Legal Management System Group 1



Relational Model

MC212: Database Management Systems



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Technology

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1 | Final ER Diagram

We have attached Final ER Diagram as a separate .png file in submission is Google Classroom.

2 | Relational Model

User

- <u>ID</u> (Composite Key):
 - $\hfill\Box$ User Type Identifier: String
 - □ <u>User Number Identifier:</u> Integer
- Password: String

Client

- <u>ID</u> (Composite Key) (Foreign Key References **User**):
 - \square User Type Identifier: String
 - \square <u>User Number Identifier:</u> Integer
- Name: String
- Client Type: String
- Client Details Link: String

Lawyers

- ID (Composite Key) (Foreign Key References **User**):
 - □ User Type Identifier: String
 - □ <u>User Number Identifier:</u> *Integer*
- Name: String
- Email ID: String
- License Year: Date
- Experience: *Integer*
- **Education**: String
- Area of Expertise: String
- Firm ID (Composite Key) (Foreign Key References **Firm**):
 - □ User Type Identifier: String
 - □ User Number Identifier: *Integer*

Firm

- <u>Firm ID</u> (Composite Key):
 - \square User Type Identifier: String
 - □ <u>User Number Identifier:</u> Integer
- Establishment Year: *Date*
- Firm Name: String



Case

■ Case ID: Integer ■ Case Result: String ■ Case Type: String ■ Judge ID (Composite Key) (Foreign Key References **Judge**): □ User Type Identifier: String □ User Number Identifier: *Integer* ■ Case Status: String Case Details Link: String ■ Defending Lawyer ID (Composite Key) (Foreign Key References **Lawyer**): □ User Type Identifier: String \square User Number Identifier: Integer ■ Defendant ID (Composite Key) (Foreign Key References **Client**): □ User Type Identifier: String □ User Number Identifier: *Integer* ■ Acusser ID (Composite Key) (Foreign Key References **Client**): □ User Type Identifier: String □ User Number Identifier: *Integer* ■ Prosecuting Lawyer ID (Composite Key) (Foreign Key References **Lawyer**): □ User Type Identifier: String □ User Number Identifier: *Integer* **Judges** ■ ID (Composite Key) (Foreign Key References **User**): □ User Type Identifier: String □ User Number Identifier: *Integer* ■ Name: String ■ Education: String License Year: Date ■ Experience: *Integer*

General_Queries

• Query Handler ID (Composite Key) (Foreign Key References Bar Council): □ User Type Identifier: String □ User Number Identifier: *Integer* ■ Query From ID (Composite Key) (Foreign Key References **User**): □ User Type Identifier: String □ <u>User Number Identifier</u>: *Integer* Query No: Integer

Query Status: String

Query Description: String



License_Requests

- Query Handler ID (Composite Key) (Foreign Key References Bar Council):
 - □ User Type Identifier: String
 - \square User Number Identifier: Integer
- Query From ID (Composite Key) (Foreign Key References **User**):
 - \square User Type Identifier: String
 - □ <u>User Number Identifier</u>: *Integer*
- Query No: Integer
- Query Status: String
- String
- Email ID: String
- Resume Link: String
- CLAT Score: Real

BarCouncil

- <u>ID</u> (Composite Key) (Foreign Key References **User**):
 - □ User Type Identifier: String
 - \square <u>User Number Identifier</u>: *Integer*
- Name: String
- Dept Type: String

Task

- <u>Task To ID</u> (Composite Key) (Foreign Key References **User**):
 - \square User Type Identifier: String
 - \square User Number Identifier: Integer
- <u>Task From ID</u> (Composite Key) (Foreign Key References **Lawyers**):
 - □ User Type Identifier: String
 - □ User Number Identifier: *Integer*
- Task No.: Integer
- Task Status: String
- Task Description Link: String
- Case ID (Foreign Key References Case)



Request

■ Request To ID (Composite Key) (Foreign Key References User):
\Box User Type Identifier: String
\Box <u>User Number Identifier</u> : <i>Integer</i>
■ Request From ID (Composite Key) (Foreign Key References User):
□ <u>User Type Identifier</u> : String
□ <u>User Number Identifier</u> : <i>Integer</i>
■ <u>Case ID</u> (Composite Key) (Foreign Key References Case)
■ Request Type: String
Request No.: Integer
Paralegals And Trainees
■ <u>ID</u> (Composite Key) (Foreign Key References User):
□ User Type Identifier: String
\Box User Number Identifier: Integer
■ Independent Lawyer ID (Composite Key) (Foreign Key References Independent Lawyers):
\Box User Type Identifier: $String$
\square User Number Identifier: $Integer$
■ Firm ID (Composite Key) (Foreign Key References Firm):
□ User Type Identifier: String
\square User Number Identifier: Integer
■ Name: String
■ Salary: Real
Experience: Integer
■ Education: String
Position: String
Hires
■ <u>Hire Request From ID</u> (Composite Key) (Foreign Key References Case):
□ User Type Identifier: String
\Box <u>User Number Identifier</u> : Integer
■ <u>Hire Request To ID</u> (Composite Key):
\Box <u>User Type Identifier</u> : $String$
□ <u>User Number Identifier</u> : <i>Integer</i>
Supervises
■ <u>Supervisor ID</u> (Composite Key) (Foreign Key References Bar Council):
□ <u>User Type Identifier</u> : String
□ <u>User Number Identifier</u> : <i>Integer</i>
■ <u>Supervisee ID</u> (Composite Key) (Foreign Key References User):



Associated

- Case ID (Composite Key) (Foreign Key References Case)
- <u>Associated ID</u> (Composite Key) (Foreign Key References Paralegals and Trainees):
 - $\hfill \Box$ User Type Identifier: String
 - □ User Number Identifier: *Integer*

Manages

- Manager ID (Composite Key) (Foreign Key References Lawyers Under Firm):
 - □ User Type Identifier: String
 - □ <u>User Number Identifier</u>: *Integer*
- Employee ID (Composite Key) (Foreign Key References **Firm**):
 - □ User Type Identifier: String
 - □ User Number Identifier: *Integer*

Receive Join Request

"Receive Join Request" has no table because the request is a weak entity set.

Send Join Request

"Send Join Request" has no table because the request is a weak entity set.

Receive Case Request

"Receive Case Request" has no table because the request is a weak entity set.

Send Case Request

"Send Case Request" has no table because the request is a weak entity set.

Assign

"Assign" has no table because the task is a weak entity set.

Takes up

"Takes up" has no table because the task is a weak entity set.

Takes up 2

"Takes up 2" has no table because the task is a weak entity set.

Files

"Files" has no table because queries is a weak entity set.

Looks on

"Looks on" has no table because the 1:N relationship is already handled by the many side (query).

Paralegal Trainee work under independent lawyer

"Paralegal Trainee work under an independent lawyer" has no table because it is already being handled in the many side (paralegal).



Paralegal Trainee work under firm

"Paralegal Trainee work under a firm" has no table because it is already being handled in the many side (paralegal).

Handles

The "Handles" relationship is 1:N, which is already handled in the "Case" (Many Side).

Works under

The "Works under" relationship is 1:N, which is already handled in "Lawyers under firm" (Many Side).

Evaluates

The "Evaluates" relationship is 1:N, which is already handled in the "Case" (Many Side).

Oversee

"Oversee" is the name of a relationship that conveys that the Advocacy Department can access all the details of all the cases.

Registers

The "Registers" relationship is 1:N, which is already handled in the "Case" (Many Side).