Refresher Course on
Data Science
Assignment : 4

1. Create a database named **college**
   Create a table name **student** in **college** database with following structure
   roll,name,class,marks,age with respective datatypes.

   ○ Insert at least 5 rows in the table.
   ○ Delete the entry of roll number 4
   ○ Update the marks of roll number 3
   ○ Give additional grace marks of 0.5 to all students.
   ○ Truncate the table
   ○ Insert the data again using multi-insert statement.

2. Apply the following MySQL clause to this table.
   ○ Creating, Altering, Dropping Constraints
   ○ Aggregate Functions: SUM(), AVG(), COUNT(), MAX(), MIN(), COUNT(), Group By, Having Clause
   ○ Using Like, Distinct, Order By, Between...And
   ○ Comparing Nulls, Using IN/Not-In

3. Check the table below and solve the queries.

Employee_id	First_name	Last_name	Salary	Joining_date	Departement
1	Bob	Kinto	1000000	2019-01-20	Finance
2	Jerry	Kansxo	6000000	2019-01-15	IT
3	Philip	Jose	8900000	2019-02-05	Banking
4	John	Abraham	2000000	2019-02-25	Insurance
5	Michael	Mathew	2200000	2019-02-28	Finance
6	Alex	chreketo	4000000	2019-05-10	IT
7	Yohan	Soso	1230000	2019-06-20	Banking

   Basic Queries:

   • **Q1:** Retrieve the First_name and Last_name of all employees.
   • **Q2:** Find the total number of employees in the IT department.
   • **Q3:** List the details of employees who joined after 2019-02-01.

   Aggregation and Grouping:

   • **Q4:** What is the average salary of employees in the Finance department?
   • **Q5:** Find the maximum salary in the Banking department.
   • **Q6:** Calculate the total salary paid to employees in each department.

   Filtering and Sorting:

   • **Q7:** Retrieve the employee(s) with the highest salary.
   • **Q8:** List all employees with a salary greater than 3000000, ordered by Joining_date.

- **Q9:** Retrieve the details of employees whose Last_name starts with 'K'.

  Subqueries and Joins (if there are other tables):

- **Q14:** Find the second highest salary in the company.
- **Q15:** List employees who earn more than the average salary of the entire company.

  Updating and Deleting Records:

- **Q16:** Update the salary of employees in the Insurance department by a 10% increase.
- **Q17:** Delete records of employees who joined before 2019-02-01.