

**EXPERIMENT NO: - 5**

**AIM:** - Implementation of the advanced ad-hoc query applications in a relational database is using SQL.

**Problem Definition:**

Given the database which was established in Exp. No. 4, the global conceptual schema for which is described as below;

**EMP** (ENUM, NAME, SAL, TAX, MGR, DNUM)

**DEPT** (DNUM, NAME, MGR, AREA)

**SUPPLIER** (SNUM, NAME, CITY)

**SUPPLY** (PNUM, SNUM, DNUM, QTY)

Execute the following ad-hoc queries using SQL. It is assumed that the database exists in the storage.

**Queries:**

1. Write the SQL code that will list all employees in the ascending sequence of their department number and on the descending sequence of their yearly earnings.
2. Write the SQL code that will list for the employees their name, department to which they belong and gross earnings, which do not have the tax liability.
3. Write the SQL code to compute the total quantity of supply made by each supplier. Your result must include the fields namely SNUM, NAME, and TOT\_QTY.  
(TOT\_QTY is the total quantity supplied by the supplier)
4. Write the SQL code that will list records of all employees whose name contains the string 'Jyoti' and whose earnings are above 900000.00.
5. Write the SQL code to create a temporary relation EMP\_DEPT- VIEW from EMP relation and the DEPT relation. This temporary relation must contain the attributes namely ENUM, EMP\_NAME (NAME in EMP), DEPT\_NAME (NAME in DEPT) and AREA.
6. Write the SQL code that will display the contents of EMP DEPT VIEW in the ascending sequence of department numbers.

7. Write the SQL code that will list the records of the employees whose annual earnings are between 140000.00 and 500000.00 but who do not have tax liability.
8. Write the SQL code that will compute the average tax paid by the employee of each department.

Your result must contain the following attribute DNUM, D\_NAME (NAME in DEPT), AVG TAX.

9. Write a SQL code to add a record into the SUPPLY relation. The record contents are  
**'ST99', 125, 25, 800**

This record requires an associated record insertion in the DEPT and the SUPPLIER relation. Assume supplier name as 'Eureka Solutions' situated in the city of 'DLH', and the department named 'Administration' is situated in the SOUTH area of the company.

10. Write the SQL commands to display the whole database contents (that includes Listing of EMP, DEPT, SUPPLY and SUPPLIER) and then save the table contents to disk storage.