Consider an employee information management system.

An employee will be working only in a single department. But in one department there can be more than one employee. There is no such department in which an employee is not working. There is no such employee who is not working in a department. For an employee: employee no. , employee name, employee address is required to be stored. For a department: department no, department name and department location is required to be stored.

An employee is either an Hourly employee, Salaried Employee or a consultant employee. For hourly employee: Hourly Rate is required. For Salaried employee: Monthly Salary is required. For a consultant: Billing Rate is required.

Each employee is assigned one or more than one projects only if he/she is working in a department. A project may be assigned to more than one employee. There is no such employee who is not working on a project. There is no such project which is not assigned to an employee. For a project: project no, title and duration of project is required. We are also required to store Project Assignment Date and Project Assignment Status.

A project may be a development project, research project and educational project. For a research project: research grant is required to be stored. For a development project: funding organization is required. For an educational project: Education institute name is required.

Organization has a Library. The library contains one or more than one books. Each book is only in single library. There is no such library in which there does not exist any book. There is no such book which does not exist in library. For library: location, start time and end time is required to be stored.

An employee may get one or more than one books issued. A book is issued to only one employee at a time. There may be some employees who do not get books to be issued. There are some books which are not issued to any employee. For a book: book no, title, authors, publisher and edition is required to be stored. We also need to store Issue Date, Due Date, and Fine Amount for books which are issued to employees.

A book is either an IT related book, Management related book or Humanities related book. For IT related books: Tools supported is required to be stored. For Management related books: Organizational Cased Studies is required to be stored. For Humanities related books: Art type is required to be stored.