

BSc (Hons) in Information Technology Year 2

Week 9 - Collections

IT2030 – Object Oriented Programming

Semester 1, 2020

Exercise 1

• Create an integer ArrayList object. Check array list is empty or not. If ArrayList is not empty, add 10 numbers. The numbers must be taken as keyboard inputs. Access each element of ArrayList and calculate the total print the 10 numbers.

Exercise 2

- Create a Student Object with studentID, Name and GPA.
- Create an ArrayList called StudentList and making use of the Collection Interface add 3
 Student Objects to the ArrayList. Ensure that no other types of data can be added to this
 StudentList
- Display all the Student details by iterating through the StudentList.

Exercise 3

- You are required to input details of heights of students in a class and display only the unique heights of the students.
- Use an appropriate collection class, store input details of 10 heights of students and display only the unique heights.

Exercise 4

- You are required to store the student objects that you have created in Exercise 2 so that they can be directly accessed by the student number.
- Use an appropriate collection class, and store the student objects so that they can be directly accessed by the student number.
- Input a student number and directly access details of that particular student using the collection object used.