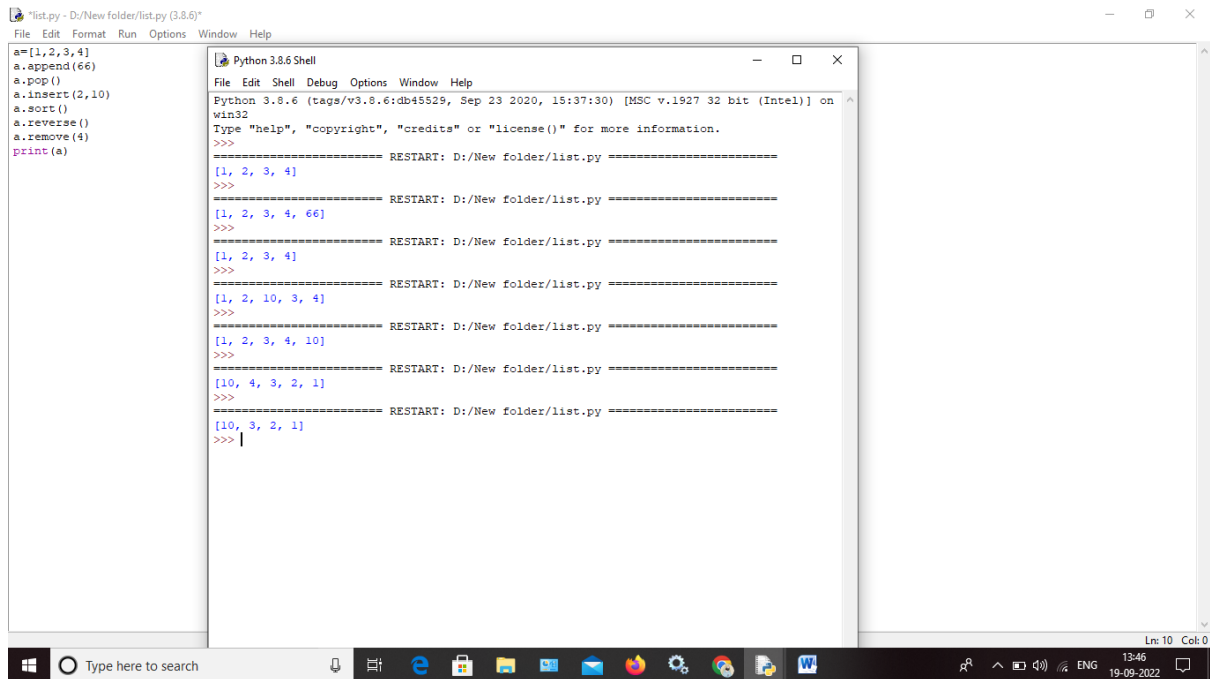
```
a.sort()
```

```
a.reverse()
```

```
a.remove(4)
```

```
print(a)
```

**output:**



The screenshot shows a Python IDE with a script on the left and a shell window on the right. The script performs a series of list operations: initial list [1, 2, 3, 4], append 66, pop, insert 10 at index 2, sort, reverse, and remove 4. The shell window shows the output of these operations after multiple restarts of the script, resulting in the final list [10, 3, 2, 1].

```
a=[1,2,3,4]
a.append(66)
a.pop()
a.insert(2,10)
a.sort()
a.reverse()
a.remove(4)
print(a)
```

```
Python 3.8.6 Shell
Python 3.8.6 (tags/v3.8.6:db45529, Sep 23 2020, 15:37:30) [MSC v.1927 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: D:/New folder/list.py =====
[1, 2, 3, 4]
>>>
===== RESTART: D:/New folder/list.py =====
[1, 2, 3, 4, 66]
>>>
===== RESTART: D:/New folder/list.py =====
[1, 2, 3, 4]
>>>
===== RESTART: D:/New folder/list.py =====
[1, 2, 10, 3, 4]
>>>
===== RESTART: D:/New folder/list.py =====
[1, 2, 3, 4, 10]
>>>
===== RESTART: D:/New folder/list.py =====
[10, 4, 3, 2, 1]
>>>
===== RESTART: D:/New folder/list.py =====
[10, 3, 2, 1]
>>> |
```

### 3.String(Concatenate, Slice, Reverse)

```
a=("Guru")
```

```
b=("keerthika")
```

```
c=a+b
```

```
print(c)
```

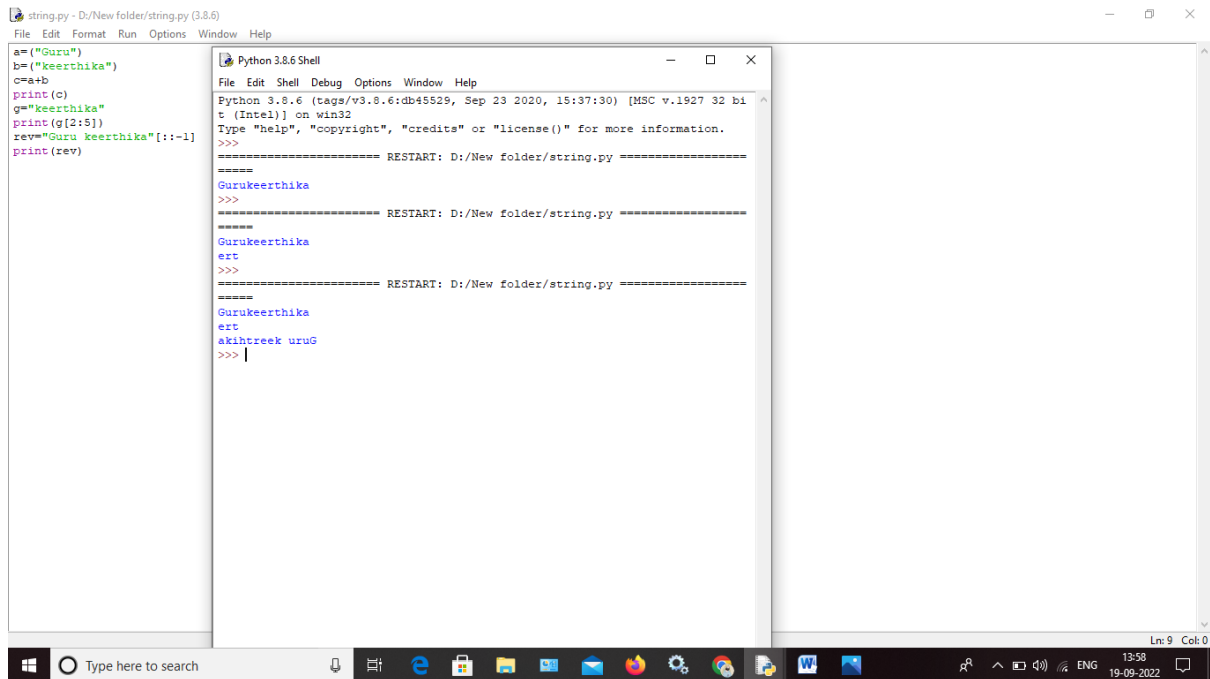
```
g="keerthika"
```

```
print(g[2:5])
```

```
rev="Guru keerthika"[::-1]
```

```
print(rev)
```

**output:**



```
string.py - D:/New folder/string.py (3.8.6)
File Edit Format Run Options Window Help

a="Guru"
b=("keerthika")
c=a+b
print(c)
g="keerthika"
print(g[2:5])
rev="Guru keerthika"[::-1]
print(rev)

Python 3.8.6 Shell
File Edit Shell Debug Options Window Help
Python 3.8.6 (tags/v3.8.6:db45529, Sep 23 2020, 15:37:30) [MSC v.1927 32 bi
t (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: D:/New folder/string.py =====
Gurukeerthika
>>>
===== RESTART: D:/New folder/string.py =====
Gurukeerthika
ert
>>>
===== RESTART: D:/New folder/string.py =====
Gurukeerthika
ert
akihrtreek uruG
>>> |
```

#### 4.why is python a popular programming language?

It uses a **simplified syntax with an emphasis on natural language**, for a much **easier learning curve for beginners**. And, because Python is free to use and is supported by an extremely large ecosystem of libraries and packages, it's often the first-choice language for new developers.

#### 5. What are the other frameworks that can be used with Python?

- Bottle.
- Flask.
- Django.
- Web2py.
- AIOHTTP.
- CherryPy.
- Dash.
- Falcon.

#### 6.Full form of WSGI?

WSGI stands for "**Web Server Gateway Interface**". It is used to forward requests from a web server (such as Apache or NGINX) to a backend Python web application or framework.

