

WEEK 1:- ENGINEERING CONCEPTS

Data Structures and Algorithms ---

Exercise 7: Financial Forecasting

Scenario:

You are developing a financial forecasting tool that predicts future values based on past data.

Steps:

1. **Understand Recursive Algorithms:**
 - Explain the concept of recursion and how it can simplify certain problems.
2. **Setup:**
 - Create a method to calculate the future value using a recursive approach.
3. **Implementation:**
 - Implement a recursive algorithm to predict future values based on past growth rates.
4. **Analysis:**
 - Discuss the time complexity of your recursive algorithm.
 - Explain how to optimize the recursive solution to avoid excessive computation.