Software house company

Description

Design a database for a software house company that its business includes making software projects for the clients that order projects to be built.
The company has several teams with one manager for each, each team controls several projects, every employee inside the team has one or more devices to work on, employees work on projects that are assigned to their team/s and tracking their hours of work in every project.

صمم قاعدة بيانات لشركة برمجيات تعمل في إنشاء مشاريع برمجية للعملاء الذين يطلبون بناء المشاريع
لدى الشركة عدة فرق مع مدير واحد لكل فريق، يتحكم كل فريق في عدة مشاريع ، ولكل موظف داخل الفريق جهاز واحد أو أكثر للعمل عليه ، ويعمل الموظفون في المشاريع التي تم تعيينها لفريقهم / فرقهم ويتتبعون ساعات عملهم في كل مشروع

Entities:

1. Client
2. Project
3. Team
4. Employee
5. Device
6. Country

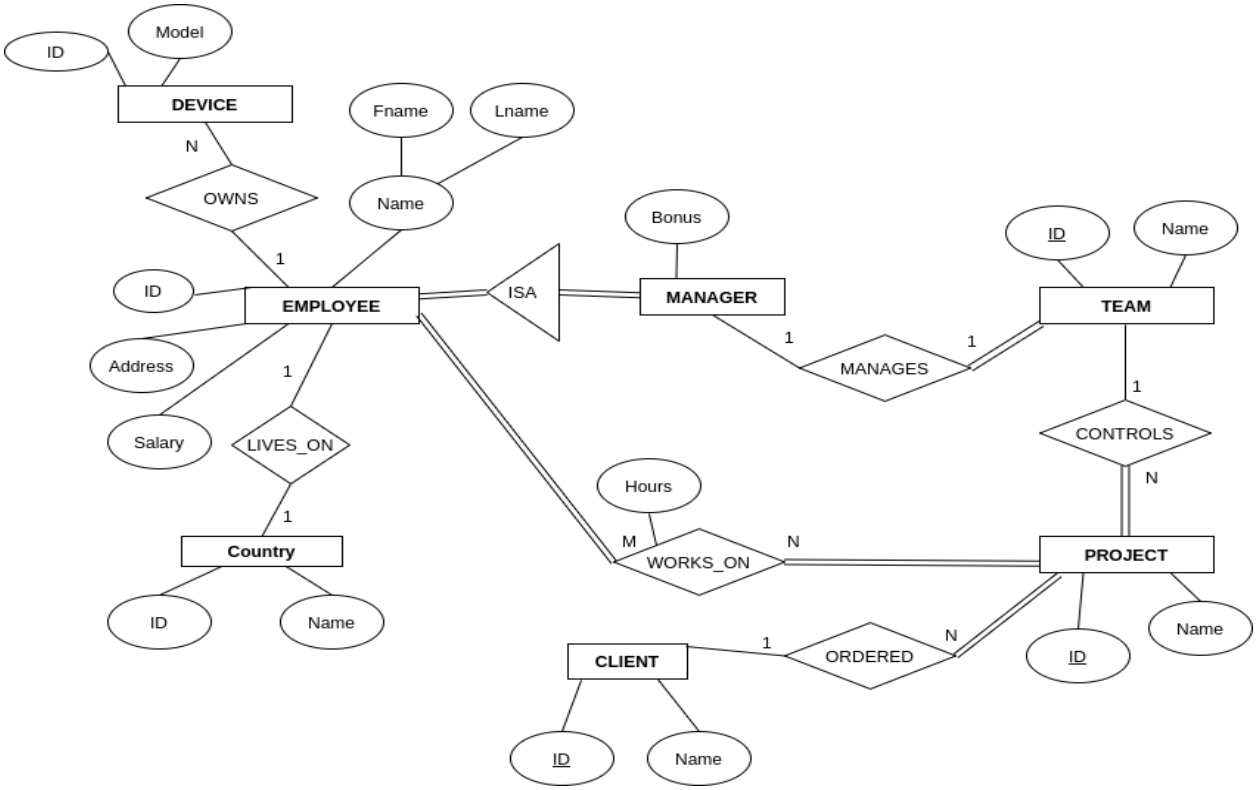
Relationships:

1. **Team** has relationship with **Project** (one to many)
2. **Client** has relationship with **Project** (one to many)
3. **Manager** has relationship with **Team** (one to one)
4. **Employee** has relationship with **Device** (one to many)
5. **Employee** has relationship with **Project** (many to many)
6. **Employee** has relationship with **Country** (one to one)
7. **Manager** has relationship with **Employee** (one to one)

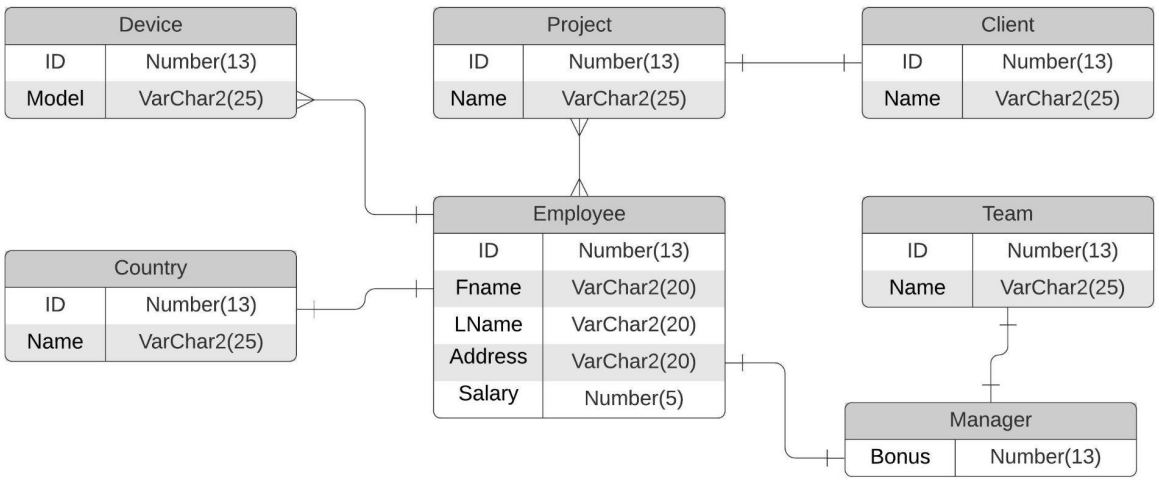
Tables:

1. Client (ID, Name)
2. Project (ID, Name, Team_id, Client_id)
3. Team (ID, Name)
4. Employee (ID, Fname, Lname, Address, Salary, Country_id)
5. Employee_Project (Project_id, Emp_id, Hours)
6. Device (ID, Model, Emp_id)
7. Country (ID, Name)
8. Manager (Bonus, Emp_id)

ER Diagram:



UML:



Data Dictionary:

1. Employee

Attribute Name	Data type	Description	PK	FK	Reference
ID	Number(13)	Client id	✔		
FName	VarChar2(10)	Employee first name			
LName	VarChar2(10)	Employee last name			
Address	VarChar2(15)	Employee address			
Salary	Number(5)	Employee salary			
Country_id	Number(13)	County forign key		✔	Country

2. Client

Attribute Name	Data type	Description	PK	FK	Reference
ID	Number(13)	Client id	✔		
Name	VarChar2(20)	Client name			

3. Country

Attribute Name	Data type	Description	PK	FK	Reference
ID	Number(13)	Country id	✔		
Name	VarChar2(20)	Country name			

4. Manager

Attribute Name	Data type	Description	PK	FK	Reference
Bonus	Number(6)	Country id	✔		
Emp_id	Number(13)	Employee id		✔	Employee

5. Device

Attribute Name	Data type	Description	PK	FK	Reference
ID	Number(13)	Device id	✔		
Model	VarChar2(20)	Device model			
Emp_id	Number(13)	Employee id		✔	Employee

6. Team

Attribute Name	Data type	Description	PK	FK	Reference
ID	Number(13)	Team id	✔		
Name	VarChar2(20)	Team name			

7. Project

Attribute Name	Data type	Description	PK	FK	Reference
ID	Number(13)	Project id	✔		
Name	VarChar2(20)	Project name			
Team_id	Number(13)	Team id		✔	Team
Client_id	Number(13)	Client id		✔	Client

8. Employee_project

Attribute Name	Data type	Description	PK	FK	Reference
Project_id	Number(13)	Project id		✔	Project
Emp_id	Number(13)	Employee id		✔	Employee
Hours	Number(5)	Work hours			