Project Documentation

Online Store DBMS

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1. Abstract

Online Shopping is designed for online retailers. The purpose of this system is to make it interactive and easy to use. It will facilitate search, viewing and product selection. Contains complex searches for user search engines for products specific to their needs. The search engine provides a simple and easy way to search for products where the user can search for a product collaboratively and the search engine will filter the available products according to the user's input. The user can view the full details of each product. They can also review product reviews and write their own reviews. The app provides a drag and drop feature so the user can add a product to the shopping cart by dragging the item to the shopping cart. The main emphasis is on providing a friendly search engine that effectively shows the results you want and its drag and drop behavior.

2. Introduction

2.1 Purpose

Shopping has long been considered a hobby by many. Buying online is not. The goal of this app is to improve the online web interface vendors. The program will be easy to use and therefore create a shopping experience fun for users. The goal of this application: The purpose of a database is to help your business stay organized and keep information easily accessible, so that you can use it. But it isn't a magic solution to all your data concerns. First, you need to collect and input the data into a database. A primary goal of a database system is to retrieve information from and store new information into the database.

2.2 Platform Specifications – Deployment

Hardware specification

Processor P IV

RAM 250 MB

Minimum Space Required With 100 MB

Show 16 small colors

Software Specification 1.4.2

Workplace Win 2000 / XP / 2007/08 / 8.1 / 10

Platform. Net Frame & SSMS

Website SQL Server 2005

3. Problem Statement

The problem of this system is the data security, performance, data safety, resource utilization and high availability which is very difficult to achieve in a system like Online Stores System.

4. Solution

We will try to achieve the above challenges to succeed in the creation of the system. Considering these five challenges and solutions is a helpful guide to choosing the right database your company needs to succeed. With databases being the core software resource your business depends on, it is a decision you need to get right the first time around.

4.1 Data security

Today's database must come with security that's easy to set up, quick to notify users if something is wrong and protects both data at rest and in transit. Given the critical nature of losing access to your data, or worse, having the data at the hands of a (nefarious) 3rd party, delayed detection is not an option. The decision should really be either using the database's built-in security, sticking with what your organization is already using, or reinforcing your application with both.

4.2 Performance

Databases have always faced harsh performance criteria. The amount of data you are taking in may be expanding, but to satisfy your users you need to process it faster, without making them jump through hoops to get there. Superior performance involves deployment with good default, being able to recognize an operational environment and adjusting

automatically and getting to a place where good performance doesn't necessitate a full-time babysitter. A database must be built for high-performance, regardless of the hardware. If a database performs well on older machines, and smaller machines like Raspberry Pis, it has good "native" performance.

4.3. Data safety

Data needs to be processed in a way that ensures nothing is lost. Even in a nonrelational database or in a distributed cluster, there must be ACID guarantees both across the database and throughout the cluster. The challenge for fully-transactional databases is performance. ACID costs time. A good database is one that can give you both superior performance and transactional guarantees.

4.4 Resource utilization

It used to be assumed databases would run on the best hardware available and they behaved accordingly. Today, with the prevalence of containers and VM deployment, that isn't the case. To keep up performance in the face of limited computing power and handle larger amounts of more complex data, a database must get 100 percent out of the resources it is working on for every nanosecond it is running.

4.5 High availability

In a single server database, if your server goes down, your organization goes down. A data cluster consisting of several servers working together gives you multiple levels of backup. For e-commerce, it is similar to installing extra cash registers to handle a growing line of people. A distributed database also has assignment failover so when a node performing a specific task goes down, that task is automatically transferred to a working node. Writing a transaction to a local disk is a lot faster than having to shuffle it across a distributed network. A good database takes that into consideration and creates innovative solutions to maintain your performance along with guaranteeing always on availability.

5. Tool Used

SQL Server Management Studio (SSMS) is used in the making of this system.

6. Pros and Cons:

6.1 Pros

1. Improved data sharing:

DBMS helps create an environment where end users have better access to many better managed data.

2. Improved data security:

When more users receive information, there is a greater risk of data security violations Companies invest a lot of time, effort, and money to ensure that corporate data is used efficiently.

3. Better data integration:

Wide access to well-managed data promotes an integrated view of organizational activities and a clear view of the big picture.

4. Minor data inconsistencies:

Data incompatibility is found when different types of the same data come from different locations.

5. Improved data access:

DBMS makes it possible to generate quick answers to ad questions.

DBMS returns the answer (called set query results) in the application. For example, end users

6. Improved decision making:

Data acquisition, combined with tools that transform data into usable data, enables end users to make quick, informed decisions that can make the difference between success and failure in the global economy.

6.2 Cons

1. Additional costs:

Database programs require sophisticated Hardware and software and highly skilled staff.

2. Complex management:

Database systems interface with many different technologies and has a significant impact on the company's resources and culture.

3. Savings:

To maximize the efficiency of the database system, you need to keep your system running.

Therefore, you should do several updates and apply the latest clips and security measures to all components. Because database technology is rapidly evolving, the cost of staff training is often significant. Vendor trust.
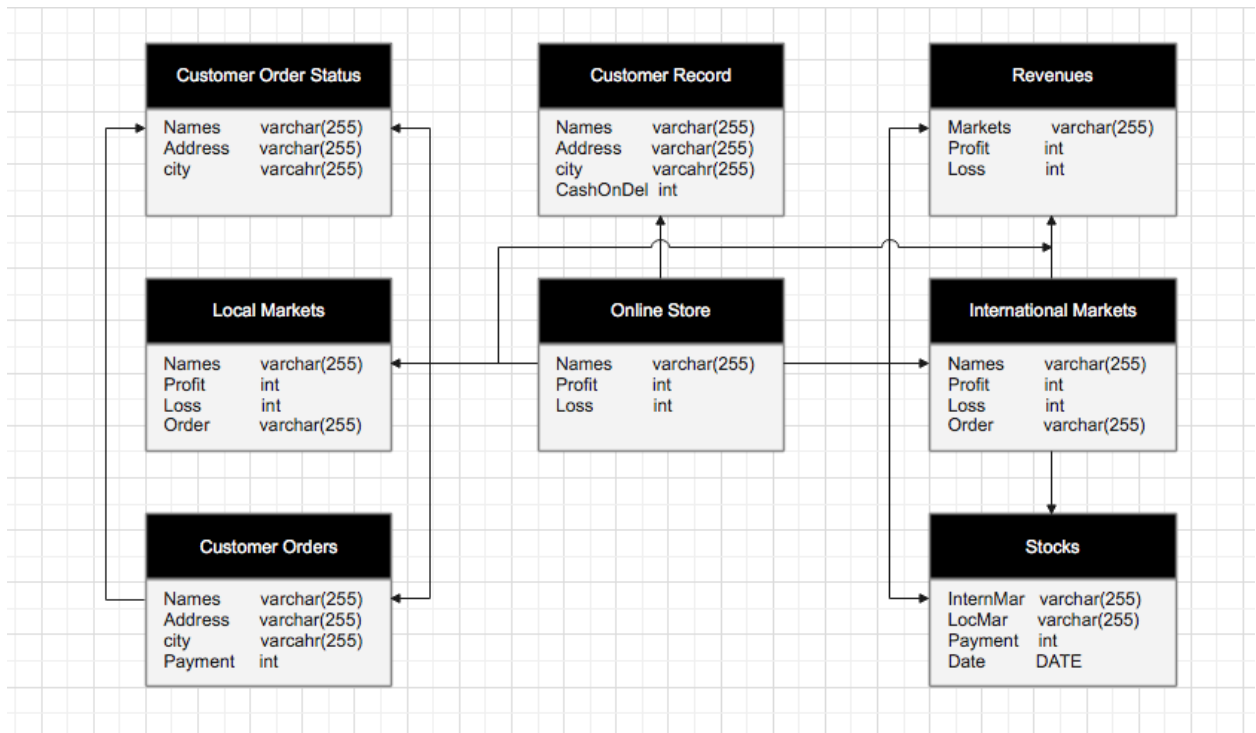
4. Frequent renewal / replacement cycles:

DBMS vendors often improve their products by adding new functionality. Such new features often come bundled with new versions of software development. Some of these changes require hardware upgrades.
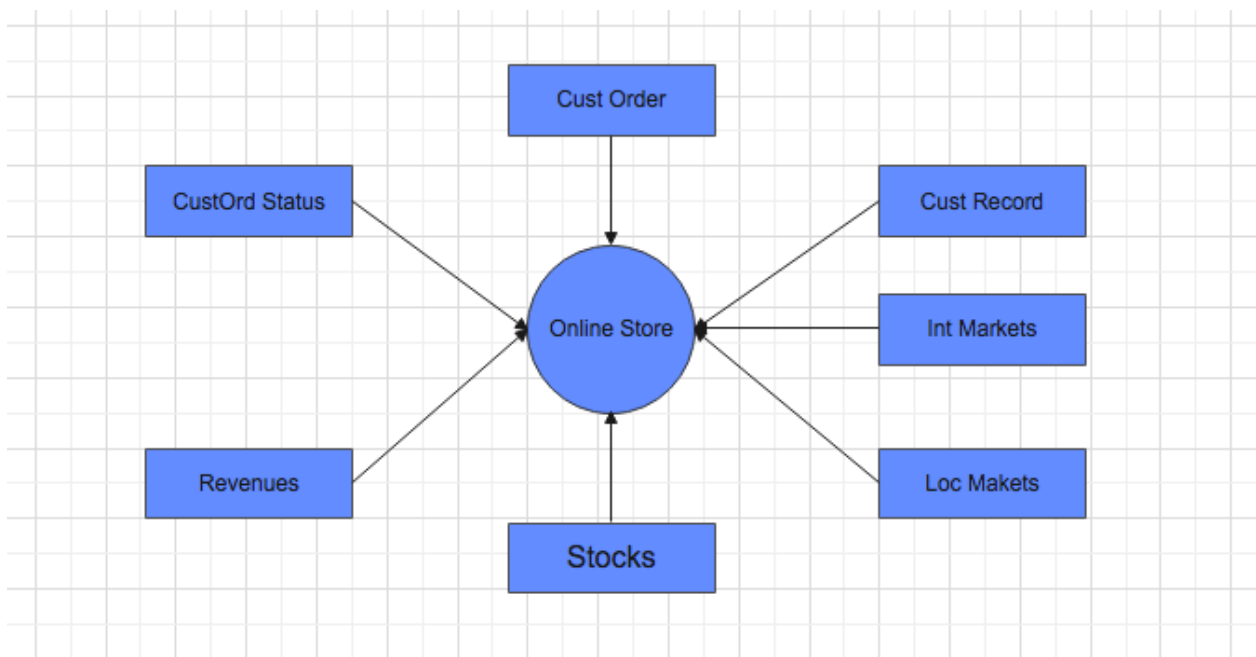
7. ERD Of Online Store
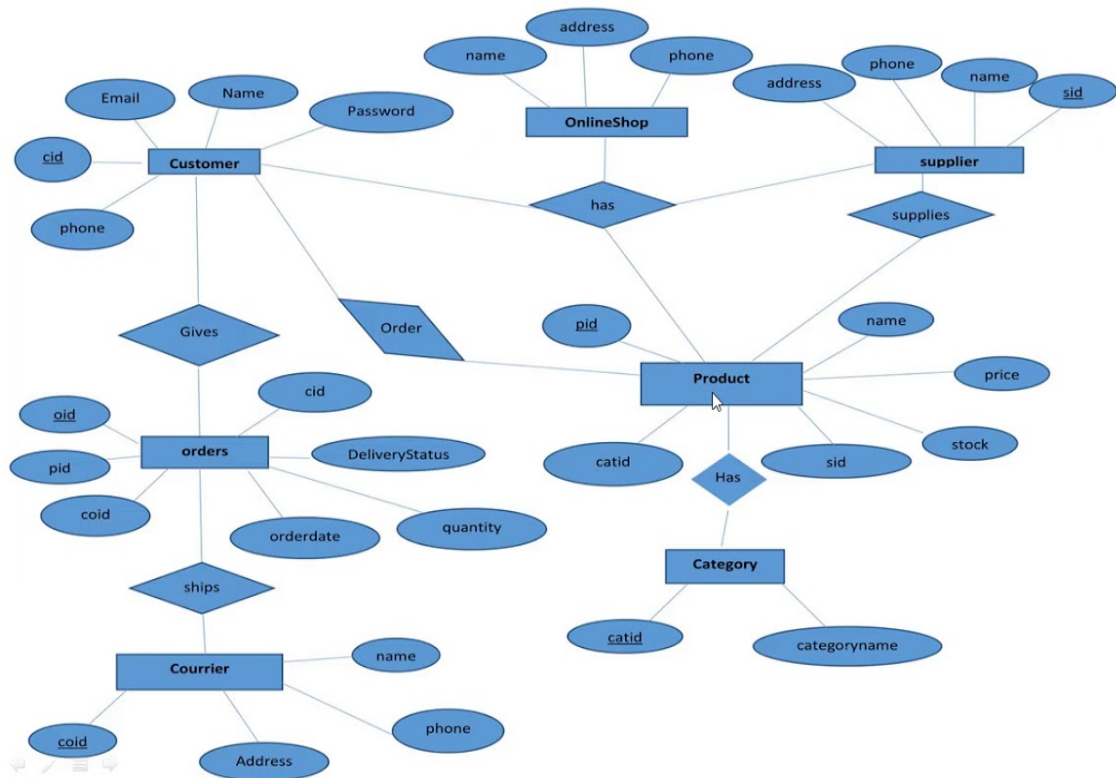
8. Structure of Project

9. Flow Diagram

10. Limitations

The limitations of this online Store Databases are:

1. No internet connections = no access

2. Cost of extra storage
3. Very difficult to handle because of complex databases.
4. Requires a fast internet connection
5. Requires a best operating system and hardware support.

11.   Timeline

Week 1-3: Database and tables created.

Week 4-6: Data is inserted in the tables.

Week 7-9: Will create Front end on MS Access.

Week 10-12: Will connect database with MS Access. (Connection of Front end with Back end.

Week 13-14: Will make presentation slides and present the project to course instructor Ma'am Kiran Amjad and Ma'am Fouzia Sami Ullah.

12.   Conclusion

After reading in detail about online purchases, We can see a big change in the file human behavior for many managers as their attitude, buying pattern in the past people were buying by hand but now as time is running out, people have become busy and as a result technology introduced a new revolution which means online shopping.

When we started the study, it turned out that a group of young people were people e.g. 15-30 use of online shopping options time and energy But the middle class is not very selective because it has flaws the idea that by seeing the product one can find the right goods and some people do not choose to use plastic money which means debit cards.

But online shopping has a bright future but to be successful it is necessary spread awareness of its benefits.

In this way by creating the databases in this way, we can achieve more data security, performance, data safety, resource utilization and high availability of data.