

Review questions and exercises

1. Transferring data from a database to an application's data structures requires us to:

1.

2.

Those 2 actions have a cost for a computer, which we call *overhead cost*. What are the two aspects of the overhead cost that were mentioned in class?

For the following exercises, you can either use MySQL locally on your computer, or go to the following website:

<https://paiza.io/en/projects/new?language=mysql>

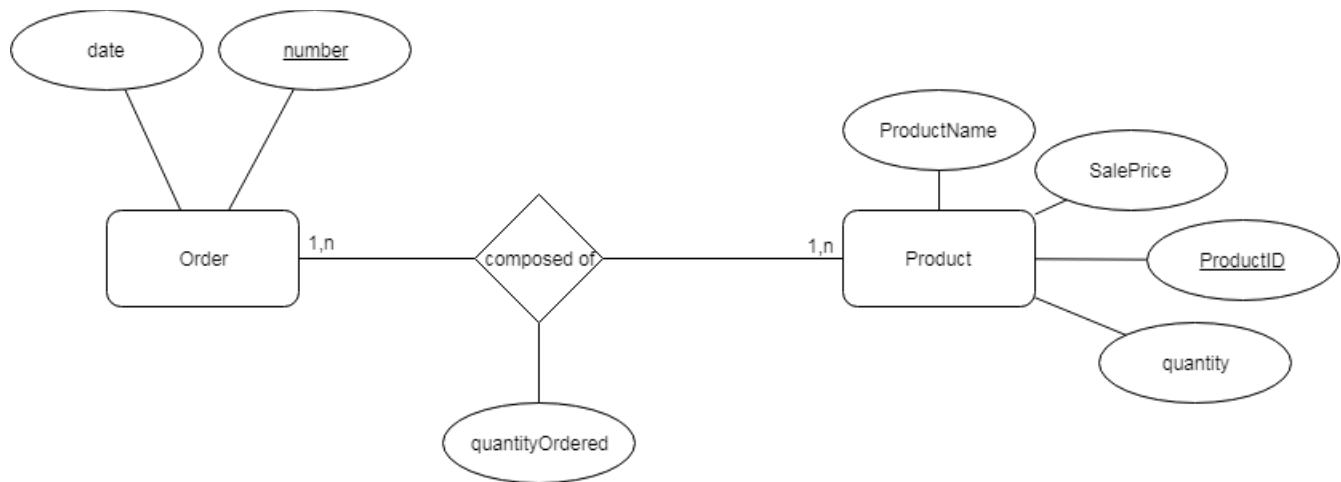
You can copy the MySQL code from your command line and paste it in the same document as the one containing your answers to the previous question.

See this link for MySQL types: <https://dev.mysql.com/doc/refman/8.0/en/data-types.html>

2. Write a MySQL statement to:

- a) create a table named RupeeStore including the columns: storeID, storeName, and storeType.
- b) create a table named House including the columns: houseID, address, and another attribute which cannot ever have a null value in any row.
- c) change the RupeeStore table so that the column storeID becomes a primary key.
- d) add to the House table a column named closestStore, which is a foreign key linked to the primary key storeID of the table RupeeStore.
- e) create a table named Customer including the columns: customerID, firstName, LastName, and age. Note: all customers have to be 16 years old or older.
- f) make up a default name for the rupee store.
- g) insert two stores into the RupeeStore table (with values in all the columns).
- h) insert two houses into the House table (with values in all the columns).
- i) insert two customers into the Customer table (with values in all the columns).
- j) ask MySQL for all the customers in the Customer table.
- k) ask MySQL for the stores' names in the RupeeStore table.

3. Look at the database represented in this E-R diagram:



Then:

- Create a database called 'Commerce'.
- In that database, create the MySQL tables that correspond to the entities and attributes represented in the diagram.
 - In each table, you will have to put column names corresponding to the attributes' names.
 - Do not forget to add constraints for the primary keys, either at table creation or by altering the table.
- Using the INSERT INTO command, insert two orders into the Order table and insert two products into the Product table.
- Using the SELECT command, make at least two different queries to the database.