CAR Showroom Management System

Table of Contents

ABSTRACT

This is a live project which was developed for a local CAR Agent. It is useful to the Agent to maintain the Customers details, Sales Details, Company items and services and also CAR Details

CAR Recognition System, which will cover the following modules

The agent will enter the CAR No It will help the user to search the CAR details and the required details of the customer .The agent enters the customer details and maintain company details.

Regarding the registration module, it contains the information about newly joined User details like name of the user, password etc. CAR Details module contains the details like the Name of the CAR, send from, send to etc. Billing and Payment Detail will contain the details like Actual Amount to be paid, EMI. Searching is having the details of the customer. Any agent will login and search the details of the customer it will show all details like customer Details, CAR name, payment type etc.

This **"CAR Showroom Management System"** project mainly contains the CAR information. The CAR is purchased that CAR amount will be cleared or not. It will clear then its ok. Other wise the agent will search the details of the customer and recover the loan.

Hardware Requirements:-

- Core 2 duo or above (Processor).
- 2 GB Ram
- 512 MB Cache Memory
- Hard disk 1 GB
- Microsoft Compatible 101 or more Key Board

<u>Software Requirements</u>: -

- **Operating System :**   Windowss

- **Front-End**:   MS Access

Existing System

In competitive business organization the ability to efficiently align resources and business activities with strategic objectives can mean the difference between succeeding and just surviving. To achieve strategic alignment, organization are increasingly managing their activities and processes as projects-in essence, projecting their business to monitor performance more closely and make better business decision above their overall work portfolio.

By planning and tracking projects with clarity and precession, organizations can respond with greater ability to the demands of fast changing business environment. Making strategic goals or reality requires technology that is robust enough to support your core business and yet flexible enough to accommodate your existing processes. The "CAR SHOWROOM MANAGEMENT SOFTWARE" is one of the existing tools that are helpful for car showroom management. The primary purposes of any such tools are to improve productivity, reduce cycle time, decreases costs by increasing quality

Proposed System

The existing tools do not consider all the factors that affect a project directly. The entire process is built upon using just one or two parameters which do not give us complete and desired results. So we need a system where we can deliver the correct results that would ultimately lead to a position where the overall cost and time will be consolidated. . No specific training is required for the distributors to use this application. They can easily use the tool that decreases manual hours spending for normal things and hence increases the performance. It is very easy to record the information of online sales and purchases in the databases.

INPUT DESIGN

Input design is the process of converting user-oriented input to a computer based format. Input design is a part of overall system design, which requires very careful attention .Often the collection of input data is the most expensive part of the system. The main objectives of the input design are …

1. Produce cost effective method of input

2. Achieve highest possible level of accuracy

3. Ensure that the input is acceptable to and understood by the staff.

OUTPUT DESIGN

Outputs from computer systems are required primarily to communicate the results of processing to users. They are also used to provide a permanent copy of these result for latter consultation .Computer output is the most important and direct source of information to the users. Designing computer output should proceed in an organized well through out the manner. The right output must be available for the people who find the system easy o use. The outputs have been defined during the logical design stage. If not, they should defined at

the beginning of the output designing terms of types of output connect, format, response etc,

4.2 FEATURES OF SQL DATA BASE

INTRODUCTION TO SQL   Server

Sql Server is comprehensive operating environment that packs h power of mainframe relation database management system into user's microcomputer. It provides a set of functional program that user can use as tools to build structures and perform tasks. Because applications are developed on Sql Server are completely portable to the other versions of the programmer can create a complex application in a single user, environment and then move it to a multi-user platform. Users do not have

to be an expert to appreciate Sql Server but the better user understands the program, the more productively and creatively he can use the tools it provides.

Relational Database Management System

- ⬚ Sql Server the right tool
- ⬚ Sql Server gives you High Capacity
- ⬚ Database management tools
- ⬚ Structure of Sql Server Database

Sql Server database can be describe at two different levels

- ⬚ Physical Structure
- ⬚ Logical Structure

Physical Structure:

a) One or more data files
b) Two or more log files
c) One control file

Logical Structure

a) Table spaces
b) Segments
c) Extents
d) Data Blocks

The data files contain all user data in terms of tables, index and views. The log files contain the information to open and be recovered, of undone after a transaction (Rollback).

The control file physical data, media information to open and manage data files. If the control file is damaged the server will not be able to open or use the database even if the database is undamaged.

DATABASE

The conventional data processing approach is to develop a program (or many programs) for each application. This result in one or more data files for each application. Some of the data may be common between files. However one application may require the file to be organized on a particular field, while other application may require the file to be organized on another field. A major drawback of the conventional method is that the storage access methods are built in to the program. Therefore, though the same data may be required by two applications, the data will have to be sorted in two different places because each application depends on the way that the data stored.

There are various drawbacks of conventional data file processing environment.
Some of them are listed below:

Data Redundancy:
Some data elements like name, address, identification code, are used in various applications. Since data is required by multiple applications, it is stored in multiple data files. In most cases, there is a repetition of data. This is referred to as data redundancy, and leads to various other problems.

Data Integrity Problems:

Data redundancy is one reason for the problem of data integrity. Since the same data is stored in different places, it is inevitable that some inconsistency will creep in.

Data Availability Constraints:

When data is scattered in different files, the availability of information from a combination of files is constrained to some extent.

Database Management System
A database management system (DBMS) consists of a collection of interrelated data and a set of programs to access the data. The collection of data is usually referred to as the database. A Database system is designed to maintain large volumes of data. Management of data involves:

- ▯   Defining the structures for the storage of data

- ▯   Providing the mechanisms for the manipulation of the data

- ▯   Providing for the security of the data against unauthorized access

Users of the DBMS:

Broadly, there are three types of DBMS users:

- ▯   The application programmer

- ▯   The end user

- ▯   The database administrator (DBA)

   The application programmer writes application programs that use the database. These programs operate on the data in the database. These operations include retrieving information, inserting data, deleting or changing data.

   The end user interacts with the system either by invoking an application program or by writing their queries in a database query language. The database query language allows the end user to perform all the basic operations (retrieval, deletion, insertion and updating) on the data.

   The DBA has to coordinate the functions of collecting information about the data to be stored, designing and maintaining the database and its security. The database must be designed and maintained to provide the right information at the right time to authorized people. These responsibilities belong to the DBA and his staff.

ADVANTAGES OF A DBMS

The major advantage that the database approach has over the conventional approach is that a database system provides centralized control of data. Most benefits accrue from this notion of centralized control.

REDUNDANCY CAN BE CONTROLLED

Unlike the conventional approach, each application does not have to maintain its own data files. Centralized control of data by the DBA avoids unnecessary duplication of data and effectively reduces the total amount of data storage required. It also eliminates the extra processing necessary to trace the required data in a large mass of data present. Any redundancies that exist in the DBMS are controlled and the system ensures that these multiple copies are consistent.

INCONSISTENCY CAN BE AVOIDED

Since redundancy is reduced, inconsistency can also be avoided to some extent. The DBMS guarantee and that the database is never inconsistent, by ensuring that a change made to *any entry automatically applies to the other entries as well. The process is known as propagating update.*

THE DATA CAN BE SHARED

A database allows the sharing of data under its control by any number of application program or users. Sharing of data does not merely imply that existing applications can share the data in the database, it also means that new applications can be developed to operate using the same database.

STANDARDS CAN BE ENFORCED

Since there is centralized control of data, the database administrator can ensure that standards are maintained in the representation of the stored data formats. This is particularly useful for data interchange, or migration of data between two systems.

SECURITY RESTRICTIONS CAN BE APPLIED

The DBMS guarantees that only authorized persons can access the database. The DBA defines the security checks to be carried out. Different checks can be applied to different operations on the same data. For instance, a person may have the access rights to query on a file, but may not have the right to delete or update that file. The DBMS allows such security checks to be established for each piece of data in the database.

INTEGRITY CAN BE MAINTAINED

Centralized control can also ensure that adequate checks are incorporated in the DBMS to provide data integrity. Data integrity means that the data contain in the database is both accurate and consistent. Inconsistency between two entries can lead to integrity problems. However, even if there is no redundancy, the data can still be inconsistent. For example a student may have enrolled in 10 courses in a semester when the maximum number of courses one can enroll in is 7. Another example could be that of a student enrolling in a course that is not being offered that semester. Such problems can

be avoided in a DBMS by establishing certain integrity checks to be carried out

whenever any update operation is done. These checks can be specified at the database

level, besides the application programs.

DATA INDEPENDENCE

In non-database systems, the requirement of the application dictates the way in which the data is stored and the access techniques. Besides, the knowledge of the organization of the data, the access techniques are built into the logic and code of the application. These systems are data dependent. Consider this example, suppose the university has an application that processes the student file. For performance reason, the file is indexed on the roll number. The application would be aware of the existing index, and the internal structure of the application would be built around this knowledge. Now consider that the some reason, the file is to index on the registration data. In this case it is impossible to change the structure of the stored data without affecting the application too. Such an application is a data dependent one.

It is desirable to have data independent applications. Suppose two applications X and Y need to access the same file. However both the applications require a particular field to be stored in different formats. Application X requires the field "customer balance" to be stored in decimal format, while the application Y requires it to be stored in binary format. This would pose a problem in an old system. In a DBMS differences may exist in the way that data is actually stored, and the way that it is seen and used by a given application.

FEATURES OF RDBMS:

- ⬚ The ability to create multiple relations and enter data into them
- ⬚ An interactive query language
- ⬚ Retrieval of information stored in more than one table

NORMALIZATION
Normalization is a process of simplifying the relationship between data elements in a record. It is the transformation of complex data stores to a set of smaller, stable data structures.

Normalized data structures are simpler, more stable and are easier to maintain. Normalization can therefore be defined as a process of simplifying the relationship between data elements in a record.

Purpose For Normalization:
Normalization is carried out for the following four reasons:

⬚ To structure the data so that there is no repetition of data, this helps in saving space.

⬚ To permit simple retrieval of data in response to query and report requests.

⬚ To simplify the maintenance of the data through updates, insertions and deletions.

⬚ To reduce the need to restructure or reorganize data when new application requirements arise.

Testing :

Testing is a process of executing a program with the indent of finding an error. Testing is a crucial element of software quality assurance and presents ultimate review of specification, design and coding.

System Testing is an important phase. Testing represents an interesting anomaly for the software. Thus a series of testing are performed for the proposed system before the system is ready for user acceptance testing.

A good test case is one that has a high probability of finding an as undiscovered error. A successful test is one that uncovers an as undiscovered error.

Testing Objectives:

1. Testing is a process of executing a program with the intent of finding an error
2. A good test case is one that has a probability of finding an as yet undiscovered error
3. A successful test is one that uncovers an undiscovered error

Testing Principles:

• All tests should be traceable to end user requirements

• Tests should be planned long before testing begins

• Testing should begin on a small scale and progress towards testing in large

- Exhaustive testing is not possible
- To be most effective testing should be conducted by a independent third party

The primary objective for test case design is to derive a set of tests that has the highest livelihood for uncovering defects in software. To accomplish this objective two different categories of test case design techniques are used. They are ▯ White box testing.

▯ Black box testing.

White-box testing:

White box testing focus on the program control structure. Test cases are derived to ensure that all statements in the program have been executed at least once during testing and that all logical conditions have been executed.

Block-box testing:

Black box testing is designed to validate functional requirements without regard to the internal workings of a program. Black box testing mainly focuses on the information domain of the software, deriving test cases by partitioning input and output in a manner that provides through test coverage. Incorrect and missing functions, interface errors, errors in data structures, error in functional logic are the errors falling in this category.

Testing strategies:

A strategy for software testing must accommodate low-level tests that are necessary to verify that all small source code segment has been correctly implemented as well as high-level tests that validate major system functions against customer requirements.

Testing fundamentals:

Testing is a process of executing program with the intent of finding error. A good test case is one that has high probability of finding an undiscovered error. If testing is conducted successfully it uncovers the errors in the software. Testing cannot show the absence of defects, it can only show that software defects present.

Testing Information flow:

Information flow for testing flows the pattern. Two class of input provided to test the process. The software configuration includes a software requirements specification, a design specification and source code.

Test configuration includes test plan and test cases and test tools. Tests are conducted and all the results are evaluated. That is test results are compared with expected results. When erroneous data are uncovered, an error is implied and debugging commences.

Unit testing:

Unit testing is essential for the verification of the code produced during the coding phase and hence the goal is to test the internal logic of the modules. Using the detailed design description as a guide, important paths are tested to uncover errors with in the boundary of the modules. These tests were carried out during the programming stage itself. All units of ViennaSQL were successfully tested.

Integration testing :

Integration testing focuses on unit tested modules and build the program structure that is dictated by the design phase. System testing:

System testing tests the integration of each module in the system. It also tests to find discrepancies between the system and it's original objective, current specification and system documentation. The primary concern is the compatibility of individual modules. Entire system is working properly or not will be tested here, and specified path ODBC connection will correct or not, and giving output or not are tested here these verifications and validations are done by giving input values to the system and by comparing with expected output. Top-down testing implementing here.

Acceptance Testing:

This testing is done to verify the readiness of the system for the implementation. Acceptance testing begins when the system is complete. Its purpose is to provide the end user with the confidence that the system is ready for use. It involves planning and execution of functional tests, performance tests and stress tests in order to demonstrate that the implemented system satisfies its requirements.

Tools to special importance during acceptance testing include:

Test coverage Analyzer – records the control paths followed for each test case.

Timing Analyzer – also called a profiler, reports the time spent in various regions of the code are areas to concentrate on to improve system performance.

Coding standards – static analyzers and standard checkers are used to inspect code for deviations from standards and guidelines.

Test Cases:

Test cases are derived to ensure that all statements in the program have been executed at least once during testing and that all logical conditions have been executed.
Using White-Box testing methods, the software engineer can drive test cases that

- Guarantee that logical decisions on their true and false sides.
- Exercise all logical decisions on their true and false sides.
- Execute all loops at their boundaries and with in their operational bounds.
- Exercise internal data structure to assure their validity.

The test case specification for system testing has to be submitted for review before system testing commences.

CONCLUSION:

The package was designed in such a way that future modifications can be done easily. The following conclusions can be deduced from the development of the project.

- ⬜ Automation of the entire system improves the efficiency
- ⬜ It provides a friendly graphical user interface which proves to be better when compared to the existing system.
- ⬜ It gives appropriate access to the authorized users depending on their permissions.
- ⬜ It effectively overcomes the delay in communications.
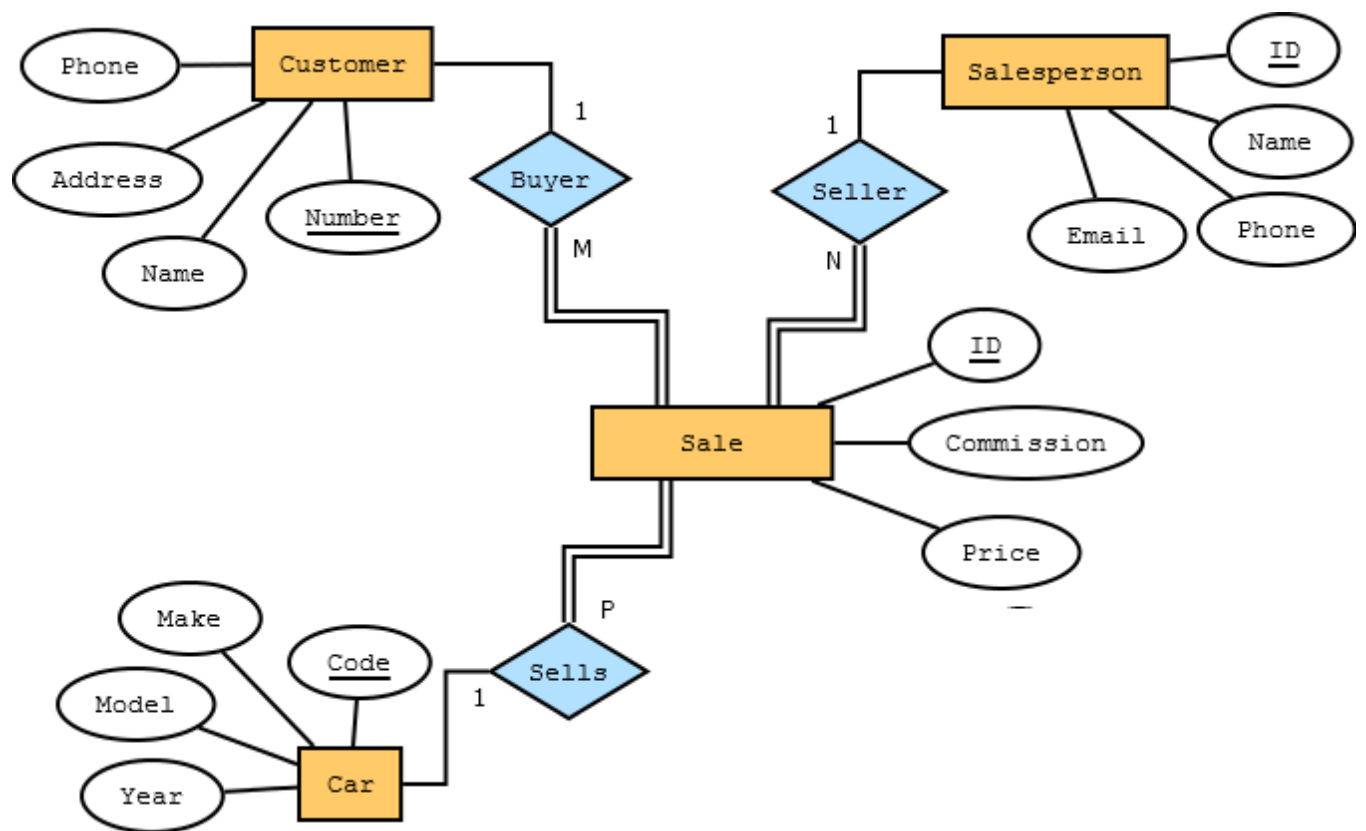- ⬜ Updating of information becomes so easier.

- System security, data security and reliability are the striking features.
- The System has adequate scope for modification in future if it is necessary.

FUTURE ENHANCEMENTS:

This application avoids the manual work and the problems concern with it. It is an easy way to obtain the information regarding the various products information that are present in the Super markets.

Well I and my team members have worked hard in order to present an improved website better than the existing one's regarding the information about the various activities. Still ,we found out that the project can be done in a better way. Primarily, when we request information about a particular product it just shows the company, product id, product name and no. of quantities available. So, after getting the information we can get access to the product company website just by a click on the product name .

The next enhancement that we can add the searching option. We can directly search to the particular product company from this site .These are the two enhancements that we could think of at present

Er Diagram

Screenshots: