Hands-on Exercise 1: Employee and Project Management System

Business Rules

Entities: Bold
Attributes: Underline
Relationships

A **Company** has a name, phone number, and address.

Each **Department** has a unique Department ID, a Name, and a Budget.

A **Company** can have multiple **Departments**, and each **Department** belongs to one **Company**.

An **Employee** has a unique Employee ID, a Name, Age, Gender, and Job Title.

Each **Department** is managed by one **Employee**, and an **Employee** can manage only one **Department**.

Each **Employee** works in one **Department**, and a **Department** can employ many **Employees**.

Each **Project** has a unique Project ID, a Name, a Start Date, and an End Date.

An **Employee** can be assigned to multiple **Projects**, and a **Project** can have multiple **Employees** working on it.

Each **Employee–Project** assignment specifies a Role describing the employee's responsibility in that project.

Each **Employee** must be assigned to at least one **Project**.

Supervisors are also **Employees**.

A **Supervisor** can supervise multiple **Employees**, but each **Employee** can have at most one **Supervisor**.

The **company** records **Education information** for **employees**, including <u>Degree Name</u>, <u>Institution</u>, and <u>Graduation Year.</u>

An **Employee** can have multiple **Education** records, and each **Education** record belongs to one **Employee**.