**Name : Hetvi Bathani Subject : DBMS LAB**

**Class : AIA-3 Batch : B**

**Roll No : 2213684**

# ASSIGNMENT NO: 01

**AIM** : Design sample database, draw ER diagram and Study of MySQL Database Management System.

**INDEX TERMS**: Database Management System, ER Data Model, MySQL

1. Design sample database, draw ER diagram and Study of MySQL Database Management System.
   1. Draw an ER diagram for the following application from the hospital:
      * A doctor has one or more patients to treat
      * Each doctor has an unique Doctor ID
      * Each patient has a name, phone number, address and date of birth
      * Patient entity is a weak entity
      * Age is a derived attribute

## ER Diagram:

Patient\_ID

Name

Phone

Address

DOB

Patient

Doctor

Doctor\_ID

Color

Supplies

Name

Supplier

Attribute

Parts

Part Number

* 1. Draw an ER diagram for the following application from the manufacturing industry:
     + Each supplier has a unique name.
     + More than one supplier can be located in the same city.
     + Each part has a unique part number.
     + Each part has a colour.
     + A supplier can supply more than one part.
     + A part can be supplied by more than one supplier.

## ER Diagram:

* 1. Draw an ER diagram for the following application from the ABC Company:
     + Employees work for many projects and each project has many employees
     + Each employee has an unique Emp\_No
     + Each employee has a name and name consists of first name, middle name and last name
     + Each project has an unique number and name

## ER Diagram:

Name

Name

Works

Project Number

Projects

Emp\_No

Employee

**FAQs:**

1. What are the advantages of DBMS over a traditional file system? Ans) These advantages include:
   * Data integrity, security, and consistency
   * Reduction of data redundancy
   * Improved data access, sharing, and integration
   * Less space consumption
   * Backup and recovery process
   * Specialized features that help provide shielding to its data
   * Different multiple user interfaces like graphical user interface and application program interface
   * Easy maintenance due to its centralized nature
2. Explain in the terms table and record in a database.

Ans) Table refers to data arranged in rows and columns. A spreadsheet, for example, is a table. In relational database management systems, all information is stored in the form of tables.

Records are composed of fields, each of which contains one item of information. A set of records constitutes a file. For example, a personnel file might contain records that have three fields: a name field, an address field, and a phone number field

1. Find out databases used for following applications.
2. Twitter : Manhattan
3. Facebook : TAO
4. Amazon / Flipkart : Oracle, MySQL, PostgreSQL, MongoDB
5. AADHAR Card: UIDAI

# Conclusion:

Purpose of this assignment is fulfilled by understanding ER Data Model, Relational Databases and MySQL Database Management Systems.