Exam Preparation: Data Structures

- Introduction to Data Structures
  - Definition and importance
  - Types of data structures

- Arrays
  - Fixed size
  - Accessing elements
  - Pros and cons

- Linked Lists
  - Flexibility in adding/removing data
  - Types of linked lists
  - Pros and cons

- Stacks and Queues
  - LIFO vs FIFO
  - Applications
  - Pros and cons

- Trees
  - Binary trees
  - Traversing trees
  - Pros and cons

- Graphs
  - Types of graphs
  - Representing relationships
  - Pros and cons

- Choosing the Right Data Structure
  - Factors to consider
  - Impact on program performance

- Practice questions and exercises
  - Implementing data structures
  - Analyzing code snippets
  - Solving problems using data structures