

## Assignments

1. Analyse the following tables & answer the queries

- **Sample Table Worker**

WORKER_ID	FIRST_NAME	LAST_NAME	SALARY	JOINING_DATE	DEPARTMENT
001	Monika	Arora	100000	2019-06-08	HR
002	Niharika	Verma	80000	2019-06-02	Admin
003	Vishal	Singhal	300000	2019-06-03	HR
004	Amithab	Singh	500000	2019-06-04	Admin
005	Vivek	Bhati	500000	2019-06-05	Admin
006	Vipul	Diwan	200000	2019-06-05	Account
007	Satish	Kumar	75000	2019-06-14	Account
008	Deepika	Chauhan	90000	2019-06-21	Admin

- **Sample Table - Bonus**

WORKER_REF_ID	BONUS_DATE	BONUS_AMOUNT
1	2020-06-02	5000
2	2020-06-03	3000
3	2020-06-04	4000
1	2020-06-05	4500
2	2020-06-05	3500

- **Sample Table - Title**

WORKER_REF_ID	WORKER_TITLE	AFFECTED FROM
1	Manager	2019-06-08
2	Executive	2019-06-02
8	Executive	2019-06-03
5	Manager	2019-06-08
4	Asst. Manager	2019-06-02
7	Executive	2019-06-03

- A. Write an SQL query to fetch “FIRST\_NAME” from the Worker table using the alias name as <WORKER\_NAME>.
- B. Write an SQL query to fetch “FIRST\_NAME” from the Worker table in upper case.
- C. Write an SQL query to fetch unique values of DEPARTMENT from Worker table.
- D. Write an SQL query to find the position of the alphabet (‘a’) in the first name column ‘Amitabh’ from the Worker table.

Notes:

- The INSTR method is case-sensitive by default.
  - Using a Binary operator will make INSTR work as the case-sensitive function.
- E. Write an SQL query to print the FIRST\_NAME from the Worker table after removing white spaces from the right side.
  - F. Write an SQL query to print the DEPARTMENT from the Worker table after removing white spaces from the left side.
  - G. Write an SQL query to print the FIRST\_NAME from the Worker table after replacing ‘a’ with ‘A’.
  - H. Write an SQL query to print the FIRST\_NAME and LAST\_NAME from the Worker table into a single column COMPLETE\_NAME. A space char should separate them.
  - I. Write an SQL query to print all Worker details from the Worker table order by FIRST\_NAME Ascending.

- J. Write an SQL query to print all Worker details from the Worker table order by FIRST\_NAME Ascending and DEPARTMENT Descending.
- K. Write an SQL query to print details of the Workers whose FIRST\_NAME contains 'a'.
- L. Write an SQL query to fetch worker names with salaries  $\geq 50000$  and  $\leq 100000$ .
- M. Write an SQL query to fetch the first 50% records from a table.
- N. Write an SQL query to show the last record from a table.
- O. Swapping the Values of first name and last name Columns in a worker table

*Link to the folder containing screenshot of solutions to the above queries*

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2. The EmployeeInfo Table is given below. Find out the answers to the following questions.

EmpID	EmpFname	EmpLname	Department	Salary
1	Karan	mehta	HR	300000
2	Rohit	Sharma	Admin	75000
3	Ankush	Rajput	Account	60000
4	Priyadarshini	Sharma	HR	500000
5	Sanket	Gupta	Developer	100000
6	Shruthi	Varyar	Admin	80000
7	Rohit	Sharma	Admin	75000

- A. Write a query to find the third highest salary from the EmployeeInfo table ?
- B. Write a query to find the third highest salary from the table without using TOP/LIMIT keyword ?
- C. Write a query to find the duplicate row in a table ?
- D. Write a query to calculate the even and odd records from a table ?
- E. Write a query to display the first and last record from the EmployeeInfo table ?
- F. How do you copy all rows of a table using query ?
- G. Write a query to retrieve the list of employees working in the same department ?
- H. Write a query to retrieve the last 3 records from the EmployeeInfo table ?
- I. Write a query to fetch details of an employee whose EmpLname ends with an alphabet 'A' and contains five alphabets ?

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3. You are the business owner and would like to obtain a sales report for category items and day of the week.

- Write an SQL query to report how many units in each category have been ordered on each day of the week.
- Return the result table ordered by category.
- The query result format is in the following example:

- **Orders table:**

order_id	customer_id	order_date	item_id	quantity
1	1	2020-06-01	1	10
2	1	2020-06-08	2	10
3	2	2020-06-02	1	5
4	3	2020-06-03	3	5
5	4	2020-06-04	4	1
6	4	2020-06-05	5	5
7	5	2020-06-05	1	10
8	5	2020-06-14	4	5
9	5	2020-06-21	3	5

- **Items table:**

item_id	item_name	item_category
1	LC Alg. Book	Book
2	LC DB. Book	Book
3	LC SmartPhone	Phone
4	LC Phone 2020	Phone
5	LC SmartGlass	Glasses
6	LC T-Shirt XL	T-Shirt

● **Result table:**

Category	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
<b>Book</b>	20	5	0	0	10	0	0
<b>Glasses</b>	0	0	0	0	5	0	0
<b>Phone</b>	0	0	5	1	0	0	10
<b>T-Shirt</b>	0	0	0	0	0	0	0

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4. The Employee table holds all employees. Every employee has an Id, and there is also a column for the department Id.

Id	Name	Salary	DepartmentId
1	Joe	85000	1
2	Henry	80000	2

3	Sam	60000	2
4	Max	90000	1
5	Janet	69000	1
6	Randy	85000	1
7	Will	70000	1

**The Department table holds all departments of the company:**

Id	Name
1	IT
2	Sales

- Write a SQL query to find employees who earn the top three salaries in each of the departments. For the above tables, your SQL query should return the following rows (order of rows does not matter).
- **Result Table :**

Department	Employee	Salary
IT	Max	90000
IT	Randy	85000
IT	Joe	85000
IT	Will	70000
Sales	Henry	80000
Sales	Sam	60000

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