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**Submitted:**

**A: Algorithm identification:**

**B1: Logical Comments:**

**B2: Development Environment:**

Hardware: Lenovo ThinkPad T480

A screenshot of a computer

Description automatically generated

Software:

Windows:

A screenshot of a phone

Description automatically generated

Visual Studio Code:

A screenshot of a computer code

Description automatically generated

Python:



**B3: Space Time and Big O:**

**B4: Scalability and Adaptability:**

**B5: Software Efficiency and Maintainability:**

**B6: Self Adjusting Data Structures:**

**C: Original Code:**

Code is fully a fully original implementation. Runs without errors.

**C1: Identification and Information:**

**C2: Process and Flow Comments:**

**D: Data Structures:**

**D1: Explanation of Data Structures:**

**E: Hash- Table:**

**F: Look-Up Function:**

**G: Interface:**

**G1: First Status Check:**

**G2: Second Status Check:**

**G3: Third Status Check:**

**H: Screenshots of Code Execution:**

**I1: Strengths of Chosen Algo:**

**I2: Verification of Algo:**

**I3: Other Possible Algos:**

**I3A: Algo Differences:**

**J: Different Approach:**

**K1: Verification of Data Structure:**

**K1A: Efficiency:**

**K1B: Overhead:**

**K1C: Implications:**

**K2: Other Data Structures:**

**K2A: Data Structure Differences:**

**L: Sources:**

**M: Professional Communication:**

Nothing to add. Thanks for reviewing my submission!