**Simple User and Product Management System**

**Overview**

This is a basic C program that helps manage user and product information. The program uses hash tables for organizing products and binary trees to keep track of what user browses. Everything is handled in a single main.c file for simplicity.

**Features**

User Management

* You can create new users, look up existing ones, and also update their details.

Product Management

* You can add products to the system, update them, or view the full list.
* Products are stored in a hash table, grouped by their category. This makes it easy to find related items and helps in easier recommendation to the users.
* The hash table uses separate chaining to handle the occurring of collisions.

Browsing History

* Each user has a browsing history stored as a binary search tree.
* Every time a user buys a product, it is added to their history bst.

Buying Products and Recommendations

* The program shows a list of all available products, and users can select which one to buy according to its respective id.
* When a product is purchased:
* It gets added to the user’s browsing history.
* The program recommends similar products based on their category.

**How It Works**

* Products: Stored in a hash table. Each category has its own linked list to make finding similar items easier.
* Browsing History: Stored in a binary tree for quick access and display.

**Execution Code**

1. Compile the program using a C compiler like gcc:

-> gcc main.c user.c product.c history.c recomendation.c -o shopping\_system

2. Run the compiled program:

-> ./shopping\_system