BACS2063 Data Structures and Algorithms

**ASSIGNMENT 202205**

Student Name :

Student ID :

Programme :

Tutorial Group :

Assignment Title :

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| **Declaration**   * I confirm that I have read and complied with all the terms and conditions of Tunku Abdul Rahman University College’s plagiarism policy. * I declare that this assignment is free from all forms of plagiarism and for all intents and purposes is my own properly derived work. |

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Student’s signature

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Date

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# 1. Introduction

// Provide a clear and concise overview of your chosen application and assignment scope.

# 2. Abstract Data Type (ADT) Specification

// Write the complete ADT specification for ONE (1) collection ADT that you selected. Remember to follow the ADT specification format.

# 3. ADT Implementation

## 3.1 Overview of ADT

// Provide a clear and concise overview on how you implemented ONE (1) collection ADT that you selected.

## 3.2 ADT Implementation

// Include your complete source code with proper indentation for the Java interface and implementation class for ONE (1) collection ADT for which you were the author.

# 4. Entity Classes

## 4.1 Entity Class Diagram

// The entity class diagram should ONLY include the entity classes that you used in your individual assignment scope.

// Omit the constructor, setter, getter, toString(), equals, compareTo() in each class

// Remember that entity class diagram ≠ entity-relationship diagram (ERD)!

## 4.2 Entity Class Implementation

// Include the complete source code ONLY for the entity classes for which you were the author.

// Remember to use object references instead of foreign keys to represent relationships between classes. Ensure that your entity classes’ implementations are consistent with your entity class diagram.

# 5. Client Program

// Include a clear and concise explanation why you selected the collection ADTs that you used in your client classes.

// For console-based prototypes, include the complete source code here. For GUI-based prototypes, include clear screenshots of your code snippets illustrating the declaration and use of all collection ADTs in your client classes. Label your figures clearly.