

Assignment 3

1) Consider a list (`list = []`). You can perform the following commands:

insert : Insert integer at position .

print: Print the list.

remove e: Delete the first occurrence of integer .

append e: Insert integer at the end of the list.

sort: Sort the list.

pop: Pop the last element from the list.

reverse: Reverse the list.

Initialize your list and read in the value of followed by lines of commands where each command will be of the types listed above. Iterate through each command in order and perform the corresponding operation on your list.

```
if __name__ == '__main__':
```

```
    N = int(input())
```

```
    L=[];
```

```
    for i in range(0,N):
```

```
        cmd=input().split();
```

```
        if cmd[0] == "insert":
```

```
            L.insert(int(cmd[1]),int(cmd[2]))
```

```
        elif cmd[0] == "append":
```

```
            L.append(int(cmd[1]))
```

```
        elif cmd[0] == "pop":
```

```
            L.pop();
```

```
        elif cmd[0] == "print":
```

```
            print(L)
```

```
        elif cmd[0] == "remove":
```

```
            L.remove(int(cmd[1]))
```

```
        elif cmd[0] == "sort":
```

```
            L.sort();
```

```
        else:
```

```
            L.reverse();
```

2) *Write a Calculator program in Python?*

```
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")


while True:

    choice = input("Enter choice(1/2/3/4): ")

    if choice in ('1', '2', '3', '4'):

        num1 = float(input("Enter first number: "))

        num2 = float(input("Enter second number: "))

        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))

        next_calculation = input("Let's do next calculation? (yes/no): ")

        if next_calculation == "no":
```

```
        break

    else:

        print("Invalid Input")
```

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. It is supported by an externally large ecosystem of libraries and packages.

4) ***What are the other Frameworks that can be used with python?***

Django

Pyramid

turbogears

web2py

cherry py

flask

sanic

5) ***Full form of WSGI?***

WSGI-Web server gateway interface