My project is about human resource management

Human resource management (HRM) is the strategic and coherent approach to the effective and efficient management of people in a company or organization such that they help their business gain a competitive advantage. It is designed to maximize employee performance in service of an employer's strategic objectives. Human resource management is primarily concerned with the management of people within organizations, focusing on policies and systems. HR departments are responsible for overseeing employee-benefits design, employee recruitment, training and development, performance appraisal, and reward management, such as managing pay and employee benefits systems. HR also concerns itself with organizational change and industrial relations, or the balancing of organizational practices with requirements arising from collective bargaining and governmental laws.

Step 1: Identify the Attributes and Primary key for each Entity

1. Employees : employee_id(primary key), Name, Address, Gender, Dob, hire_date, salary, position_id(foreign key), dept_id.

2. Departments : dept_id(primary key), Name, num_of_employee, hod, Location.

3. Projects : Project_id(primary key), name, num_of_employee, location

4. Dependents : D_no, Gender, relationship.

5. Positions :position_id (Primary Key), title, description

Step 2: Identify the Relationship

Entities have some relationships with each other. Relationships define how entities are associated with each other.

Let's Establishing Relationships between them are:

1. Employee works in Departments

2. Employee(manager) manages Department

3. Employee works on project

4. Department controls Projects

5. Employee has dependents

6. Employee holds position

Step 3: Identify the Cardinality Ratio and Participation

1. Employee-Department

Relationship: Many-to-One

Many employee works in one Department but one employee can not work in many departments.

2. Employee(manager)-Department

Relationship: one-to-one

Employee works under the manager of the Department and the manager records the date of joining of employee in the department.

3. Employee-Project

Relationship: Many-to-Many

Many employee works on several projects and the number of hours worked by the employee on a single project is recorded.

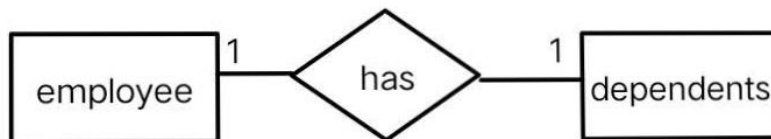4. Department-project

Relationship: one-to-Many

One department has many projects but one project can not come under many departments.

5. Employee-Dependent

Relationship: one-to-one

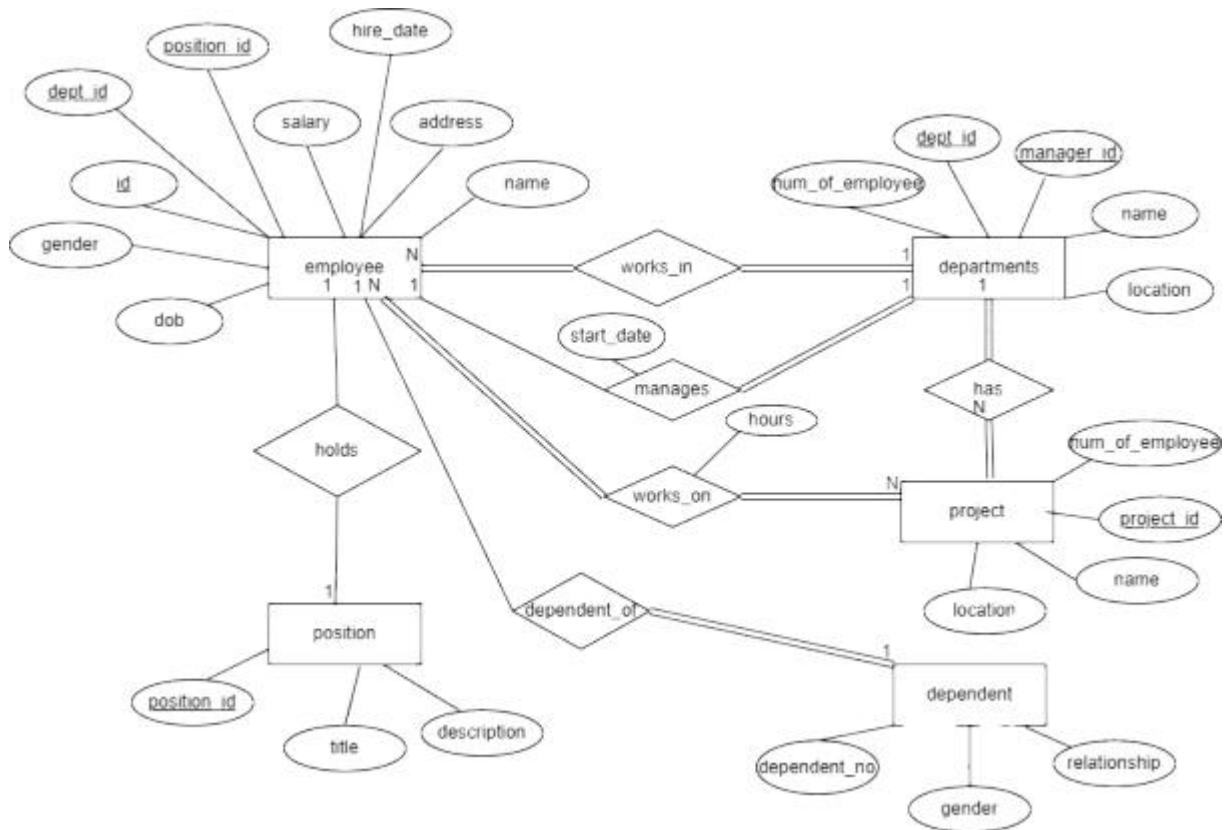Each Employee has dependents. Each dependent is dependent of only one employee.

6. Employee-Position

Relationship: one-to-One

An Employee can have one Position at a time and a Position is held by one Employee.

Step 4: ER Diagram Representation

ERD to table:

1. Employee(id, Name, Address, Gender, Dob, hire_date, salary, position_id, dept_id.

2. Departments : dept_id, Name, num_of_employee, manager_id, Location.

3. Projects : Project_id, name, num_of_employee, location

4. Dependents : D_no, Gender, employee_id

5. Positions :position_id, title, description

6. works_on (id, hours, start_date, employee_id, Project_id.