

Module 3: Python Assignment

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1. List operations

Code

```
# Enter the initial size of the list
n = int(input())

# Enter the initial contents of the list
l = list(map(int, input().split()))

# Enter the number of commands
m = int(input())

# Enter and process the commands
for i in range(m):
    command = input()
    command_name = command.split()[0]

    if command_name == "insert":
        _, i, e = command.split()
        l.insert(int(i), int(e))
    elif command_name == "print":
        print(l)
    elif command_name == "remove":
        _, e = command.split()
        l.remove(int(e))
    elif command_name == "append":
        _, e = command.split()
        l.append(int(e))
    elif command_name == "sort":
        l.sort()
    elif command_name == "pop":
        l.pop()
    elif command_name == "reverse":
        l.reverse()
```

Output

```

joseph@DESKTOP-6VAEMBG:~/random-stuff$ python3 script.py
5
1 4 2 5 3
14
sort
print
[1, 2, 3, 4, 5]
reverse
print
[5, 4, 3, 2, 1]
insert 0 6
print
[6, 5, 4, 3, 2, 1]
append 7
print
[6, 5, 4, 3, 2, 1, 7]
remove 4
print
[6, 5, 3, 2, 1, 7]
pop
print
[6, 5, 3, 2, 1]
insert 2 4
print
[6, 5, 4, 3, 2, 1]
joseph@DESKTOP-6VAEMBG:~/random-stuff$

```

2. Calculator

Code

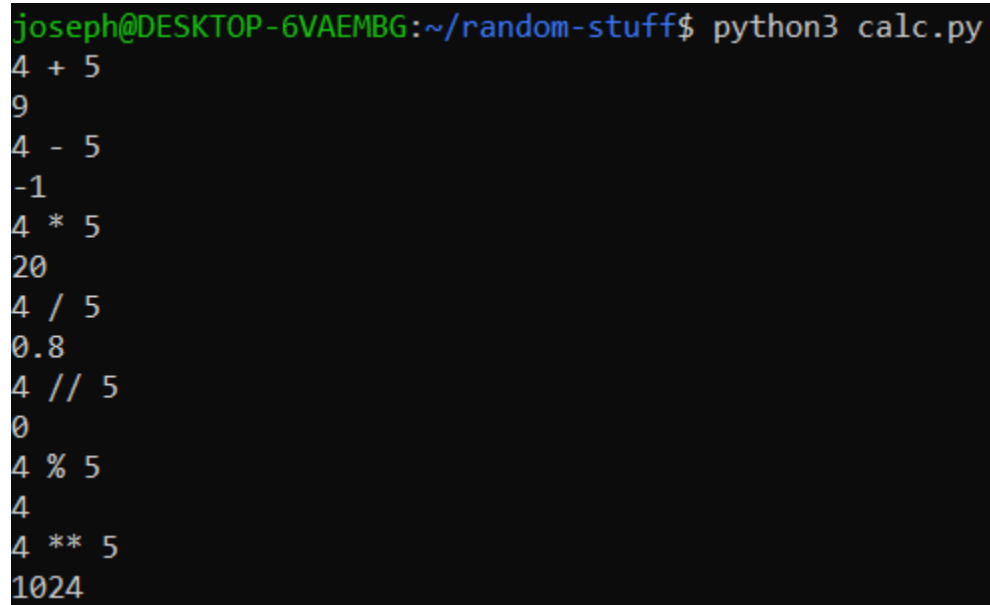
```

while True:
    a, op, b = tuple(input().split())
    a, b = int(a), int(b)
    if op == "+":
        print(a + b)
    elif op == "-":
        print(a - b)
    elif op == "*":
        print(a * b)
    elif op == "/":
        print(a / b)

```

```
elif op == "//":  
    print(a // b)  
elif op == "%":  
    print(a % b)  
elif op == "**":  
    print(a ** b)
```

Output



```
joseph@DESKTOP-6VAEMBG:~/random-stuff$ python3 calc.py  
4 + 5  
9  
4 - 5  
-1  
4 * 5  
20  
4 / 5  
0.8  
4 // 5  
0  
4 % 5  
4  
4 ** 5  
1024
```

3. String operations

Code

```
s = "hello"  
t = "world"  
  
# Concatenate s and t  
print(s + t)  
  
# Reverse s  
print(s[::-1])  
  
# Slice s  
print(s[1:3])
```

Output

```
joseph@DESKTOP-6VAEMBG:~/random-stuff$ python3 string.py  
helloworld  
olleh  
el
```

4. Why is Python a popular programming language?

- Python is easy to learn
- Python has an active community
- Python is flexible
- Python efficient, fast and reliable

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

- Web2Py
- Flask
- Bottle
- CherryPy

6. What is the full form of WSGI?

The full form of WSGI is Web Server Gateway Interface.