CSE 212 – Programming with Data Structures
W10 Prove – Response Document

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Date:	November 19th, 2022
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<u>Question 1:</u> Provide the outline for the data structures tutorial you are creating for the final project. Use the Python Fundamentals Tutorial outline provided in the assignment instructions as an example.

- **I. Welcome**
  - **A. Introduction**
  - **B. Outline**
- **II. Queue**
  - **A. Introduction**
    - **1. Description**
    - **2. Visual Representation**
  - **B. Operations**
    - **1. Enqueue**
    - **2. Dequeue**
    - **3. Front**
    - **4. Rear**
  - **C. Implementation**
    - **1. List**
    - **2. collections.deque**
    - **3. queue.Queue**
  - **D. Example Problem #1**
  - **E. Example Problem #2**
  - **F. Problem To Solve**
- **III. Set**
  - **A. Introduction**
    - **1. Description**
      - **a) Unordered**
      - **b) Unchangeable**
      - **c) No Duplicates**
    - **2. Visual Representation**
  - **B. Operations**

1. Access Set
2. Add Set Item
3. Remove Set Item
4. Loop Sets
5. Join Sets
6. Set Methods

C. Example Problem #1
D. Example Problem #2
E. Problem To Solve

IV. Tree

A. introduction
1. Description
a) Data
b) Left Child Pointer
c) Right Child Pointer
2. Visual Representation

B. Operations
1. Insert Item
2. Remove Item
3. Search for Item
4. Traverse Tree
5. Find Height
6. Find Level
7. Find Size

C. Example Problem #1
D. Example Problem #2
E. Problem To Solve