Week 02: SQL Practice Tasks

Online IDE for practice: http://www.sqlfiddle.com/
Practice document: https://github.com/NYU-DataScienceBootCamp/Week-2-SQL/blob/main/SQL_Practice.pdf

NOTE: Make sure you answer the queries in the boxes given and paste screenshots in the output box.

The solution queries will be posted on June 24th before the session

Input Data

Use the database which was discussed during the session and feel free to change the attributes of the tables. Make sure that the following conditions are satisfied:

- There are three “tables”. One for storing Employee Details, One for Bonus, and One for Employee Title.
- There are at least 12 employees in the table which stores Employee Details.

NOTE: Make sure that you paste your input data in the box given below

Tasks

SELECTing data

- Display the entire table containing the details of all the Employees

  QUERY:

  ```
  SELECT * FROM Employee
  ```

  OUTPUT:

- Write a query to fetch “FIRST_NAME” from the Employees table in the UPPER CASE

  QUERY:

  ```
  SELECT UPPER(FIRST_NAME) FROM Employee
  ```

  OUTPUT:

GROUPing them together

- Write a query to fetch the number of Employees for each department in the descending order

  QUERY:

  ```
  SELECT COUNT(DEPARTMENT), DEPARTMENT
  FROM Employee
  GROUP BY DEPARTMENT
  ORDER BY COUNT(DEPARTMENT) DESC
  ```

  OUTPUT:

Using WHERE somewhere

- Write a query to fetch the names of the Employees with salaries >= 90000 and <= 200000

QUERY:

```
FROM Employee
WHERE SALARY >= 90000 AND SALARY <= 200000
```

OUTPUT:

JOINing the tables

- Write a query to print details of Employees who are also “Managers”

QUERY:

```
SELECT E.EMPLOYEE_ID, E.FIRST_NAME, T.EMPLOYEE_TITLE
FROM Employee E
INNER JOIN Title T ON E.EMPLOYEE_ID=T.EMPLOYEE_REF_ID
WHERE T.EMPLOYEE_TITLE = 'Manager'
```

OUTPUT:

COPYing

- Write an SQL query to clone a new table from another table

QUERY:

```
CREATE TABLE Emp LIKE Employee
INSERT INTO Emp SELECT * FROM Employee
```

OUTPUT:

Aliasing

- Find the average salary of employees in each department and name the AVG(SALARY) column as “AverageSalary”

  QUERY:

```
SELECT AVG(SALARY) AS AverageSalary, DEPARTMENT
FROM Employee
GROUP BY DEPARTMENT
```

  OUTPUT:

Some other stuff

- Write an SQL query to show the second-highest salary from a table

  QUERY:

```
SELECT * FROM Employee
WHERE SALARY < (SELECT max(SALARY) FROM Employee)
ORDER BY SALARY DESC
LIMIT 1
```

  OUTPUT:

- Write an SQL query to show one row twice in results from a table

  QUERY:

```
SELECT *from Employee WHERE EMPLOYEE_ID ='001'
UNION all
SELECT *from Employee WHERE EMPLOYEE_ID ='001'
```

  OUTPUT:

- Write an SQL query to fetch the departments that have less than five people in it

  QUERY:

```
SELECT DEPARTMENT, COUNT(DEPARTMENT) AS NumberEmp
FROM Employee
GROUP BY DEPARTMENT
HAVING NumberEmp < 5
```

OUTPUT:

- Write an SQL query to fetch the last five records from a table

QUERY:

```
SELECT*
FROM Employee
ORDER BY EMPLOYEE_ID DESC
LIMIT 5
```

OUTPUT:
