Module 3: Python Assignment

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List operations

Code

```
# Enter the initial size of the list
n = int(input())
# Enter the initial contents of the list
1 = 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(1)
   elif command name == "remove":
        _, e = command.split()
        1.remove(int(e))
    elif command_name == "append":
        _, e = command.split()
        1.append(int(e))
   elif command_name == "sort":
        1.sort()
   elif command_name == "pop":
        1.pop()
    elif command_name == "reverse":
        1.reverse()
```

Output

```
joseph@DESKTOP-6VAEMBG:~/random-stuff$ python3 script.py
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]
```

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

Output

```
s = "hello"
t = "world"

# Concatenate s and t
print(s + t)

# Reverse s print(s[::-
1])

# Slice s
print(s[1:3])
```

```
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.