

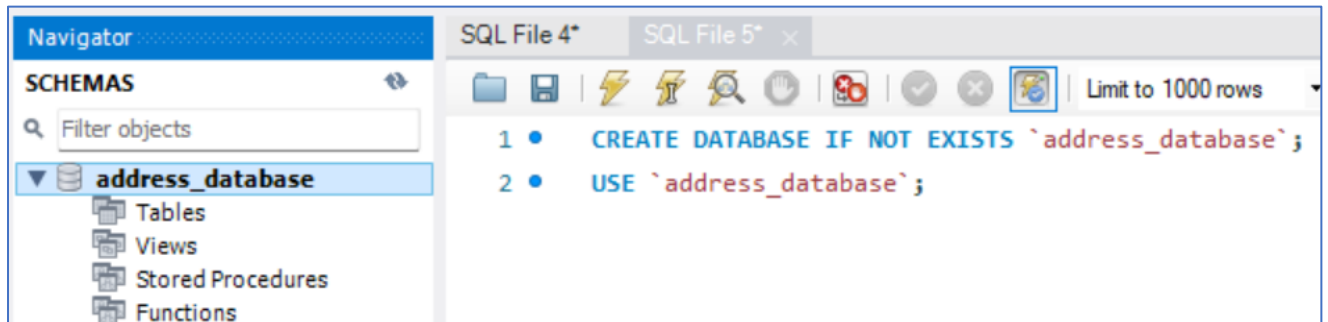
Homework: Databases

Problems for homework for the ["Software Technologies" course @ Software University](#).

Submit this document as your homework.

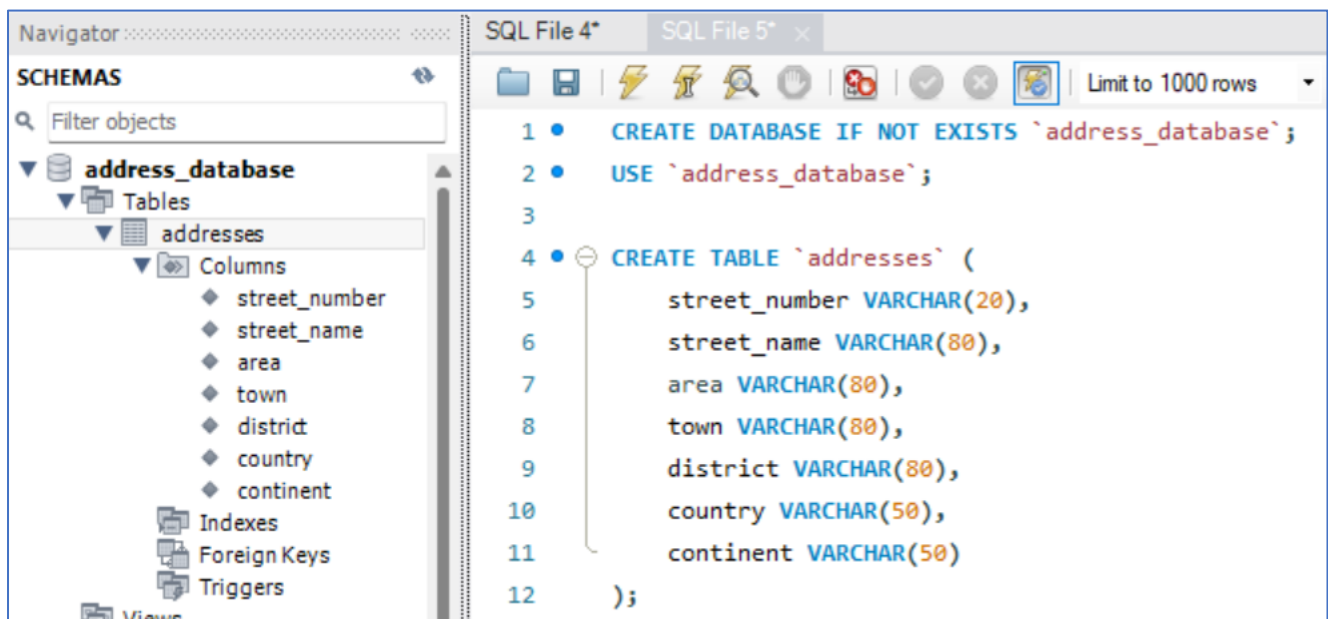
1. Address Database:

1. CREATE DATABASE named `address_database` and USE it:

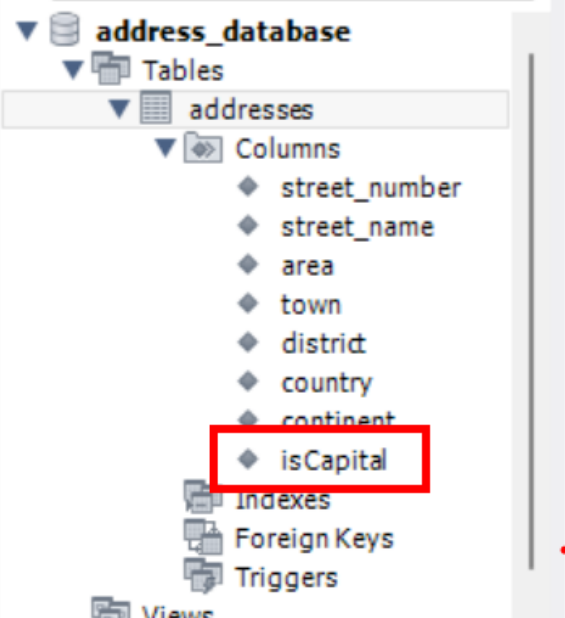


2. CREATE TABLE named `addresses` with the following columns:

- street_number
- street_name
- area
- town
- district
- country
- continent



3. We forgot to add Boolean column, named `isCapital`:



The screenshot shows a database management tool interface. On the left, a tree view displays the 'address_database' containing a table named 'addresses'. Under the 'Columns' section for 'addresses', the column 'isCapital' is highlighted with a red rectangle. On the right, the SQL editor shows the following code:

```
4 CREATE TABLE `addresses` (  
5     street_number VARCHAR(20),  
6     street_name VARCHAR(80),  
7     area VARCHAR(80),  
8     town VARCHAR(80),  
9     district VARCHAR(80),  
10    country VARCHAR(50),  
11    continent VARCHAR(50)  
12 );  
13  
14 ALTER TABLE `addresses`  
15 ADD COLUMN isCapital BOOLEAN;
```

4. INSERT records INTO the `address` table and execute the SQL query:

```
17 INSERT INTO addresses (street_number, street_name, area, town, district, country, continent, isCapital)  
18 VALUES  
19 ('10', 'Main Street', 'Downtown', 'New York City', 'Manhattan', 'United States', 'North America', false),  
20 ('25A', 'Elm Avenue', 'West End', 'London', 'Westminster', 'United Kingdom', 'Europe', true),  
21 ('7', 'Rue de la Paix', 'Le Marais', 'Paris', 'Ile-de-France', 'France', 'Europe', true),  
22 ('1234', 'Oak Lane', 'Green Meadows', 'Los Angeles', 'California', 'United States', 'North America', false),  
23 ('42', 'High Street', 'City Center', 'Sydney', 'New South Wales', 'Australia', 'Australia & Oceania', true),  
24 ('56B', 'Maple Road', 'Northside', 'Toronto', 'Ontario', 'Canada', 'North America', false),  
25 ('9', 'Kaiserstrasse', 'Mitte', 'Berlin', 'Berlin', 'Germany', 'Europe', true),  
26 ('17', 'Plaza Mayor', 'Centro', 'Madrid', 'Madrid', 'Spain', 'Europe', true),  
27 ('3', 'Piazza San Marco', 'San Marco', 'Venice', 'Veneto', 'Italy', 'Europe', false),  
28 ('1001', 'Avenida Paulista', 'Jardins', 'Sao Paulo', 'Sao Paulo', 'Brazil', 'South America', false),  
29 ('8/15', 'Princes Street', 'New Town', 'Edinburgh', 'Edinburgh', 'United Kingdom', 'Europe', false),  
30 ('27', 'Koningsplein', 'Centrum', 'Amsterdam', 'North Holland', 'Netherlands', 'Europe', true),  
31 ('42A', 'Hauptstrasse', 'Mitte', 'Vienna', 'Vienna', 'Austria', 'Europe', true),  
32 ('100', 'Collins Street', 'CBD', 'Melbourne', 'Victoria', 'Australia', 'Oceania', false),  
33 ('123', 'Rua da Boavista', 'Baixa', 'Porto', 'Porto', 'Portugal', 'Europe', false),  
34 ('5', 'Knez Mihailova', 'Stari Grad', 'Belgrade', 'Belgrade', 'Serbia', 'Europe', true),  
35 ('9876', 'Ginza', 'Chuo', 'Tokyo', 'Tokyo', 'Japan', 'Asia', true),  
36 ('18', 'Connell Street', 'North City', 'Dublin', 'Dublin', 'Ireland', 'Europe', true),  
37 ('75C', 'Friedrichstrasse', 'Kreuzberg', 'Berlin', 'Berlin', 'Germany', 'Europe', true),  
38 ('22', 'Gran Vía', 'Malasana', 'Madrid', 'Madrid', 'Spain', 'Europe', true);
```

5. Your task is to execute the proper queries in order to get the following results:

- SELECT all addresses from the `address` table that are located in a capital city.
- SELECT all addresses from the `address` table that are located in South America.
- SELECT all addresses from the `address` table that are located in Europe, but only in NON Capital cities.

MySQL Workbench

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator: Administration - Server Status SQL File 9* SQL File 10 addresses SQL File 11* x

SCHEMAS

Filter objects

address_database

Tables

addresses

Columns

street_number

street_name

area

town

district

country

continent

isCapital

Indexes

Foreign Keys

Triggers

Views

Stored Procedures

Functions

exercise_database

Tables

employees

Columns

Indexes

Foreign Keys

Triggers

Views

Stored Procedures

Functions

first_database

Tables

Views

Stored Procedures

Administration Schemas

Information

Table: addresses

Columns:

street_number varchar(20)

1 USE `address_database`;

2 SELECT * FROM `addresses`

3 WHERE `isCapital` = TRUE;

Result Grid

Filter Rows:

Export: Wrap Cell Content: 1A

street_number	street_name	area	town	district	country	continent	isCapital
25A	Elm Avenue	West End	London	Westminster	United Kingdom	Europe	1
7	Rue de Is Paix	Le Marais	Paris	Ile-de-France	France	Europe	1
42	High Street	City Center	Sidney	New South Wales	Australia	Australia and Oceania	1
9	Kaiserstrasse	Mitte	Berlin	Berlin	Germany	Europe	1
17	Plaza Mayor	Centro	Madrid	Madrid	Spain	Europe	1
27	Koningsplein	Centrum	Amsterdam	North Holland	Netherlands	Europe	1
42A	Hauptstrasse	Mitte	Vienna	Vienna	Austria	Europe	1
5	Knez Mihailova	Stari Grad	Belgrade	Belgrade	Serbia	Europe	1
9876	Ginza	Chuo	Tokyo	Tokyo	Japan	Asia	1
18	Connel Street	North City	Dublin	Dublin	Ireland	Europe	1
75C	Friedrichstrasse	Kreuzberg	Berlin	Berlin	Germany	Europe	1
22	Gran Via	Malasana	Madrid	Madrid	Spain	Europe	1

MySQL Workbench

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator: Administration - Server Status SQL File 9* SQL File 10 addresses SQL File 11* SQL File 12* x

SCHEMAS

Filter objects

address_database

Tables

addresses

Columns

street_number

street_name

area

town

district

country

continent

isCapital

Indexes

Foreign Keys

Triggers

Views

Stored Procedures

Functions

exercise_database

Tables

employees

Columns

Indexes

Foreign Keys

Triggers

Views

Stored Procedures

Functions

first_database

Tables

Views

Stored Procedures

Administration Schemas

Information

Table: addresses

Columns:

street_number varchar(20)

1 USE `address_database`;

2 SELECT * FROM `addresses`

3 WHERE `continent` = 'South America';

Result Grid

Filter Rows:

Export: Wrap Cell Content: 1A

street_number	street_name	area	town	district	country	continent	isCapital
1001	Avenida Paulista	Jardins	Sao Paulo	Sao Paulo	Brasil	South America	0

MySQL Workbench

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator: Administration - Server Status SQL File 9* SQL File 10 addresses SQL File 11* SQL File 12* SQL File 13* x

SCHEMAS

Filter objects

- address_database
 - Tables
 - addresses
 - Columns
 - street_number
 - street_name
 - area
 - town
 - district
 - country
 - continent
 - isCapital
 - Indexes
 - Foreign Keys
 - Triggers
 - Views
 - Stored Procedures
 - Functions
 - exercise_database
 - Tables
 - employees
 - Columns
 - Indexes
 - Foreign Keys
 - Triggers
 - Views
 - Stored Procedures
 - Functions
 - first_database
 - Tables
 - Views
 - Stored Procedures

Administration Schemas

Information

Table: addresses

Columns:

```

1 • USE `address_database`;
2 • SELECT * FROM `addresses`
3 • WHERE `continent` = 'Europe' AND `isCapital` = FALSE;

```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: |

	street_number	street_name	area	town	district	country	continent	isCapital
▶	3	Plaza San Marco	San Marco	Venice	Veneto	Italy	Europe	0
	8/15	Princes Street	New Town	Edinburgh	Edinburgh	United Kingdom	Europe	0
	123	Roa da Boavista	Baixa	Porto	Porto	Portugal	Europe	0

! Create queries for each condition and place a screenshot after each query !