

ENTITY

ATTRIBUTES

Client	<ul style="list-style-type: none"><li>ClientID (primary key)</li><li>FirstName</li><li>LastName</li><li>Email</li><li>Phone</li><li>Address</li></ul>
Employee	<ul style="list-style-type: none"><li>EmployeeID (PK)</li><li>FirstName</li><li>LastName</li><li>Email</li><li>Phone</li><li>Address</li><li>HireDate</li><li>Salary</li></ul>
Project	<ul style="list-style-type: none"><li>ProjectID (PK)</li><li>Title</li><li>Description</li><li>StartDate</li><li>EndDate</li><li>ClientID (FK)</li></ul>
Payment	<ul style="list-style-type: none"><li>PaymentID (PK)</li><li>ContractID (FK)</li><li>Amount</li><li>PaymentDate</li></ul>
Task	<ul style="list-style-type: none"><li>TaskID (PK)</li><li>Description</li><li>StartDate</li><li>EndDate</li><li>ProjectID (FK)</li><li>EmployeeID (FK)</li></ul>
Service	<ul style="list-style-type: none"><li>ServiceID (PK)</li><li>Name</li><li>Description</li></ul>
Contract	<ul style="list-style-type: none"><li>ContractID (PK)</li><li>ServiceID (FK)</li><li>ClientID (FK)</li><li>EmployeeID (FK)</li><li>StartDate</li><li>EndDate</li><li>Terms and Conditions</li></ul>

# DETAILS

## Description

This schema is designed to capture the data associated with a software house. It includes entities for clients, employees, projects, tasks, services, contracts, and payments. The attributes for each entity are designed to capture the relevant information about that entity

## Limitations

This schema is a simplified representation of a software house. It does not include all of the data that might be relevant to a real-world software house. For example, it does not include data about the software development process, such as requirements, design, and testing. The schema does not track expenses associated with each contract or project. The schema assumes that each task has a single employee assigned to it.

## Observations

This schema could be extended to include additional entities, such as expenses or vendors. The schema could be optimized for performance by using appropriate indexing and query optimization techniques. The schema could be implemented using a variety of database management systems, including MySQL, PostgreSQL, or Microsoft SQL Server. The schema could be secured using appropriate access control and authentication mechanisms.

## Assumptions

This schema makes a number of assumptions about the software house that it is modelling. For example, it assumes that the software house has a fixed set of clients, employees, projects, tasks, services, contracts, and payments. It also assumes that the software house uses a specific software development process.