DATE :30 Oct

Activity No 4

SHOPPING DATABASE :

Research:

Database software is a program used to create, manage, and maintain databases by enabling users to store, organize, retrieve, and update data. It handles tasks like data entry, security, backup, and reporting, often through a graphical interface or a query language like SQL. This software is also known as a [database management system](https://www.google.com/search?sca_esv=0c9d9d2c0958ac4e&sxsrf=AE3TifMCvtRzadNS2iEsxDtr-9jsRR6NeA%3A1761799265613&q=database+management+system&sa=X&ved=2ahUKEwjQv5HbjcuQAxUUWHADHaqiGX0QxccNegQIHBAB&mstk=AUtExfAUPEiLsJyhMnlmacIoKe93cwYTeEB6MOu2UpJjtx1aU1arRqN0DwJKsx0BeqgmvznYTOEMtHw1l9QVXCt-EeI4GJ_BspIzyNYxg8kYtBBeCO9F4phtCrWTDAUx8EauTKBpOiwdvVnwMWH556WyUEjHjkjJ7UtGx4Y9_TVFf45G6l88HQ002o96TFS1kCjQ1mV5y1mwOS9uML7lOnTf8noSl2jiW-Z1_x2pYOIy4WPQiCTGvFwA1dWbgGSVcYn1OWF-2A9ntZ56IfLzSMqmjP5_&csui=3) (DBMS).

* [**Relational Databases**](https://www.google.com/search?sca_esv=0c9d9d2c0958ac4e&sxsrf=AE3TifMCvtRzadNS2iEsxDtr-9jsRR6NeA%3A1761799265613&q=Relational+Databases&sa=X&ved=2ahUKEwjQv5HbjcuQAxUUWHADHaqiGX0QxccNegUI9gEQAQ&mstk=AUtExfAUPEiLsJyhMnlmacIoKe93cwYTeEB6MOu2UpJjtx1aU1arRqN0DwJKsx0BeqgmvznYTOEMtHw1l9QVXCt-EeI4GJ_BspIzyNYxg8kYtBBeCO9F4phtCrWTDAUx8EauTKBpOiwdvVnwMWH556WyUEjHjkjJ7UtGx4Y9_TVFf45G6l88HQ002o96TFS1kCjQ1mV5y1mwOS9uML7lOnTf8noSl2jiW-Z1_x2pYOIy4WPQiCTGvFwA1dWbgGSVcYn1OWF-2A9ntZ56IfLzSMqmjP5_&csui=3) **(RDBMS):** Organize data in tables with rows and columns and use SQL for queries. Examples include [Oracle](https://www.oracle.com/in/database/what-is-database/), Microsoft SQL Server, and MySQL.
* [**NoSQL Databases**](https://www.google.com/search?sca_esv=0c9d9d2c0958ac4e&sxsrf=AE3TifMCvtRzadNS2iEsxDtr-9jsRR6NeA%3A1761799265613&q=NoSQL+Databases&sa=X&ved=2ahUKEwjQv5HbjcuQAxUUWHADHaqiGX0QxccNegUI_wEQAQ&mstk=AUtExfAUPEiLsJyhMnlmacIoKe93cwYTeEB6MOu2UpJjtx1aU1arRqN0DwJKsx0BeqgmvznYTOEMtHw1l9QVXCt-EeI4GJ_BspIzyNYxg8kYtBBeCO9F4phtCrWTDAUx8EauTKBpOiwdvVnwMWH556WyUEjHjkjJ7UtGx4Y9_TVFf45G6l88HQ002o96TFS1kCjQ1mV5y1mwOS9uML7lOnTf8noSl2jiW-Z1_x2pYOIy4WPQiCTGvFwA1dWbgGSVcYn1OWF-2A9ntZ56IfLzSMqmjP5_&csui=3)**:** Handle unstructured data and are designed for different data models, such as key-value pairs. Examples include MongoDB and Cassandra.
* [**In-memory databases**](https://www.google.com/search?sca_esv=0c9d9d2c0958ac4e&sxsrf=AE3TifMCvtRzadNS2iEsxDtr-9jsRR6NeA%3A1761799265613&q=In-memory+databases&sa=X&ved=2ahUKEwjQv5HbjcuQAxUUWHADHaqiGX0QxccNegUI9QEQAQ&mstk=AUtExfAUPEiLsJyhMnlmacIoKe93cwYTeEB6MOu2UpJjtx1aU1arRqN0DwJKsx0BeqgmvznYTOEMtHw1l9QVXCt-EeI4GJ_BspIzyNYxg8kYtBBeCO9F4phtCrWTDAUx8EauTKBpOiwdvVnwMWH556WyUEjHjkjJ7UtGx4Y9_TVFf45G6l88HQ002o96TFS1kCjQ1mV5y1mwOS9uML7lOnTf8noSl2jiW-Z1_x2pYOIy4WPQiCTGvFwA1dWbgGSVcYn1OWF-2A9ntZ56IfLzSMqmjP5_&csui=3)**:** Store data in the computer's main memory for faster access. SAP HANA is an example.

**Shopping cart software can be generally categorized into three** [**types of E-commerce**](https://en.wikipedia.org/wiki/Types_of_E-commerce) **software:**

**Open source software**: The software is released under an [open source licence](https://en.wikipedia.org/wiki/Open_source_licence) and is very often free of charge. The merchant has to host the software with a [Web hosting service](https://en.wikipedia.org/wiki/Web_hosting_service). It allows users to access and modify the source code of the entire online store.

**Licensed software**: The software is downloaded and then installed on a [web server](https://en.wikipedia.org/wiki/Web_server). This is most often associated with a one-time fee, the main advantages of this option are that the merchant owns a license and therefore can host it on any web server that meets the server requirements.

**Hosted service**: The software is never downloaded, but rather is provided by a [hosted service provider](https://en.wikipedia.org/wiki/Hosted_service_provider) and is generally paid for on a monthly or annual basis; also known as the [application service provider](https://en.wikipedia.org/wiki/Application_service_provider) (ASP) software model. Some of these services also charge a percentage of sales in addition to the monthly fee. This model often has predefined templates (often known as themes) that a user can choose from to customize the look and feel of their website. Predefined templates limit how much users can modify or customize depending on what platform the template is used on. Some platforms like Shopify, BigCommerce or ShopWired allow users to edit the individual files that their template is made from, often using a templating language to render dynamic content (such as Shopify's Liquid or Twig). Hosted services offer the advantage of having the vendor continuously keep the software up to date for [security patches](https://en.wikipedia.org/wiki/Security_patch) as well as adding new features.

REFERENCES:

* https://[www.wikipedi](http://www.wikipedia)a.com
* https://[www.quora.com](http://www.quora.com)
* <https://www.webopedia.com>
* <https://www.shopware.com>

Analysis:

Several key components make up an ecommerce database. All of them play an equally important role, so let’s take a look at what they are.

### **1 Product catalog management**

This component consists of all the information related to products offered by your store for sale. More specifically, it includes essential information such as names, descriptions, categories, images, and inventory levels. It helps you keep track of all the products and makes inventory management easier. Organizing this data is crucial to avoid losses due to lost or damaged products. According to ZipDo, poor data management practices can reduce a company’s operational efficiency by 21%.

### **2 Order processing and fulfillment**

This segment of your database handles the entire product lifecycle, from sitting on the shelf to order processing and fulfillment. To this end, it keeps track of orders placed, items to be delivered, inventory levels (in real-time), invoice generation, delivery logistics, and payment confirmation. It streamlines the ordering and delivery process, avoids mistakes, keeps operations flowing, and boosts customer satisfaction.

### **3 User management**

User management is also essential because it handles sensitive information about customers who visit and use your website. It encompasses data about the user ranging from basic details like their name, email, passwords, payment options, and preferences. User management could get “messy” at times, as it deals with their personal information, so securing this information with encryption is a must, preferably through 128-bit.

Popular database software includes relational databases like Oracle, MySQL, Microsoft SQL Server, and PostgreSQL, and NoSQL databases like MongoDB and Redis. Other options include cloud-based solutions like Amazon Aurora and Snowflake, as well as tools for specific use cases like Elasticsearch for search and analytics.

Ideate

* Start
* Input
* Enter the customer details such as customer name and phone number
* Print the customer details given by the customer
* Declare an integer variable a in which the price is store and int n
* The value of n is read using scanf
* Using loop

1] for loop used to store the price

2]for loop is used to display the price in sequence

3]for loop is used to store prices in Descending order and sum

* Display Total amount
* End

In this way, using c programming we can store prices and also it sorted by using array in descending order. So that if customer want to eliminate any items it could be eliminated by them.

Build :

#include <stdio.h>

int main() {

printf("\n--------------------------------------------------- \n");

printf("\n-------------------BILL-----------------------------\n");

printf("\n--------------------------------------------------- \n");

char customerName[20];

printf("Enter the name of customer:");

scanf ("%s",& customerName);

printf("customerName:%s\n",customerName);

printf("\n--------------------------------------------------- \n");

int A[50],n,i,j ,temp,sum=0;

printf( "Enter the no of items you bought :");

scanf("%d",&n);

printf("\n--------------------------------------------------- \n");

for (i=0;i<n;i++){

printf("\nEnter the price of item %d:",i+1);

scanf("%d",&A[i]);}

printf("\n--------------------------------------------------- \n");

for(i=0;i<n;i++){

printf("\nthe price %d item is :%d",i+1,A[i]);

}

printf("\n--------------------------------------------------- \n");

for(i=0;i<n;i++){

for (j=i+1;j<n;j++){

if (A[i]<A[j]){

temp=A[i];

A[i]=A[j];

A[j]=temp;

}

}

}

printf("\n--------------------------------------------------- \n");

printf("\nThe price of item in descending order\n ");

for(i=0;i<n;i++){

printf("\nThe price of item%dis %d\n",i+1,A[i]);

sum=sum+A[i];

}

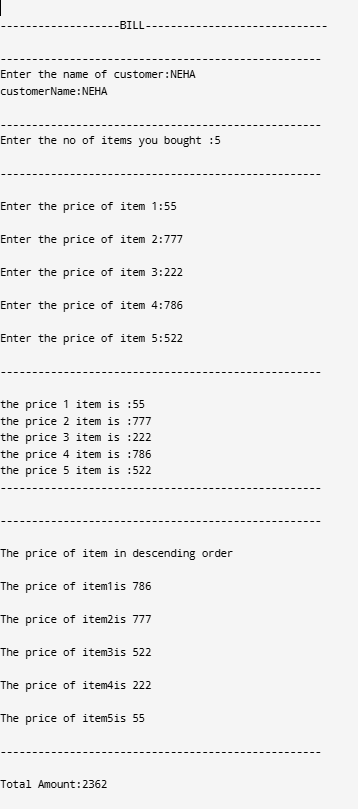
printf("\n--------------------------------------------------- \n");

printf("\nTotal Amount:%d",sum);

return 0;

}

TESTING :



IMPLEMENTATION :