**Database System & Web Lab (15B17CI372)**

**SQL-Joins and Nested Queries**

**Week 8**

| **NOTICE:**  Lab Test 1 is scheduled from **07/10/2022 to 12/10/2022** in your respective lab timing.  Syllabus: SQL |
| --- |

A mobile manufacturing start-up has hired you to maintain their databases having the following specifications:

1. The company procures different components from different vendors and stores the vendor details in the Vendors table having *vid:* integer, v*name:* string, *vaddress:* string as its constituent attributes. The vid acts as a primary key for the Vendors relation.
2. The component details are listed in the Components table with *cid:* integer, *cname:* string, *types:* string as its constituent attributes. The cid acts as a primary key for the Components relation.
3. The company also maintains a table called Catalog that reflects the cost (cost is a real number) of each component and their corresponding vendor. The table is designed in such a way so as to minimize redundancy.

Create a database containing the above-mentioned relations and populate them with some logical data. Now, design the following queries in SQL using either **JOIN or NESTED queries** so as to retrieve the desired output:

1. Find the cnames of components for which there is some vendors.

2. Find the name of vendors who provide some camera components.

3. Find the vid of vendors who provide some camera components and some radio components.

4. Find the vid of vendors who supply some antenna component or are located at Noida.

5. Find the type and cost of components provided by vendor “Samsung”

6. Find the name of most costly component.

7. Find the vendor who has the cheapest proximity sensor.

8. Find the vendor that manufactures the most number of components.

9. Display the vendors whose have some components cheaper than 100.

10. Display the components that are not manufactured by Sony. (Here Sony is the vendor).

11. Display the distinct type of components that the company acquires from “Foxcon”. (Here Sony is the vendor).

12. Display the components that manufactured by “Samsung” but not by “Sony”. (Here Samsung & Sony are the vendor).