

**Task5**

Hash map usage in python?

* **Data Retrieval**: Hash maps are ideal for scenarios where quick access to data based on unique identifiers (keys) is required
* **Caching:** Hash maps are often used in caching mechanisms to store frequently accessed data. By using a hash map
* **Counting and Frequency Analysis**: Hash maps are useful for counting occurrences of elements in a collection or analyzing the frequency distribution of items

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Graph traversal Algorithms?

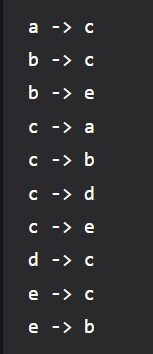
There are three types of Graph traversal Algorithms

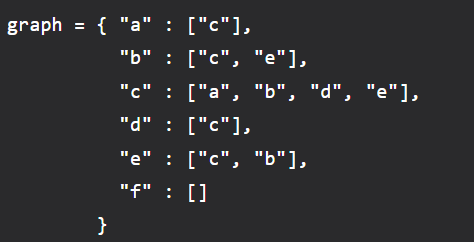
**(DFS)** is a recursive algorithm that starts at a given node and explores as far as possible along each branch before backtracking.

**)BFS(** uses a queue data structure to keep track of the nodes to be visited next. This algorithm guarantees that it will find the shortest path between two nodes in an unweighted graph.

**Dijkstra's** algorithm is a popular graph traversal algorithm used for finding the shortest path between two nodes in a weighted graph.

Implementation of graph in python



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