Labsheet 01 – Introduction to Data Structures and Algorithms

This labsheet serves as an introductory guide to the core concepts of Data Structures and Algorithms (DSA). It is designed to familiarize students with the foundational principles necessary for efficient programming and problem-solving. The practical tasks in this labsheet focus on basic algorithm analysis, the use of arrays, and implementation of simple operations such as insertion, deletion, and traversal. Students will gain hands-on experience in writing clean, optimized code and understanding how data is stored, accessed, and manipulated in memory. By the end of this session, learners will be able to explain the importance of choosing appropriate data structures and begin developing the analytical skills needed to evaluate algorithm performance.