Nabarun Kar
CSE 2nd Year 3rd Sem

Roll 33

OUTPUTS

Q1

```
Maximum Value:  100
Minimum Value:  3
```

Q2

```
Enter number of students: 4
Enter name: Sam
Enter class: 2
Enter subjects: English Evs
Enter name: Kevin
Enter class: 2
Enter subjects: Science
Enter name: Sam
Enter class: 2
Enter subjects: English Evs
Enter name: Lily
Enter class: 2
Enter subjects: Arithmetic
Entered data:
Name:  Sam
Class : 2
Subjects : ['English', 'Evs']

Name:  Kevin
Class : 2
Subjects : ['Science']

Name:  Lily
Class : 2
Subjects : ['Arithmetic']

After deleting duplicate items:
Name:  Sam
Class:  2
Subjects:  ['English', 'Evs']

Name:  Kevin
Class:  2
Subjects:  ['Science']

Name:  Lily
Class:  2
Subjects:  ['Arithmetic']

>>>
```

Q3

```
Our dictionaries:
{9: 10, 11: 20}
{4: 30, 7: 80}
{5: 50, 6: 60}
Concatenated dictionary:
{9: 10, 11: 20, 4: 30, 7: 80, 5: 50, 6: 60}
```

Q4

```
The product is:  567
```

Q5

```
Sorted list:
a 4
c 9
f 26
l 21
m 88
o 6
z 33
```

Q6

```
Enter the number of elements: 2
Enter element: 3
Enter key: 1
Enter element: 4
Enter key: 2
Dictionary is not empty.
```

```
Enter the number of elements: 0
Dictionary is empty.
```

Q7

```
Enter number of items to convert to cm: 2
Enter length in metres: 5
Enter length in metres: 6
Enter number of items to convert to m: 2
Enter length in centimeters: 50
Enter length in centimeters: 60
5 m = 500 cm
6 m = 600 cm
50 cm = 0.5 m
60 cm = 0.6 m
```

Q8

```
Enter the number of elements: 2
Enter key: 1
Enter number: 10
Enter key: 2
Enter number: 20
Original dictionary:
{'1': '10', '2': '20'}

Dictionary after swapping:
Keys : Values
10   :   1
20   :   2
```

QUESTIONNAIRE

1. **What are the advantages of dictionary over list?**

Python offers many different data structures to store information, and dictionary is one of the simplest and most useful. Unlike other data types that hold only one value as an element, a Python dictionary holds a key: value pair. Key-value is provided in the dictionary to make it more optimized

The Python dictionary is optimized in a manner that allows it to access values when the key is known. While each key is separated by a comma in a Python Dictionary, each key-value pair is separated by a colon. Moreover, while the keys of the dictionary have to be unique and immutable (tuples, strings, integers, etc), the key-values can be of any type and can also be repeated any number of times.