Lab 01B: Intro to SQL

Objective

This lab introduces students to SQL syntax and basic SQL queries.

The students should be able to:

- Understand the use of WHERE clause with SELECT statement
- Understand Logical and Comparison operators
- Define data ranges using IN, NOT IN and BETWEEN
- Perform pattern matching using LIKE and wildcards
- Use ORDER BY to sort the data

Submission Requirements

Save and submit your script file. (file extension: .sql)
File naming convention to follow: **Lab01B_Name_ERP.sql**

To add comments to the script use - - (double hyphens) or enclose between /* Comment */. For this lab make sure you add comments that display the question you are solving.
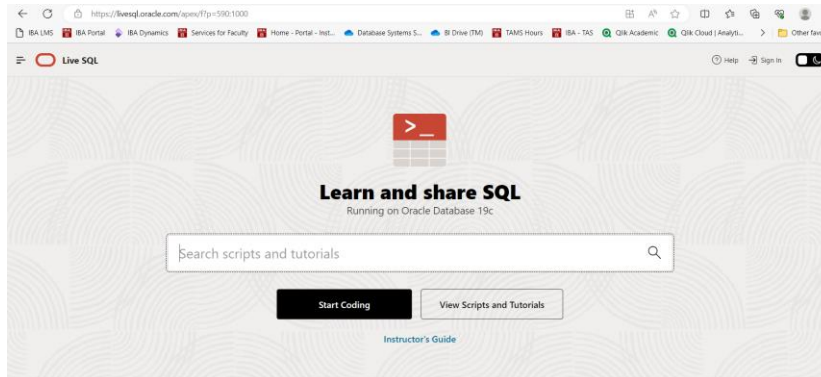
Example:

```
-- Q1
SELECT * FROM Employees;
```

Tasks

If you are having trouble with Oracle, proceed to LIVE SQL to start coding now:

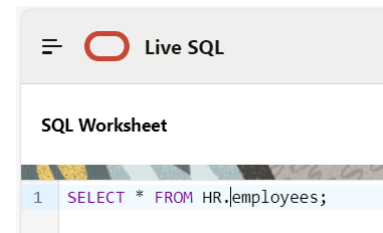Step 1: Start Coding Now - https://livesql.oracle.com/apex/

Step 2: Create an account
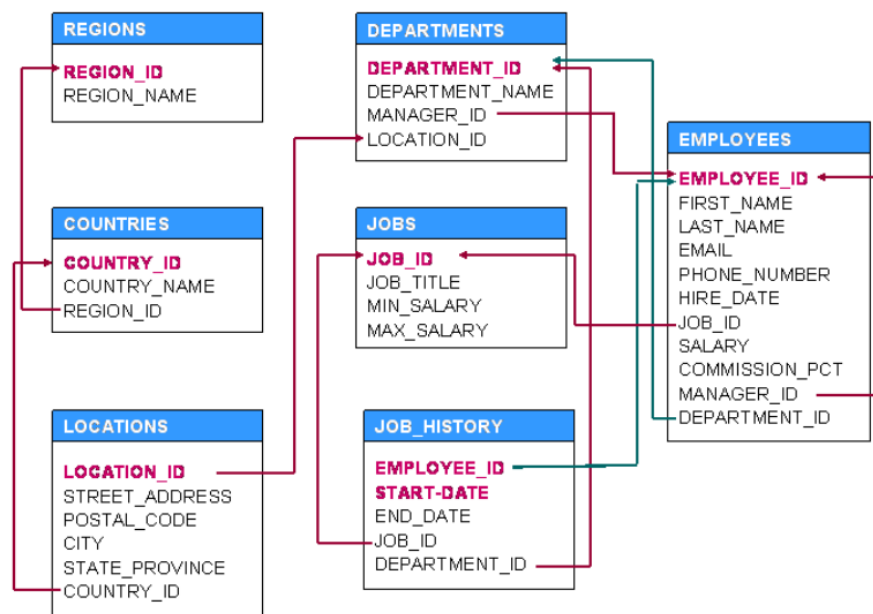
Step 3: Verify account

Step 4: Log in

Step 5: Schema > Human Resources (HR)

Step 6: SQL Worksheet

If you are working on LiveSQL, to start writing queries, you will access the tables in the HR table using the prefix "Hr." for example to access the HR table, write HR.EMPLOYEES.

HR Database Schema

SQL Queries

Write and Execute SQL queries for the following information needs:

1. Retrieve data of employees working in the department with DEPARTMENT_ID=40
2. Retrieve LAST_NAME and SALARY of all employees with JOB_ID as IT_PROG
3. Retrieve LAST_NAME and EMAIL of all employees who were hired on 07-JUN-02
4. Find the employees who joined after 1st June 2006 and whose department id > 60
5. Find the employees who joined after 1st June 2007 and before 1st December 2007 (using BETWEEN function)
6. Display the list of employees with SALARY less than $5,000
7. How many employees have salary less than $5,000.
8. Find all the employees where salary is greater than $10000 and less than $15000
9. Display list of all employees where MANAGER_ID is 100 or 101 or 201 using OR function
10. Display list of all employees where MANAGER_ID is 100 or 102 or 201 using IN function
11. Display list of all employees where JOB_ID is other than IT_PROG, SA_REP and FI_ACCOUNT
12. Find employees whose last name starts with letter 'A'
13. Find emloyees whose first name ends with letter 'R'
14. Display LAST_NAME , EMAIL_ID and PHONE_NUMBER of all employees whose FIRST_NAME starts with S or J.
15. Display list of employees where the second character in FIRST_NAME is 'o'.
16. Display the list of all employees who are not part of any department
17. How many employees are there who do not have a manager?
18. Display list of all employees which are not getting any comission.
19. Display the list of employees whose JOB_ID is SA_REP and SALARY is more than $10,000
20. Display the list of employees whose JOB_ID is SA_REP or SALARY less than $11,000
21. Display list of employees who have JOB_ID='SA_REP' OR (JOB_ID='AD_PRES' AND SALARY> $15,000).
22. Display list of employees who have (JOB_ID='SA_REP' OR JOB_ID='AD_PRES') AND SALAY >$15,000.
23. Find all the employees ordered by email in descending order
24. Display the list of all employee sorted in ascending order by EMPLOYEE_ID
25. Display list of all employee sorted in DESC order by EMPLOYEE_ID
26. Display JOB_ID , FIRST_NAME , and HIRE_DATE sorted by JOB_ID (DESC) then FIRST_NAME(ASC)
27. Display list of employees sorted by sixth column