DATA STRUCTURES AND ITS APPLICATIONS (UE22CS252A)

Mini Project

Project Title & Team Members

Title : Enhancement of an ecommerce website

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SYNOPSIS

- We each designed 3 Features for our ecommerce website:
- Json parser : Parses the JSON database file and provides endpoints for the other components.
- Product Search using Prefix Trees.
- Recommendation system using graphs. The system suggests related product to the product of interest based on a given parameter.

ADT USED

- Autocomplete System: Implemented Trie to match closest search based on Prefix matching . ADTs used: insert, display, display_prefix.
- The insert function helps initializes the word inside the trie.
- Display , traverses the parent trie and its children then prints out the particular searched word
- Display_prefix , takes in a particular prefix , and prints out all the words with that prefix .

ADT USED

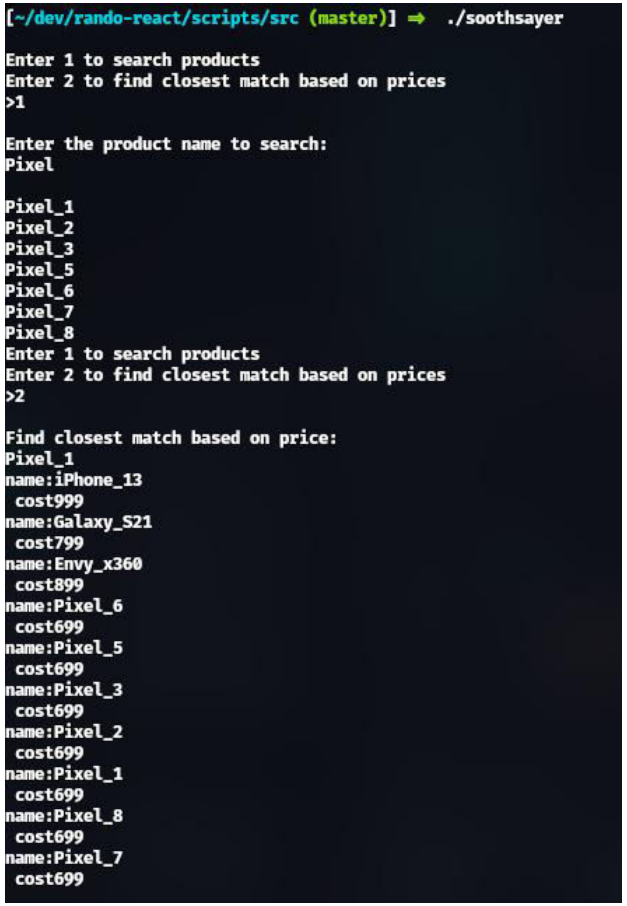
- **Recommendation System : The database is read using the json parser and made into a linked list for easy traversal, we use create node to make new nodes and update node function to update to linked list.**

- **We use array of pointers to represent the graph . According to cost of the interested node, the weight of the others are decided, and the closest ones are updated in the array.**

- **We then use the outdegree count to display related items to the interested one. Json Parser : It uses 2 stacks .It uses the pop and push ADT of stack .**

ADT USED

Output image:



Contribution of each Team Member

Narayan S: Json parser
Nikhil : Auto complete system
Nitheesh :recommendation system

Thank You