Lab 2
Arrays and Linked Lists

Aim and Objectives

• To implement basic operations (e.g., add, remove) over an array.

• To implement basic operations over a singly linked list.

• To implement basic operations over a doubly linked list.

Reading

M. T. Goodrich, R. Tamassia and M. H. Goldwasser, *Data Structures and Algorithms in Java*, 6th Edition, 2014.

- Chapter 3. Arrays and Linked Lists

Exercise 1

- Consider an application of storing a sequence of high score entries for a video game in an array.

- The class GameEntry is given in GameEntry.java.

- The class Scoreboard is given in Scoreboard.java.

- Complete the implementation of the methods for adding an entry and removing an entry in Scoreboard.java.

- The expected output of Scoreboard.java is provided in Scoreboard_output.txt.

Exercise 2

- Complete the implementation of the singly linked list in SinglyLinkedList.java.

- The expected output of SinglyLinkedList.java is provided in SinglyLinkedList_output.txt.

Exercise 3

- Complete the implementation of the doubly linked list in DoublyLinkedList.java.

- The expected output of DoublyLinkedList.java is provided in DoublyLinkedList_output.txt.