

## Database Modeling (Specification)

Go to the page [ERDPlus](#)

Log in. (If needed, make an account).

Go to the Documents.

Create a New Diagram (Harjoitus) - ER Diagram (Don't use ä, å, ü, ö characters.)

Open that New Diagram (Harjoitus).

Add Entity - Add Entity Name (Henkilo) - Type - Regular

Add Attribute - Add Attribute Name (Hetu) - Unique

Add Attribute - Add Attribute Name (Enimi, Snimi)

Add New Entity - Add Entity Name (Auto) - Type - Regular

Add Attribute - Add Attribute Name (Reknro) - Unique

Add Attribute - Add Attribute Name (Merkki, Malli, Vmalli)

Add Tyontekija ja Osasto and so on ... Save your work.

Press Connect and make (draw) line from one Entity (Tyontekija) to other Entity (Osasto).

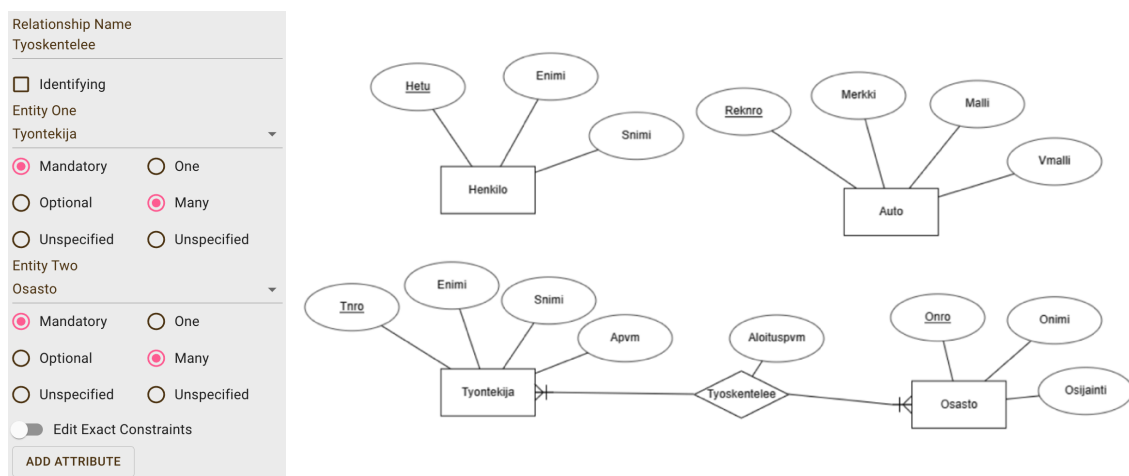
Add Relationship Name - (Tyoskentelee)

Add Attribute to the relationship - (Aloituspvm)

Relationship - Mandatory (Tyontekija) - Many (Osasto)

(Depends on situations - Many or One)

Save. Go to the Documents.



From Documents:

Choose (Harjoitus) ER Diagram (three dots) and Convert to Relational Schema.

Press Create and edit.

Reorganize tables if needed.

Press Connect and from Auto make (draw) a line to the Henkilo.

(Now you have Foreign Key in Henkilo table)



In every table, you should choose the correct Data type for every element.  
(Except Foreign Key)



Name	Data Type	Data Type Size
<b>Tnro</b>	INT	
Enimi	VARCHAR(n)	15
Snimi	VARCHAR(n)	15
Apvm	DATE	

Save.

Go to the Documents. Choose (Harjoitus) Relational Schema (three dots) Generate SQL.  
Copy that SQL code to the Sublime Text Editor.

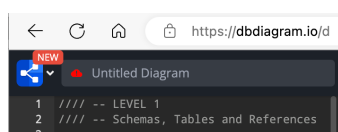
Save document with name **Harjoitus.sql** (type sql) to the folder you want to save it.

Go to the page [dbdiagram.io - Database Relationship Diagrams Design Tool](https://dbdiagram.io)

Choose Create New Diagram on the left side of page.

Sign in with your e-mail address. You will get the OTP code by e-mail.

Choose Create New Diagram again. Now you have empty page.

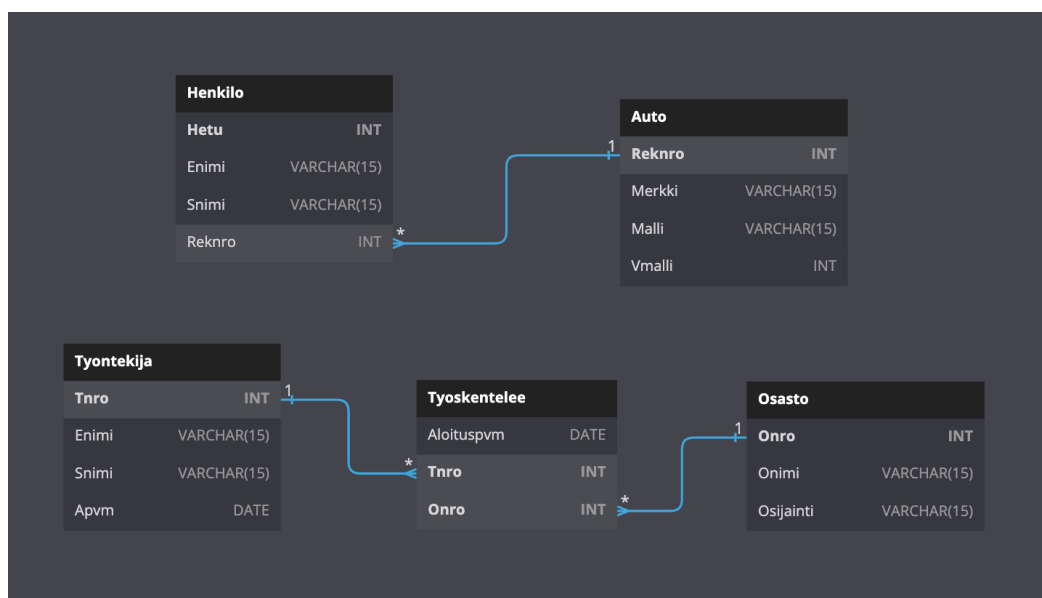


Go to the Import and choose Import from MySQL.

Copy your SQL code from the Sublime Harjoitus.sql file.

Paste the code to the Import from MySQL window. Submit.

Arrange the tables as you wish. Take a screenshot.



Copy from Sublime the code: Copy as HTML  
Open Word: Paste Special use HTML Format  
Result: You can change the text inside the box area.

```
CREATE TABLE Auto (
  Reknro INT NOT NULL,
  Merkki VARCHAR(15) NOT NULL,
  Malli VARCHAR(15) NOT NULL,
  Vmalli INT NOT NULL,
  PRIMARY KEY (Reknro) );

CREATE TABLE Tyontekija (
  Tnro INT NOT NULL,
  Enimi VARCHAR(15) NOT NULL,
  Snimi VARCHAR(15) NOT NULL,
  Apvm DATE NOT NULL,
  PRIMARY KEY (Tnro) );

CREATE TABLE Osasto (
  Onro INT NOT NULL,
  Onimi VARCHAR(15) NOT NULL,
  Osijainti VARCHAR(15) NOT NULL,
  PRIMARY KEY (Onro) );

CREATE TABLE Tyoskentelee (
  Aloituspvm DATE NOT NULL,
  Tnro INT NOT NULL,
  Onro INT NOT NULL,
  PRIMARY KEY (Tnro, Onro),
  FOREIGN KEY (Tnro) REFERENCES Tyontekija(Tnro),
  FOREIGN KEY (Onro) REFERENCES Osasto(Onro) );

CREATE TABLE Henkilo (
  Hetu INT NOT NULL,
  Enimi VARCHAR(15) NOT NULL,
  Snimi VARCHAR(15) NOT NULL,
  Reknro INT NOT NULL,
  PRIMARY KEY (Hetu),
  FOREIGN KEY (Reknro) REFERENCES Auto(Reknro) );
```