**Exercise 7: Financial Forecasting**

**Scenario:**

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

* **Explain the concept of recursion and how it can simplify certain problems.**

**->**Recursion is a technique where a function calls itself to solve a problem by breaking it down into smaller, similar subproblems. It simplifies problems that have a recursive structure, like tree traversal or factorial computation, by reducing complex problems to simpler ones. Key aspects include a base case to stop recursion and a recursive case that reduces the problem size. While it can make code cleaner, deep recursion might cause stack overflow or performance issues.