

DBMS

Assessment

DBMS

1. create city table

```
CREATE TABLE city (
    id INT PRIMARY KEY,
    city_name VARCHAR(100),
    lat DECIMAL(9,6),
    longn DECIMAL(9,6),
    country_id INT
);
INSERT INTO city (id, city_name, lat, longn, country_id) VALUES
(1, 'Berlin', 52.520008, 13.404954, 1),
(2, 'Belgrade', 44.787197, 20.457273, 2),
(3, 'Zagreb', 45.815399, 15.966568, 3),
(4, 'New York', 40.730610, -73.935242, 4),
(5, 'Los Angeles', 34.052235, -118.243683, 4),
(6, 'Warsaw', 52.237049, 21.017532, 5);
```

			id	city_name	lat	long	country_id
<input type="checkbox"/>	 Edit	 Copy	 Delete	1 Berlin	52.520008	13.404954	1
<input type="checkbox"/>	 Edit	 Copy	 Delete	2 Belgrade	44.787197	20.457273	2
<input type="checkbox"/>	 Edit	 Copy	 Delete	3 Zagreb	45.815399	15.966568	3
<input type="checkbox"/>	 Edit	 Copy	 Delete	4 New York	40.730610	-73.935242	4
<input type="checkbox"/>	 Edit	 Copy	 Delete	5 Los Angeles	34.052235	-118.243683	4
<input type="checkbox"/>	 Edit	 Copy	 Delete	6 Warsaw	52.237049	21.017532	5

2. create customer table

```
CREATE TABLE Customer (
```

```
    id INT PRIMARY KEY,  
    customer_name VARCHAR(100),  
    city_id INT,  
    customer_address VARCHAR(255),  
    next_call_date DATE,  
    ts_inserted DATETIME  
);
```

```
INSERT INTO Customer (id, customer_name, city_id, customer_address,  
next_call_date, ts_inserted) VALUES  
(1, 'Jewelry Store', 4, 'Long Street 120', '2020-01-21', '2020-01-09  
14:01:20.000'),  
(2, 'Bakery', 1, 'Kurfürstendamm 25', '2020-02-21', '2020-01-09  
17:52:15.000'),  
(3, 'Café', 1, 'Tauentzienstraße 44', '2020-01-21', '2020-01-10 08:02:49.000'),  
(4, 'Restaurant', 3, 'Ulica lipa 15', '2020-01-21', '2020-01-10 09:20:21.000');
```

The screenshot shows a table browser interface with the following details:

- Table Headers:** id, customer_name, city_id, customer_address, next_call_date, ts_inserted.
- Data Rows:**

<input type="checkbox"/>	Edit	Copy	Delete	1 Jewelry Store	4 Long Street 120	2020-01-21 2020-01-09 14:01:20
<input type="checkbox"/>	Edit	Copy	Delete	2 Bakery	1 Kurfürstendamm 25	2020-02-21 2020-01-09 17:52:15
<input type="checkbox"/>	Edit	Copy	Delete	3 Café	1 Tauentzienstraße 44	2020-01-21 2020-01-10 08:02:49
<input type="checkbox"/>	Edit	Copy	Delete	4 Restaurant	3 Ulica lipa 15	2020-01-21 2020-01-10 09:20:21
- Toolbar Buttons:**
- Search and Filter:** Show all, Number of rows: 25, Filter rows: Search this table, Sort by key: None.

3. create Country table

```
CREATE TABLE Country (
    id INT PRIMARY KEY,
    country_name VARCHAR(100),
    country_name_eng VARCHAR(100),
    country_code CHAR(5)
);

INSERT INTO Country (id, country_name, country_name_eng,
country_code) VALUES
(1, 'Deutschland', 'Germany', 'DEU'),
(2, 'Srbija', 'Serbia', 'SRB'),
(3, 'Hrvatska', 'Croatia', 'HRV'),
(4, 'United States of America', 'United States of America', 'USA'),
(5, 'Polska', 'Poland', 'POL'),
(6, 'España', 'Spain', 'ESP'),
(7, 'Rossiya', 'Russia', 'RUS');
```

The screenshot shows a table browser interface with the following details:

- Table Headers:** id, country_name, country_name_eng, country_code.
- Rows:**

1	Deutschland	Germany	DEU
2	Srbija	Serbia	SRB
3	Hrvatska	Croatia	HRV
4	United States of America	United States of America	USA
5	Polska	Poland	POL
6	España	Spain	ESP
7	Rossiya	Russia	RUS
- Toolbar Buttons:** Show all, Number of rows: 25, Filter rows: Search this table, Sort by key: None, Extra options, Edit, Copy, Delete.
- Bottom Navigation:** Check all, With selected: Edit, Copy, Delete, Export.
- Bottom Footer:** Show all, Number of rows: 25, Filter rows: Search this table, Sort by key: None.

4.add FOREIGN KEY in city table to country_id

ALTER TABLE city ADD INDEX(country_id)

5. add FOREIGN KEY in Customer table to city id

ALTER TABLE customer ADD INDEX(city_id)

Task 1:

```

SELECT
    country.country_name_eng AS country_name,
    city.city_name, customer.customer_name
FROM country
LEFT JOIN
    city ON country.id = city.country_id
LEFT JOIN
    customer ON city.id = customer.city_id;

```

country_name	city_name	customer_name
United States of America	New York	Jewelry Store
Germany	Berlin	Bakery
Germany	Berlin	Café
Croatia	Zagreb	Restaurant
Serbia	Belgrade	NULL
United States of America	Los Angeles	NULL
Poland	Warsaw	NULL
Spain	NULL	NULL
Russia	NULL	NULL

Task -2

```

SELECT
country.country_name_eng AS country_name,
city.city_name,
customer.customer_name
FROM country
INNER JOIN
city ON country.id = city.country_id
LEFT JOIN
customer ON city.id = customer.city_id;

```

country_name	city_name	customer_name
United States of America	New York	Jewelry Store
Germany	Berlin	Bakery
Germany	Berlin	Café
Croatia	Zagreb	Restaurant
Serbia	Belgrade	<i>NULL</i>
United States of America	Los Angeles	<i>NULL</i>
Poland	Warsaw	<i>NULL</i>