

Fourth Industrial Revolution (4IR) Summer School

Python Programming – Day 3 exercises

Collections

Question 1 [Sets intersection]

Write a Python program that reads two integer number sets from the user and then prints their intersection.

```
Enter set1 numbers: 1 2 3 4 5
Enter set2 numbers: 1 3 5 7 8 9
Intersection = {'1', '3', '5'}
```

Question 2 [Largest number]

Write a Python program to read a list of integer numbers from the user and then

- Print the **largest** number in the list
- Print the **smallest** number in the list

```
Enter numbers: 80 0 -100 200
Largest number: 200
Smallest number: -100
```

Question 3 [Remove even numbers]

Write a Python program to read a list of integer numbers from the user. Then create a new list with even numbers removed from the old list.

```
Enter numbers: 10 9 3 -100 17 22
New list: [9, 3, 17]
```

Question 4 [Class average]

Write a Python program to read students marks from the user and then prints the class average. Your program must continue reading marks from the user until the user enter -1 to indicate the end of marks.

```
Enter a student mark: 90.0
Enter a student mark: 70.5
Enter a student mark: 50.3
Enter a student mark: 96.0
Enter a student mark: 88.9
Enter a student mark: -1
```

```
Class average: 79.14
```

Question 5 [Student marks storage]

Write a Python program to read five students marks and store them in a dictionary. Dictionary key should be the student id, and the value associated is the mark. Sort the dictionary based on key, and then print the dictionary.