Lab Report 2

Pre-Lab

Revise All Previous Tasks and Python Syntax

In-Lab

Task 1

```
phonebook = {}

phonebook [ "John"] = {"Phone": "012 794 794","Email": "john@email.com"}

phonebook[ "Jill"] = {"Phone": "012 345 345","Email": "jill@email.com"}
phonebook [ "Joss"] = {"Phone": "012 321 321","Email": "joss@email.com"}

print(phonebook)
```

Output:

Figure 1: In Lab Task 1.

Task 2

```
mylist = [1, 2, 3, 4, 5]


print("First Element:", mylist[0])
print("Last Element:", mylist[-1])


print("Sliced List:", mylist[1:4])


print("\nList Elements:")
for number in mylist:
    print(number)

mylist[2] = 6

mylist.append(7)
mylist.append(8)

mylist.remove(4)

print("\nUpdated List:")
for number in mylist:
    print(number)
```

```
popped_element = mylist.pop()

print("\nPopped Element:", popped_element)

for number in mylist:
    print(number)
```

Output:

```
In [21]: runfile('C:/Users/ahsan/.spyder-py3/temp.py', wdir='C:/Users/ahsan/.spyder-py3')
First Element: 1
Last Element: 5
Sliced List: [2, 3, 4]

List Elements:
1
2
3
4
5

Updated List:
1
2
6
5
7
8

Popped Element: 8
1
2
6
5
7
```

Figure 2: InLab Task 2.

Task 3

```
#%%
#cell-1
print("HELLO WORLD")

#%%
#cell-2
print("AHSAN")
```

Output:

```
In [14]: runcell(1, 'C:/Users/ahsan/.spyder-py3/temp.py')
HELLO WORLD

In [15]: runcell(2, 'C:/Users/ahsan/.spyder-py3/temp.py')
AHSAN
```

Figure 3: InLab Task 3.

Task 3

```
x = 1
if x == 1:
    print(“x is 1”)
```

Output:

```
In [3]: runfile('C:/Users/ahsan/.spyder-py3/
temp.py', wdir='C:/Users/ahsan/.spyder-py3')
x is 1
```

Figure 4: InLab Task 3.

Post Lab

Task 1

```
# Example of a for loop
for i in range(5):
    print("This is iteration", i + 1)
```

Output:

```
In [4]: runfile('C:/Users/ahsan/.spyder-py3/
temp.py', wdir='C:/Users/ahsan/.spyder-py3')
This is iteration 1
This is iteration 2
This is iteration 3
This is iteration 4
This is iteration 5
```

Figure 5: Post Lab Task 1.

Task 2

```
count = 0
while count < 5:
    print("This is while iteration", count + 1)

    count += 1
```

Output:

```
In [6]: runfile('C:/Users/ahsan/.spyder-py3/
temp.py', wdir='C:/Users/ahsan/.spyder-py3')
This is while iteration 1
This is while iteration 2
This is while iteration 3
This is while iteration 4
This is while iteration 5
```

Figure 6: Post Lab Task 2.

Task 3

```
# Example of an if condition
x = 10
if x > 5:
    print("x is greater than 5")
else:
    print("x is not greater than 5")
```

Output:

```
In [7]: runfile('C:/Users/ahsan/.spyder-py3/
temp.py', wdir='C:/Users/ahsan/.spyder-py3')
x is greater than 5
```

Figure : Post Lab Task 3.