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SC24M138

Scientific Computing- Lab 8: DBMS

Write SQL queries based on the table given below

Employee Details

Emp ID	Fullname	Manager id	Date of joining
121	Ravi Nair	321	10/10/2013
221	Geetha Kumar	321	1/5/2014
321	Maya Raj	986	5/4/2010
421	Alok Mishra	876	4/3/2009

Here we Create Table for this value and then insert into it:

No limit

Query | Query History

```sql
CREATE TABLE public.Employee_Details(
    EmpID INT PRIMARY KEY,
    Fullname VARCHAR (50) NOT NULL,
    Manager_id INT,
    DateOfJoining DATE
);

INSERT INTO public.Employee_Details(EmpID, Fullname, Manager_id, DateOfJoining) VALUES
    (121, 'Ravi Nair', 321, '2013-10-10'),
    (221, 'Geetha Kumar', 321, '2014-05-01'),
    (321, 'Maya Raj', 986, '2010-04-05'),
    (421, 'Alok Mishra', 876, '2009-03-04');
```

Data Output | Messages | Notifications

	empid [PK] integer	fullname character varying (50)	manager_id integer	dateofjoining date
1	121	Ravi Nair	321	2013-10-10
2	221	Geetha Kumar	321	2014-05-01
3	321	Maya Raj	986	2010-04-05
4	421	Alok Mishra	876	2009-03-04

Employee Salary

Emp ID	Project	Salary
121	1	50000
221	2	60000
321	1	90000
421	3	55000

Query Query History

```sql
CREATE TABLE public.Employee_Salary(
    EmpID INT PRIMARY KEY REFERENCES public.Employee_Details(EmpID),
    Project INT,
    Salary INT
);

INSERT INTO public.Employee_Salary(EmpID, Project, Salary) VALUES
    (121, 1, 50000),
    (221, 2, 60000),
    (321, 1, 90000),
    (421, 3, 55000);
```

Data Output Messages Notifications

```
INSERT 0 4

Query returned successfully in 60 msec.
```

Data Output Messages Notifications

	empid [PK] integer	project integer	salary integer
1	121	1	50000
2	221	2	60000
3	321	1	90000
4	421	3	55000

(a) Write a query to fetch employee names and salary records. Return employee details even if the salary record is not present for the employee.

Query Query History

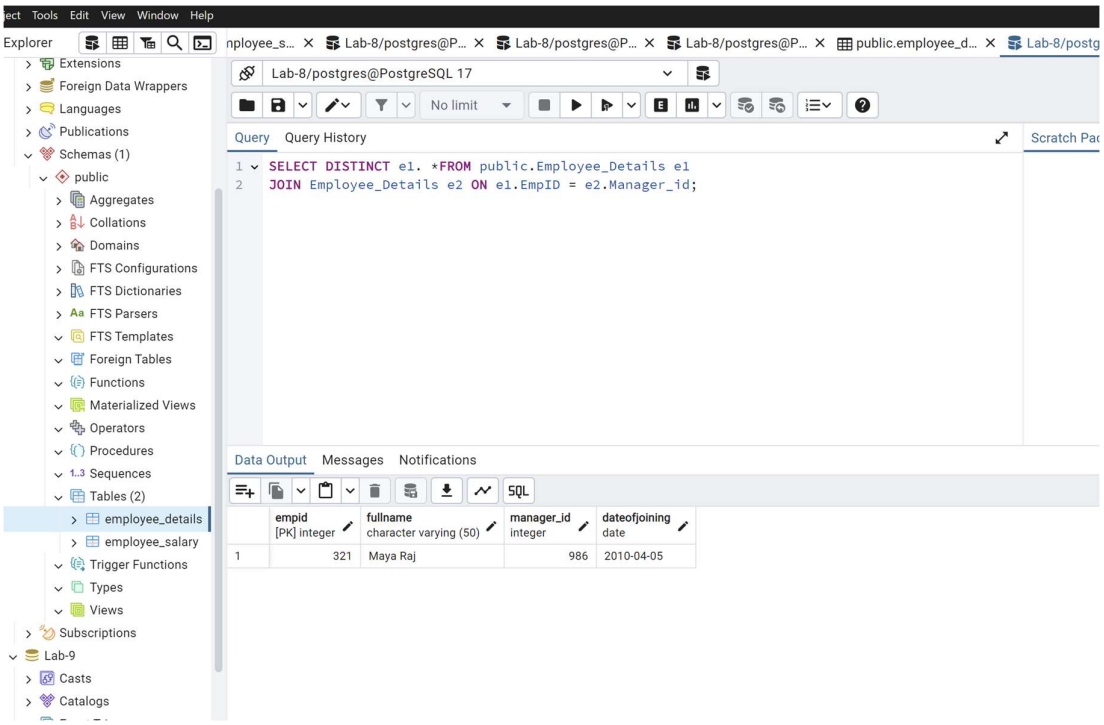
```sql
SELECT e.Fullname, s.Salary
FROM public.Employee_Details e
LEFT JOIN Employee_Salary s ON e.EmPID = s.EmpID;
```

Data Output Messages Notifications

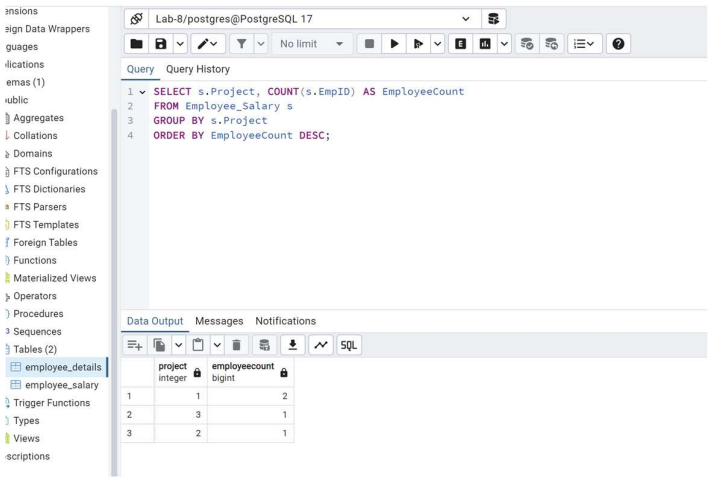
	fullname character varying (50)	salary integer
1	Ravi Nair	50000
2	Geetha Kumar	60000
3	Maya Raj	90000
4	Alok Mishra	55000

(b) Write a SQL query to fetch all the Employees who are also managers from EmployeeDetails table.

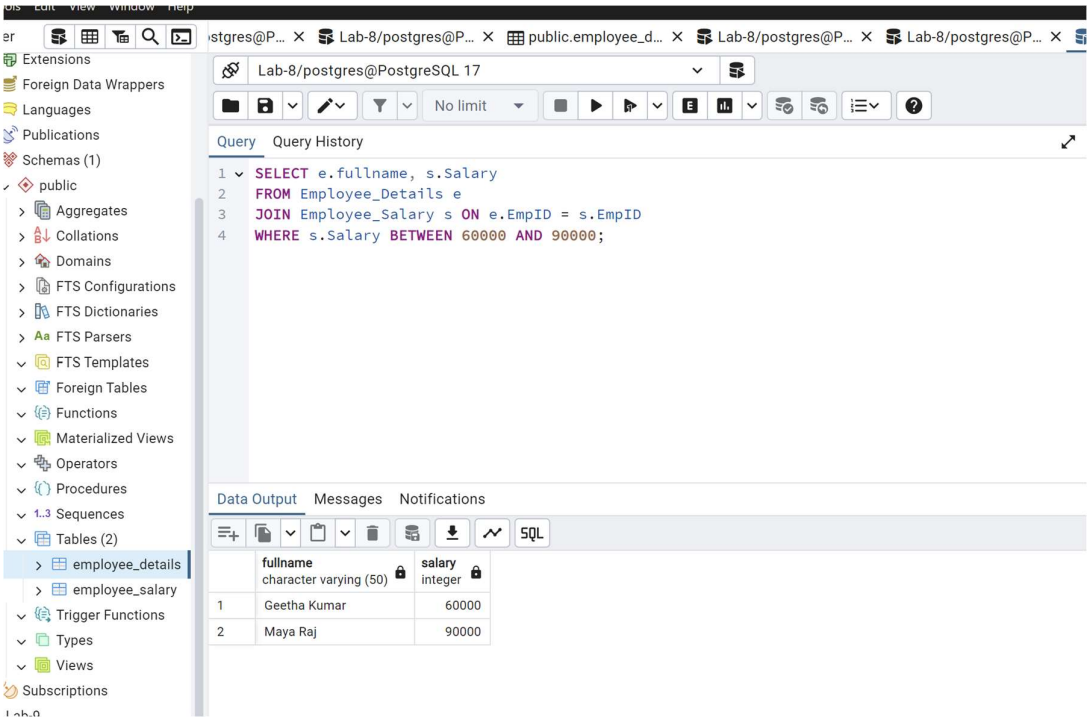
The JOIN condition e1.EmpID = e2.ManagerID ensures that we only select employees who are listed as managers for other employees.
DISTINCT removes duplicate rows if an employee manages multiple people.



(c) Write a SQL query to fetch project wise of count of employees sorted by project's count in descending order.



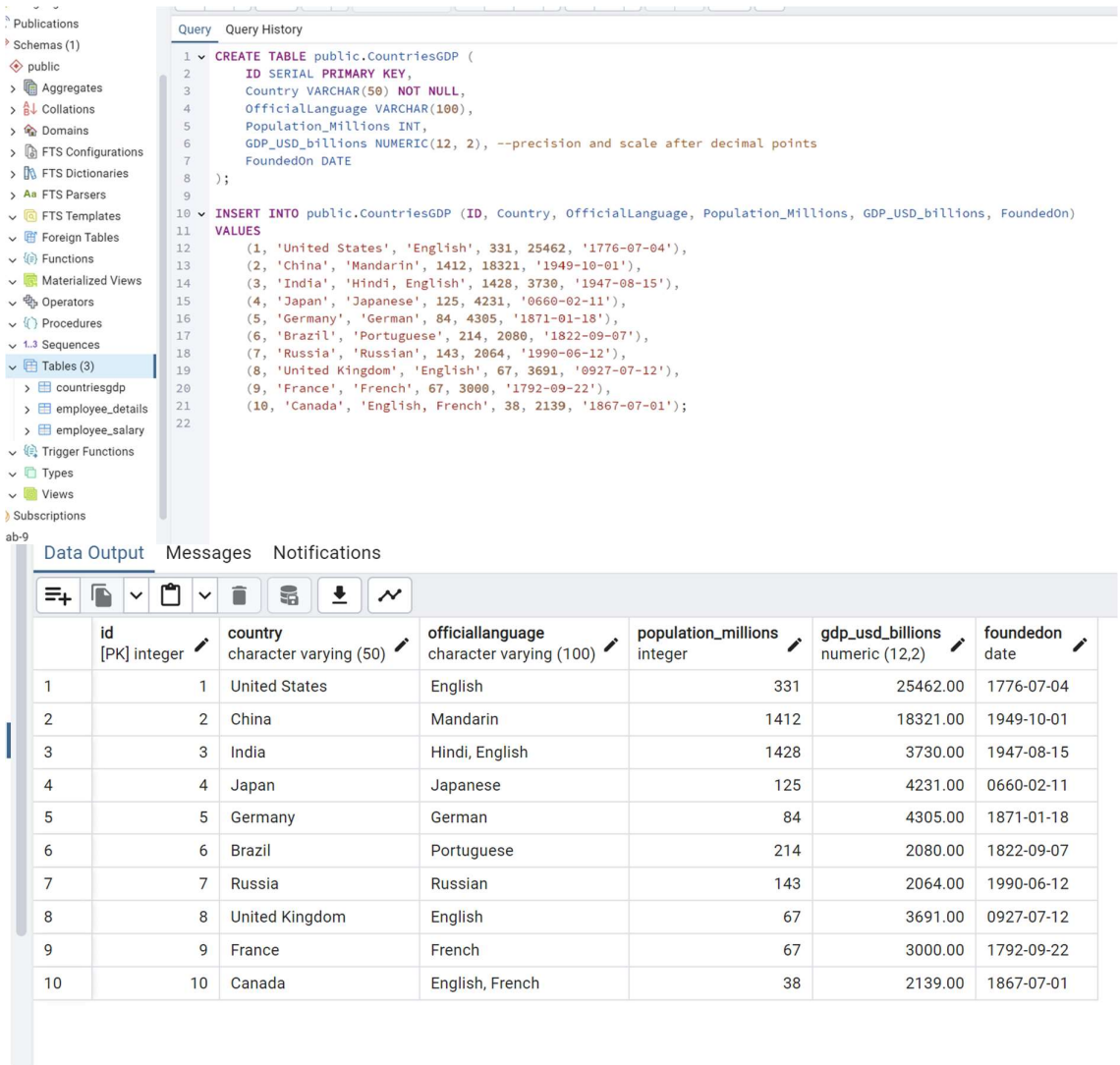
(d) Write a SQL query to fetch employee names having salary greater than or equal to 60000 and less than or equal 90000.



Q. 2 Solve the questions for the following table

ID	Country	Official Language(s)	Population (Millions)	GDP (USD Billions)	Founded On
1	United States	English	331	25,462	July 4, 1776
2	China	Mandarin	1,412	18,321	October 1, 1949
3	India	Hindi, English	1,428	3,730	August 15, 1947
4	Japan	Japanese	125	4,231	February 11, 660 BCE
5	Germany	German	84	4,305	January 18, 1871
6	Brazil	Portuguese	214	2,080	September 7, 1822
7	Russia	Russian	143	2,064	June 12, 1990
8	United Kingdom	English	67	3,691	July 12, 927

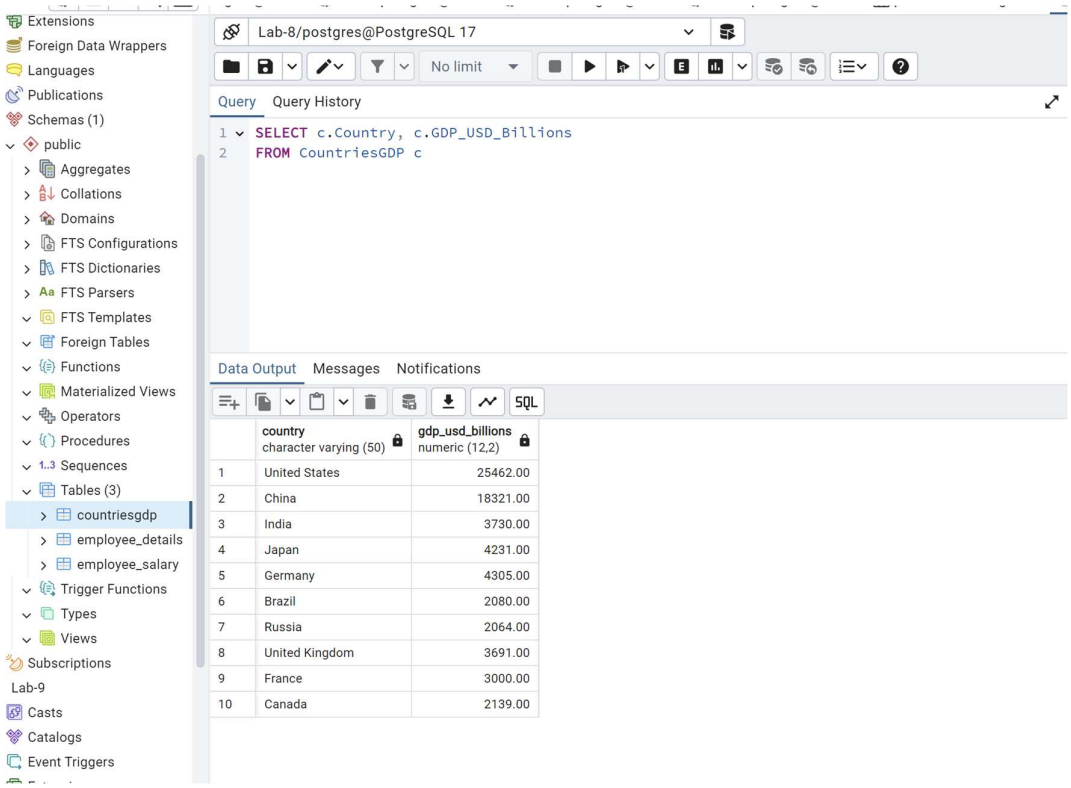
9	France	French	67	3,000	September 22, 1792
10	Canada	English, French	38	2,139	July 1, 1867



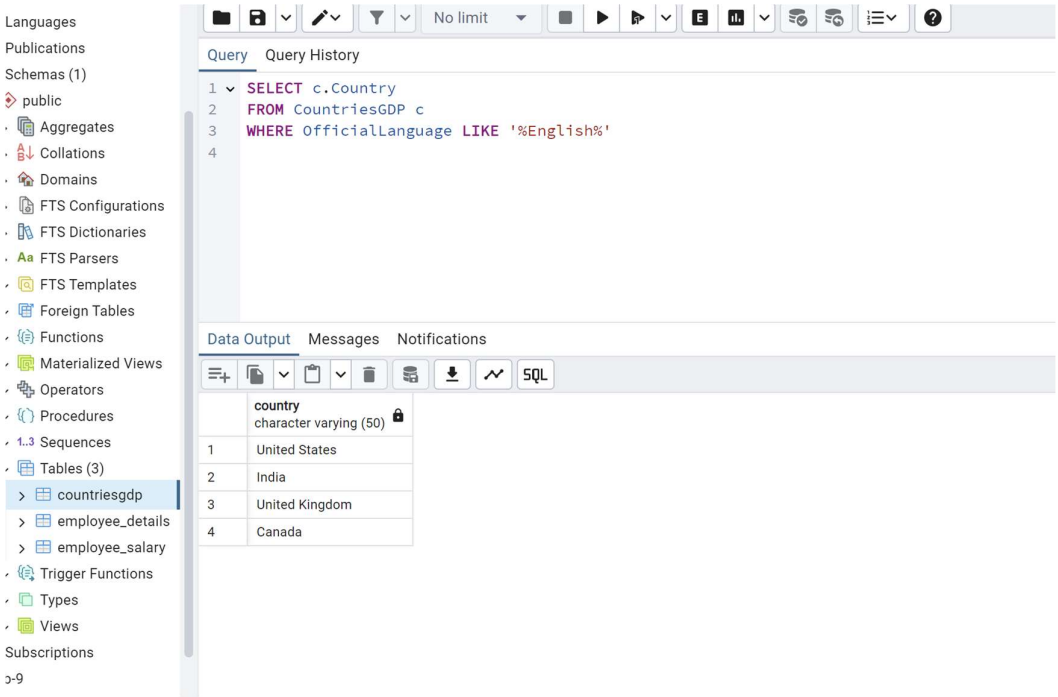
	id [PK] integer	country character varying (50)	officiallanguage character varying (100)	population_millions integer	gdp_usd_billions numeric (12,2)	foundedon date
1	1	United States	English	331	25462.00	1776-07-04
2	2	China	Mandarin	1412	18321.00	1949-10-01
3	3	India	Hindi, English	1428	3730.00	1947-08-15
4	4	Japan	Japanese	125	4231.00	0660-02-11
5	5	Germany	German	84	4305.00	1871-01-18
6	6	Brazil	Portuguese	214	2080.00	1822-09-07
7	7	Russia	Russian	143	2064.00	1990-06-12
8	8	United Kingdom	English	67	3691.00	0927-07-12
9	9	France	French	67	3000.00	1792-09-22
10	10	Canada	English, French	38	2139.00	1867-07-01

Questions:

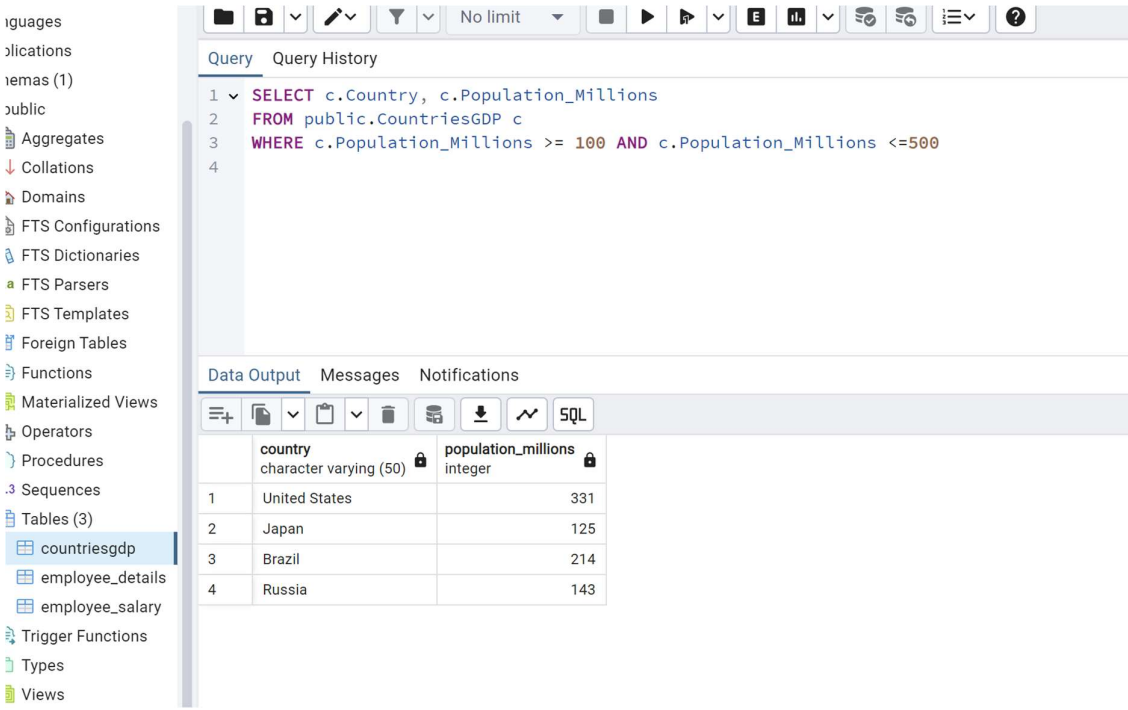
1. **Write a query to fetch country names and their GDP records. Return country details even if the GDP record is not present for the country**



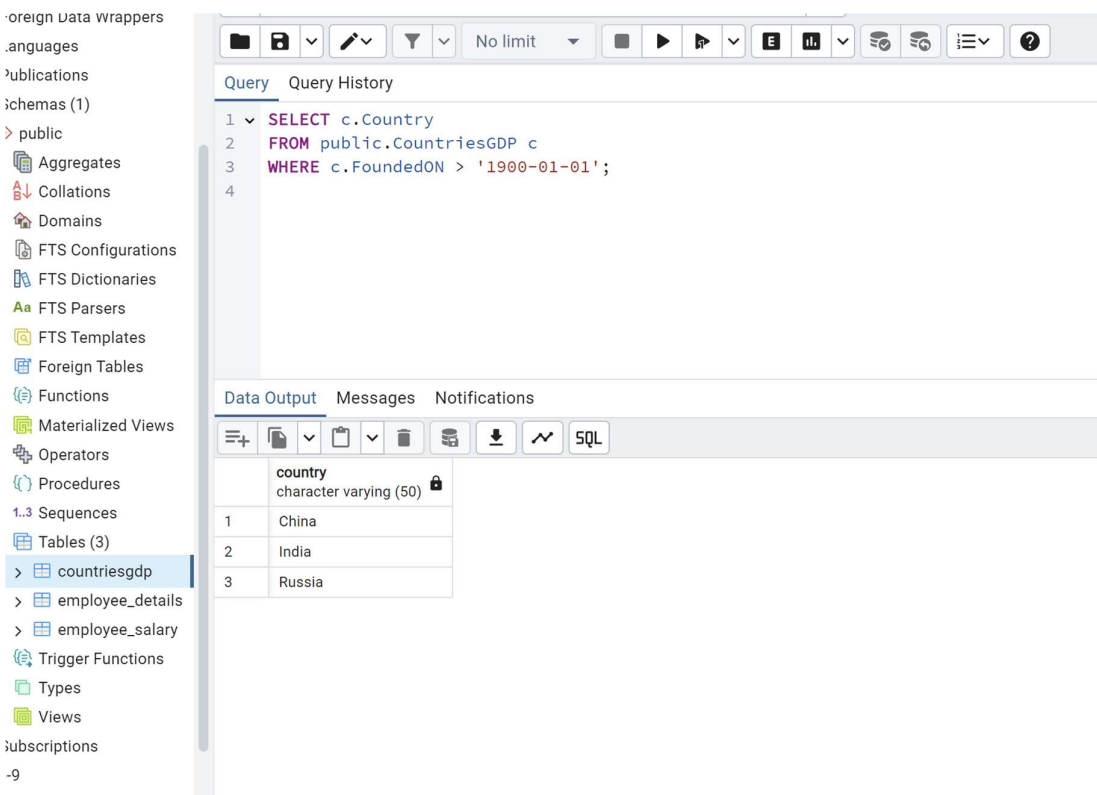
2. **Write a SQL query to fetch all the countries that have an official language of "English" from the Countries table.**



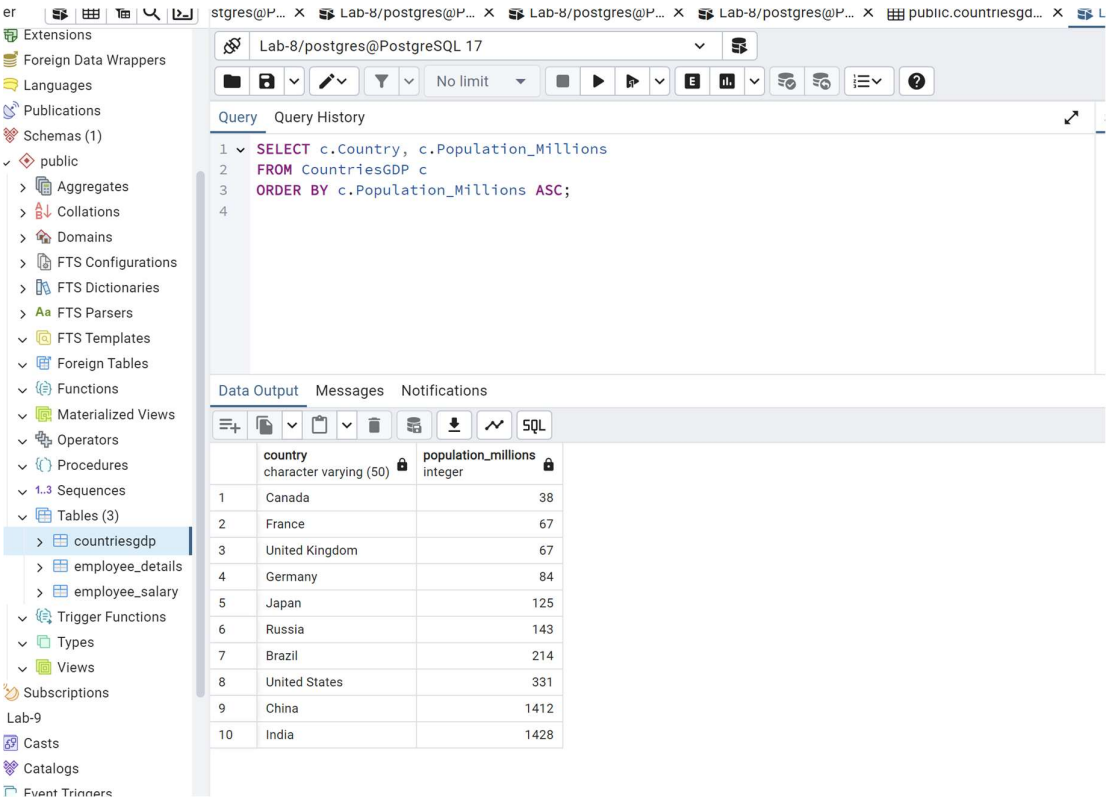
3. **Write a SQL query to fetch country names that have a population greater than or equal to 100 million and less than or equal to 500 million.**



4. Write a query to list the countries founded after the year 1900.



5. **Write a SQL query to fetch the country names and populations in ascending order of population.**



6. **Write a SQL query to fetch all the countries whose official language is not "English" from the Countries table.**