**Exercise 7: Financial Forecasting**

**What is Recursion?**

In Java, Recursion is a process in which a function calls itself directly or indirectly is called recursion and the corresponding function is called a recursive function. Using a recursive algorithm, certain problems can be solved quite easily. A few Java recursion examples are Towers of Hanoi (TOH), Inorder/Preorder/Postorder Tree Traversals, DFS of Graph, etc.

**Example:**

Calculating compound future value is naturally recursive:

FutureValue(years) = FutureValue(years - 1) × (1 + growthRate)

* **Analysis**

**Time Complexity**

Each call goes one step down (n - 1) : T(n) = T(n - 1) + O(1)

Time Complexity = O(n)