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SUBJECT	DBMS
EXPERIMENT NO :	1
AIM:	To define a problem statement and create an ER diagram for the database.
PROBLEM STATEMENT 1:	To design and implement a comprehensive database management system that effectively handles the operations of a **Blood Bank Management System**. The system will manage blood donations, donors, recipients, blood banks, and staff (doctors and blood managers), ensuring efficiency, reliability, and ease of use.
THEORY:	**Database** : A database is a structured collection of data stored electronically, organized for efficient retrieval, management, and manipulation. **ER diagram** (Entity-Relationship diagram): visually maps out entities, their attributes, and relationships in a database. The **Blood Bank Management System** ER diagram illustrates the relationships between various entities involved in managing blood donations, storage, and distribution. **Entities and Relationships:** • **Donor**: Donates blood and has personal details like name, contact, email, and blood group. A doctor examines the donor before donation to check health status. • **Doctor**: Performs health examinations on donors and has attributes like name, specialization, and contact. • **Blood**: The donated blood is stored, with attributes such as blood group, expiry date, quantity, and inventory status. • **Blood Bank**: Stores the blood and is managed by a blood manager. It has details like location, operating hours, and inventory status.

	• **Recipient (Donee)**: Receives blood based on requests. Personal details and health status are also stored. **Relationships:** • **Donates**: Donors donate blood. • **Examines**: Doctors examine donors. • **Stores**: Blood is stored in blood banks. • **Receives**: Recipients request and receive blood. • **Manages**: Blood managers oversee the blood banks. This system enables efficient tracking of blood donations, storage, and distribution, ensuring a smooth workflow from donors to recipients.
CASE STUDY STATEME NT :	Develop a robust and comprehensive relational database system to manage and streamline blood donations, inventory, donor, and recipient information. This system should ensure accuracy, real-time tracking, and efficient management of blood storage and distribution, improving operational efficiency and saving lives.
ER DIAGRAM	**BLOOD BANK MANAGEMENT SYSTEM**

Blood Bank Management System
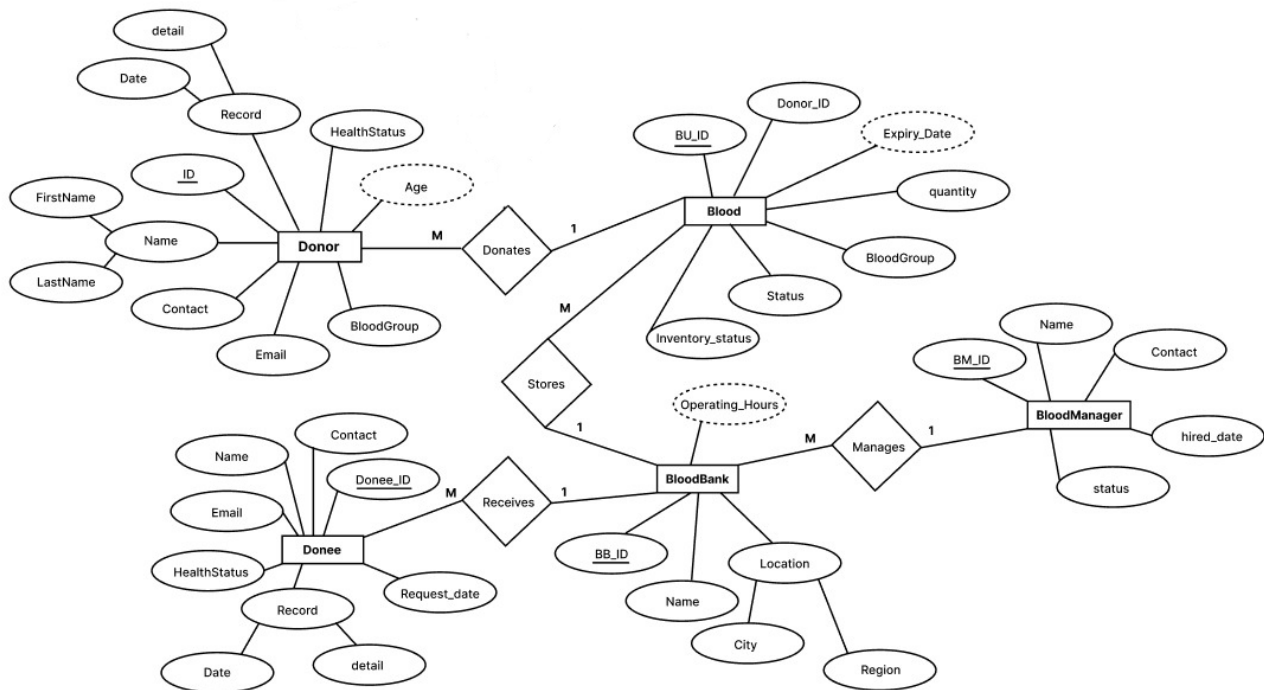
CONCLUSION: Through this experiment, we learned how to visually represent and organize different attributes and their relationships within an ER diagram, enhancing our understanding of how data entities interact and contribute to the overall database structure.