

Databases

Homework 1

You need to create an ER diagram for the database of a legal company. The requirements are described below. Analyze the requirements and suggest a solution.

When it comes to drawing ER diagrams, we suggest the following tool (we encourage you to install the desktop application version in order to create your diagrams offline):

- [Draw.io\(web application\)](https://draw.io)
- [Draw.io\(Windows application\)](https://draw.io)
- [Draw.io\(macOS/Linux installations\)](https://draw.io)

The legal company employs **notaries**, **lawyers**, and **trainees**. It keeps track of the **SSN**, **name**, **surname**, and **address** consisted of **street**, **number**, **state**, and **zip code**, and **multiple telephone numbers** for all employees. For trainees additionally stores the **experience** in years, as well as the **lawyer that is responsible for them**. For each **client**, the company holds information about the client's **type**, **name**, and **address**. The company also keeps records of the client's **legal cases** it handles (name and description), and for each legal case, it stores information about the **laws** that it references and **for which client they are**. For each **law**, the database should keep the **name** and **legal areas that it covers**. For each **legal area**, a **name** and **description** are stored, and all **allied legal areas**. For each lawyer, the **degree of expertise** for each legal area is held.

Next, the database should store information about **which lawyers were engaged for which legal case** and the **start and end dates of the engagement**. There may be lawyers that were not involved in a legal case so far. The database keeps track only of legal cases engaging at least one lawyer. Within one legal case, lawyers can perform **legal activities** for which the **title** and the **date of the activity** are stored. Legal activities need to be prepared by trainees who perform various tasks within a single activity.

For each **task**, the **trainee**, **date**, **name**, and **legal case** need to be recorded. Each trainee participates in the preparation of at least one legal activity.

For keeping track of the **verification of documents**, the database stores the notary, the client, and the verified document. Each document has a name and a type. Clients with at least one legal case or at least one verified document are being stored in the database.