CHAPTER 1

INTRODUCTION

1.1 Introduction To The Project

This Courier Management System Project will have different modules. The login section will have a log in facility for the admin and for the user who will operate this system. While taking orders from its customers, it will take all the details of its customers who are placing the orders and all the details for the recipient such as their address, name, and, mobile number. During the billing process system will generate a tracking id for their products. Through this tracking id, customers or its recipient will able to track their products from any location using the internet. It will provide the status of the product after placing orders within 1 minute.

The courier service is one of the solutions of these problems. It is used to send some things to any person in the world within time. The courier company has number of branches, which are spread over the country or the world. So that when person wants to send things then he has to contact at nearest courier service branch. The courier company creates the schedule & gives internal/external services. The courier service work as destination office or source office.

In modern age, as time increase, needs & requirements of the person are also increased. They want more facility & try to do their task quickly & within time. But they cannot get all the things at nearest market or area, so they have to import the things from any place in the world. Within the country, the things can be imported through post service. But it consumes the time & sometimes problem of damage or missing occur. Where as in the international market, the one way is shipping. But it also requires more time.

1.2 OBJECTIVE:

To gain maximum business region, customer demands good service. So to make more profits and gain maximum business region, their administration must also have a system to tackle all these problems on time. Its administration can take immediate orders and provide a receipt which will include all the details of the products along with appropriate price to their customers. Thus saving time and eliminating line making process.

1.3 Features of Purposed System:

These are the important features of the project Courier Management System:

- In computer system of the courier service computation of the rate is easily & quickly done.
- Computer system of the courier service provide fast access.
- Using this computerized system, bill issued procedure becomes fast.
- In computer system the person has to fill the various forms & number of copies of the forms can be easily generated at a time.
- In computer system, it is not necessary to create the Manifest but we can directly print it, which saves our time.
- It contain better storage capacity.
- Accuracy in work.
- Easy & fast retrieval of information.
- Well designed reports.
- Decrease the load of the person involve in existing manual system.
- Access of any information individually.
- Work becomes very speedy and easy to update information

1.4 Traditional File System

File System is collection of data. In this system, user has to write procedures for managing database. It provides details of data representation and storage of data. In this –

- Data is stored in files.
- Each file has specific format.
- Programs that use these files depend on knowledge about that format.
- In earlier days, database applications were built on top of file systems.

Basically, it is a collection of application programs that performs services for end users such as production of reports. Each file defines and manages its own data.

1.4.1 Pros And Cons Of Traditional Approach

Pros:

- File Processing cost less and can be faster than Database.
- File Processing design approach was well suited to mainframe hardware and batch input.
- Companies mainly use file processing to handle large volumes of structured data on a regular basis.
- It can be more efficient and cost effective in many cases.
- Design is simple.
- Customization is easy.

Cons:

- Data Redundancy and Inconsistency.
- Difficulty in accessing data.
- Data Isolation – Multiple files and formats.
- Integrity problems
- Unauthorized Access is not restricted.
- It Co-Ordinates only physical access.

1.5 Introduction To DBMS

Databases and database technology have had a major impact on the growing use of computers. A database is a collection of related data. By data, we mean known facts that can be recorded and that have implicit meaning. For example, consider the names, telephone numbers, and addresses of the people you know. Nowadays, this data is typically stored in mobile phones, which have their own simple database software. In other words, a database has some source from which data is derived, some degree of interaction with events in the real world, and an audience that is actively interested in its contents. A database can be of any size and complexity. For example, the list of names and addresses referred to earlier may consist of only a few

hundred records, each with a simple structure. On the other hand, the computerized catalogue of a large library may contain half a million entries organized under different categories.

A database has the following implicit properties:

- A database represents some aspect of the real world, sometimes called the mini world or the universe of discourse. Changes to the mini world are reflected in the database.
- A database is a logically coherent collection of data with some inherent meaning. A random assortment of data cannot correctly be referred to as a database.
- A database is designed, built, and populated with data for a specific purpose. It has an intended group of users and some preconceived applications in which these users are interested.

A database management system (DBMS) is a computerized system that enables users to create and maintain a database. The DBMS is a general-purpose software system that facilitates the processes of defining, constructing, manipulating, and sharing databases among various users and applications. Defining a database involves specifying the data types, structures, and constraints of the data to be stored in the database. The database definition or descriptive information is also stored by the DBMS in the form of a database catalogue or dictionary; it is called meta-data. Constructing the database is the process of storing the data on some storage medium that is controlled by the DBMS. Manipulating a database includes functions such as querying the database to retrieve specific data, updating the database to reflect changes in the mini world, and generating reports from the data. Sharing a database allows multiple users and programs to access the database simultaneously.

1.5.1Advantages Of DBMS

Compared to the File Based Data Management System, Database Management System has many advantages.

1.Reducing Data Redundancy

The file-based data management systems contained multiple files that were stored in many different locations in a system or even across multiple systems. Because of this, there were sometimes multiple copies of the same file which led to data redundancy.

This is prevented in a database as there is a single database and any change in it is reflected immediately. Because of this, there is no chance of encountering duplicate data.

2.Data Integrity

Data integrity means that the data is accurate and consistent in the database. Data Integrity is very important as there are multiple databases in a DBMS. All of these databases contain data that is visible to multiple users. So, it is necessary to ensure that the data is correct and consistent in all the databases and for all the users.

3.Data Security

Data Security is vital concept in a database. Only authorized users should be allowed to access the database and their identity should be authenticated using a username and password. Unauthorized users should not be allowed to access the database under any circumstances as it violates the integrity constraints.

4.Privacy

The privacy rule in a database means only the authorized users can access a database according to its privacy constraints. There are levels of database access and a user can only view the data he is allowed to. For example - In social networking sites, access constraints are different for different accounts a user may want to access.

5.Backup and Recovery

Database Management System automatically takes care of backup and recovery. The users don't need to backup data periodically because this is taken care of by the DBMS. Moreover, it also restores the database after a crash or system failure to its previous condition.

6.Data Consistency

Data consistency is ensured in a database because there is no data redundancy. All data appears consistently across the database and the data is same for all the users viewing the database. Moreover, any changes made to the database are immediately reflected to all the users and there is no data inconsistency.