# Introduction

## Introduction to DBMS and SQL

A **database-management system** (DBMS) is a collection of interrelated data and a set of programs to access those data. This is a collection of related data with an implicit meaning and hence is a **database.** The collection of data, usually referred to as the database, contains information relevant to an enterprise. The **primary goal** of a **DBMS** is to provide a way to store and **retrieve database** information that is both **convenient** and **efficient**. 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

Database systems are designed to manage large bodies of information. Management of data involves both defining structures for storage of information and providing mechanisms for the manipulation of information. In addition, the database system must ensure the safety of the information stored, despite system crashes or attempts at unauthorized access. If data are to be shared among several users, the system must avoid possible anomalous results.

Existing DBMS provide various functions that allow management of a database and its data which can be classified into four main functional groups:

* **Data definition** – Creation, modification and removal of definitions that define the organization of the data.
* **Update** – Insertion, modification, and deletion of the actual data.
* **Retrieval** – Providing information in a form directly usable or for further processing by other applications. The retrieved data may be made available in a form basically the same as it is stored in the database or in a new form obtained by altering or combining existing data from the database.
* **Administration** – Registering and monitoring users, enforcing data security, monitoring performance, maintaining data integrity, dealing with concurrency control, and recovering information that has been corrupted by some event such as an unexpected system failure.

## Some of the Most Important SQL Commands

* **SELECT** - extracts data from a database
* **UPDATE** - updates data in a database
* **DELETE** - deletes data from a database
* **INSERT INTO** - inserts new data into a database
* **CREATE DATABASE** - creates a new database
* **ALTER DATABASE** - modifies a database
* **CREATE TABLE** - creates a new table
* **ALTER TABLE** - modifies a table.

## Problem Statement

The problem occurred before having computerized system are file lost due to misplace and other reasons and lose of files due to natural events and difficult in searching and maintaining multiple records and manual records leads to physical space consumption and all the above factors leads to cost consumption of managing records.

## Aim and Objective

Main aim in developing Blood Bank management System is to computerize the manual process of adding a given patient info and employee info. So that we can get an instantaneous information about what we require and easily accessible.

* Build a computerized Blood Bank Management System database.
* Provide login facilities.
* Add and remove data from database.
* Provide security to doctor portal.
* Eliminate all the drawbacks of existing system in new system

## Report Outline

The Blood Bank Management System consist of how we have computerized the record keeping system of agency and has been explained in forms of chapters in the project report. And some of the chapters in the report are:

1. **Introduction**:

It deals with introduction to DBMS and SQL and some of important aspect sql statements and problem statement, aim and objective and finally report outline.

1. **Software Requirement Specification:**

It deals with how we have to setup the experiment and what all are the software and hardware requirement of the software application in detail.

1. **System Design Analysis:**

It deals the design aspect of the project and it also shows how we have designed the system in form of UML diagrams like ER Diagram, Schema Diagram and Data flow diagrams.

1. **Implementation:**

It deals with the aspect how we have implemented the system design into modules and it also gives us an idea of sample code used in the designing the system.

1. **Output Snapshots**

It gives us the graphical view of each and every module we have used in the project and also possible output samples.