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Data Structures and Algorithms 2

1. Identify a named self-adjusting algorithm (e.g., “Nearest Neighbor algorithm,” “Greedy algorithm”) that you used to create your program to deliver the packages.

I implemented the Nearest Neighbor Algorithm to perform each of the deliveries.

B. Write an overview of your program, in which you do the following:

1.  Explain the algorithm’s logic using pseudocode.

Note: You may refer to the attached “Sample Core Algorithm Overview” to complete part B1.

2.  Describe the programming environment you used to create the Python application.

The program was developed in the Windows 10 operating system using Python 3, and the VS Code IDE.

3.  Evaluate the space-time complexity of each major segment of the program, and the entire program, using big-O notation.

4.  Explain the capability of your solution to scale and adapt to a growing number of packages.

5.  Discuss why the software is efficient and easy to maintain.

6.  Discuss the strengths and weaknesses of the self-adjusting data structures (e.g., the hash table).