

1.write a calculator program in python?

```
# Function to add two numbers
def add(num1, num2):
    return num1 + num2

# Function to subtract two numbers
def subtract(num1, num2):
    return num1 - num2

# Function to multiply two numbers
def multiply(num1, num2):
    return num1 * num2

# Function to divide two numbers
def divide(num1, num2):
    return num1 / num2

print("Please select operation -\n" \
      "1. Add\n" \
      "2. Subtract\n" \
      "3. Multiply\n" \
      "4. Divide\n")

# Take input from the user
select = int(input("Select operations form 1, 2, 3, 4 :"))

number_1 = int(input("Enter first number: "))
number_2 = int(input("Enter second number: "))

if select == 1:
    print(number_1, "+", number_2, "=",
          add(number_1, number_2))

elif select == 2:
    print(number_1, "-", number_2, "=",
          subtract(number_1, number_2))
```

```

elif select == 3:
    print(number_1, "*", number_2, "=",
          multiply(number_1, number_2))

elif select == 4:
    print(number_1, "/", number_2, "=",
          divide(number_1, number_2))

else:
    print("Invalid input")

```

2.write a program to concatenate,reverse,and slice a string?

concatenation:

```

def reversed_string(text):
    result = ""
    for char in text:
        result = char + result
    return result

```

```
reversed_string("Hello, World!")
```

```
'!dlrow ,olleH'
```

Reverse:

```

def reversed_string(text):
    result = ""
    index = len(text) - 1
    while index >= 0:
        result += text[index]
        index -= 1
    return result

```

```
reversed_string("Hello, World!")
```

```
'!dlrow ,olleH'
```

slicing:

```
greeting = "Hello, World!"
```

```
for char in greeting[::-1]:  
    print(char)
```

```
!  
d  
l  
r  
o  
w  
  
,  
o  
l  
l  
e  
H
```

```
greeting[::-1]  
'!dlrow ,olleH'
```

3.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.

4.what are the other frameworks that can be used with python?

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

5.full form of WSGI?

The **Web Server Gateway Interface** (WSGI, pronounced whiskey or WIZ-ghee) is a simple calling convention for web servers to forward requests to web applications or frameworks written in the Python programming language. The current version of WSGI, version 1.0.