

Exercises: Data Definition and Data Types

1. Create Database

In that task you will be required to create a database **using only SQL queries**. Firstly, just **create new database** named **shop**.

2. Create Tables

In the newly created database Shop add table **products (id, name, price)**. Then add new table **towns (id, name)**. Set **id** columns of both tables to be **primary key** as **constraint**.

3. Alter Products Table

Change the structure of the Products table to have **new column town_id** that would be of the same type as the **id** column of **towns table**. Add **new constraint** that makes **town_id foreign key** and references to **id** column of **towns** table.

4. Insert Records in Both Tables

Populate both tables with sample records given in the table below.

products				towns	
id	name	price	town_id	id	name
1	Adibas	22.50	2	1	Sofia
2	Niki	15.30	1	2	Targovishte
3	Persi	21.60	3	3	Plovdiv

5. Truncate Table Products

Delete all the data from the **products** table using **SQL query**.

6. Drop All Tables

Delete all tables from the **shop** database using **SQL query**.

7. Create Table People

Using **SQL query** create table **“people”** with columns:

- **id** – unique number for every person there will be **no more than $2^{31}-1$ people**. (Auto incremented)
- **name** – full name of the person will be **no more than 200 Unicode characters**. (Not null)
- **height** – In meters. Real number precise up to **2 digits** after floating point. (Allow nulls)
- **weight** – In kilograms. Real number precise up to **2 digits** after floating point. (Allow nulls)
- **gender** – Possible states are **m** or **f**. (Not null)
- **birthdate** – (Allow nulls)
- **biography** – detailed biography of the person it can contain **max allowed Unicode characters**. (Allow nulls)

Make **id** primary key. Populate the table with **5 records**.

8. Create Table Users

Using **SQL query** create table **users** with columns:

- **id** – unique number for every user. There will be **no more than 2^{63-1} users**. (Auto incremented)
- **username** – unique identifier of the user will be **no more than 30 characters (non Unicode)**. (Required)
- **password** – password will be **no longer than 26 characters (non Unicode)**. (Required)
- **last_login_time**

Make **id** primary key. Populate the table with **5 records**.

9. Change Primary Key

Using **SQL queries** modify table **users** from the previous task. First **remove current primary key** then create **new primary key** that would be **combination** of fields **id** and **username**. The initial primary key name on **id** is **pk_users**.