

Lab Report

In lab Task 1:

```
phonebook = {}

phonebook["Jhon"] = {"Phone": "0332525345", "Email": "jhon@gmail.com"}
phonebook["Jill"] = {"Phone": "0321543525", "Email": "jill@gmail.com"}
phonebook["Joss"] = {"Phone": "0333351345", "Email": "joss@gmail.com"}

print(phonebook)
```

Code output:

```
D:\Python37\python.exe D:\AI_Labs\FA21BCE084_AI_LAB\lab2\task1.py
{'Jhon': {'Phone': '0332525345', 'Email': 'jhon@gmail.com'}, 'Jill': {'Phone': '0321543525', 'Email': 'jill@gmail.com'}, 'Joss': {'Phone': '0333351345', 'Email': 'joss@gmail.com'}}

Process finished with exit code 0
```

In lab Task 2:

```
phonebook = {}
phonebook["Jhon"] = {"Phone": "0332525345", "Email": "jhon@gmail.com"}
phonebook["Jill"] = {"Phone": "0321543525", "Email": "jill@gmail.com"}
phonebook["Joss"] = {"Phone": "0333351345", "Email": "joss@gmail.com"}
print(phonebook)

for name, record in phonebook.items():
    print("{}'s phone number is {}, and email is {}".format(name, record["Phone"], record["Email"]))
```

Code output:

```
D:\Python37\python.exe D:\AI_Labs\FA21BCE084_AI_LAB\lab2\task2.py
{'Jhon': {'Phone': '0332525345', 'Email': 'jhon@gmail.com'}, 'Jill': {'Phone': '0321543525', 'Email': 'jill@gmail.com'}, 'Joss': {'Phone': '0333351345', 'Email': 'joss@gmail.com'}}
Jhon's phone number is 0332525345, and email is jhon@gmail.com
Jill's phone number is 0321543525, and email is jill@gmail.com
Joss's phone number is 0333351345, and email is joss@gmail.com

Process finished with exit code 0
```

In lab Task 3:

```
phonebook = {}
phonebook["Jhon"] = {"Phone": "0332525345", "Email": "jhon@gmail.com"}
phonebook["Jill"] = {"Phone": "0321543525", "Email": "jill@gmail.com"}
phonebook["Joss"] = {"Phone": "0333351345", "Email": "joss@gmail.com"}
print(phonebook)

for name, record in phonebook.items():
    print("{}'s phone number is {}, and email is {}".format(name, record["Phone"], record["Email"]))

jill_record = phonebook.pop("Jill")
for name, record in phonebook.items():
    print("{}'s phone number is {}, and email is {}".format(name, record["Phone"], record["Email"]))

del phonebook["Ali"]
```

Code output:

```
D:\Python37\python.exe D:\AI_Labs\FA21BCE084_AI_LAB\lab2\task3.py
{'Jhon': {'Phone': '0332525345', 'Email': 'jhon@gmail.com'}, 'Jill': {'Phone': '0321543525', 'Email': 'jill@gmail.com'}, 'Joss': {'Phone': '0333351345', 'Email': 'joss@gmail.com'}}
Jhon's phone number is 0332525345, and email is jhon@gmail.com
Jill's phone number is 0321543525, and email is jill@gmail.com
Joss's phone number is 0333351345, and email is joss@gmail.com
Jhon's phone number is 0332525345, and email is jhon@gmail.com
Joss's phone number is 0333351345, and email is joss@gmail.com
Traceback (most recent call last):
  File "D:\AI_Labs\FA21BCE084_AI_LAB\lab2\task3.py", line 14, in <module>
    del phonebook["Ali"]
KeyError: 'Ali'

Process finished with exit code 1
```

In lab Task 4:

Task4_a

```
number = 1 + 3 * 3/4.0
print(number)

remainder = 10 % 3
print(remainder)

squared = 4 ** 2
print(squared)
```

```
cubed = 2 ** 3
print(cubed)
```

Code output:

```
D:\Python37\python.exe D:\AI_Labs\FA21BCE084_AI_LAB\lab2\task4a.py
3.25
1
16
8

Process finished with exit code 0
```

Task4_b

```
evenNumbers = [2, 4, 6, 8]
oddNumbers = [1, 3, 5, 7]

allNumbers = oddNumbers + evenNumbers

print(allNumbers)
```

Code output:

```
D:\Python37\python.exe D:\AI_Labs\FA21BCE084_AI_LAB\lab2\task4b.py
[1, 3, 5, 7, 2, 4, 6, 8]

Process finished with exit code 0
```

Task4_c

```
x = object()
y = object()

x_list = [x,x,x,x,x,x,x,x,x]
y_list = [y,y,y,y,y,y,y,y,y]

concat_list = x_list + y_list

print("X List contains { } objects" .format(len(x_list)))
print("Y List contains { } objects" .format(len(y_list)))
print("Concat List contains { } objects" .format(len(concat_list)))
```

Code output:

```
D:\Python37\python.exe D:\AI_Labs\FA21BCE084_AI_LAB\lab2\task4c.py
X List contains 10 objects
Y List contains 10 objects
Concat List contains 20 objects

Process finished with exit code 0
```

In lab Task 5:

```
hello = "Hello"
world = "World"
print("{} , {}".format(hello, world))

print("{} {} {} {} {} {}".format(hello, hello, hello, hello, hello, hello))
```

Code output:

```
D:\Python37\python.exe D:\AI_Labs\FA21BCE084_AI_LAB\lab2\task5.py
Hello, World
Hello Hello Hello Hello Hello

Process finished with exit code 0
```

In lab Task 6:

```
x = 3
print (x == 3)
print (x == 2)
print (x < 5)
name = "saira"
print(name == "saira" and x == 2)
print(name == "saira" or name == "John")

print(name in ["John", "Jill", "Jess"])
```

Code output:

```
D:\Python37\python.exe D:\AI_Labs\FA21BCE084_AI_LAB\lab2\task6.py
True
False
True
False
True
False

Process finished with exit code 0
```

In lab Task 7:

```
x = 2
y = 10

if x>2:
    print("x > 2")
elif x == 2 and y > 50:
    print("x == 2 and y > 50")
elif x < 10 or y > 50:
    print("x < 10 or y > 50")
else:
    print("Nothing happened")

nameList1 = ["John", "Jill"]
nameList2 = ["John", "Jill"]

print(not(nameList1 == nameList2))

print(nameList1 == nameList2)
print(nameList1 is nameList2)
```

Code output:

```
D:\Python37\python.exe D:\AI_Labs\FA21BCE084_AI_LAB\lab2\task7.py
x < 10 or y > 50
False
True
False

Process finished with exit code 0
```

In lab Task 8:

```
numbers = [10, 20, 30, 40, 50]
```

```
for number in numbers:
    result = number * 2
    print(result)
```

```
text = "Hello World"
```

```
for char in text:
    print(char)
```

```
newText = ""
```

```
for char in text:
    if char.isalpha():
        newText += char.upper()
    else:
        newText += char
```

```
print(newText)
```

```
numericData = []
```

```
for i in range(1, 11):
    numericData.append(i)
```

```
print(numericData)
```

Code output:

```
D:\Python37\python.exe D:\AI_Labs\FA21BCE084_AI_LAB\lab2\task8.py
20
40
60
80
100
H
e
l
l
o

W
o
r
l
d
HELLO WORLD
[1, 2, 3, 4, 5, 6, 7, 8, 9, 10]

Process finished with exit code 0
```

In lab Task 9:

```
count = 1
while count < 5:
    print(count)
    count += 1

text = "Hello"
index = 0
while index < len(text):
    print(text[index])
    index += 1

grades = {"saira": 92, "ali": 79, "Ahmad": 98}
keys = list(grades.keys())
index = 0
while index < len(keys):
    key = keys[index]
    value = grades[key]
    print(f"{key}: {value}")
    index += 1
```


Code output:

```
D:\Python37\python.exe D:\AI_Labs\FA21BCE084_AI_LAB\lab2\task9.py
1
2
3
4
H
e
l
l
o
saira: 92
ali: 79
Ahmad: 98

Process finished with exit code 0
```