A.Y. 2023-2022

Class: SE-ITA/B,

Semester: III Subject:

Structured Query Lab

Experiment – 6: Perform joins and views on the chosen System

1. **Aim:** To Perform joins and views on the chosen system.

2. **Objective:**
   - After performing the experiment, the students will be able to formulate and use various join operation to manipulate database and retrieve data
   - Use views to have a different view of data from the database
   - Construct triggers to store, manipulate data in database

3. **Outcome:** L303.4: To Write queries in SQL to retrieve any type of information from a database.

4. **Prerequisite:** Understanding of various SQL JOIN operations, trigger, with notations and terminologies along with sample syntax.

5. **Requirements:** PC, Oracle 11g/SQL Server 2008 R2, Microsoft Word, Internet

6. **Pre-Experiment Exercise:**
   Brief Theory :(To be hand written)
   1. Explain what are Joins? Give example of inner and outer join
   2. Explain with example what are views
   3. Difference between table and View.

7. **Laboratory Exercise**
   A. Procedure:
   i) Open SQL server 2008 using below login credentials:
   Username: Password: Lab306b
   ii) Use existing database created by you or
   iii) Construct your own database
   iv) Construct tables for any two to three entities from your chosen case study v) Insert at least 8 to 10 records for each tables
   vi) Execute below queries:

For Joins (Any three)

Use INNER JOIN example

```
SELECT Orders.OrderID, Customers.CustomerName,
Orders.OrderDate FROM Orders
```

```
INNER JOIN Customers ON
Orders.CustomerID=Customers.CustomerID;
```

LEFT OUTER JOIN example

```
SELECT Customers.CustomerName,
Orders.OrderID FROM Customers
LEFT JOIN Orders ON Customers.CustomerID =
Orders.CustomerID ORDER BY
Customers.CustomerName;
```

RIGHT OUTER JOIN example

```
SELECT Orders.OrderID, Employees.LastName,
Employees.FirstName FROM Orders
RIGHT JOIN Employees ON Orders.EmployeeID =
Employees.EmployeeID ORDER BY Orders.OrderID;
```

FULL OUTER JOIN example

```
SELECT Customers.CustomerName,
Orders.OrderID FROM Customers
FULL OUTER JOIN Orders ON
Customers.CustomerID=Orders.CustomerID ORDER BY
Customers.CustomerName;
```

VIEWS(Give two examples)

CREATE View

```
CREATE VIEW [Brazil Customers] AS
SELECT CustomerName, ContactName
FROM Customers
WHERE Country = "Brazil";

SELECT * FROM [Products Above AveragePrice];
 Example 2 :
CREATE TABLE product (qty INT, price INT);
INSERT INTO product VALUES(3, 50), (5, 60);

select * from product;

CREATE VIEW product_data AS SELECT qty, price, qty*price AS value FROM
product;
SELECT * FROM product_data;

SELECT * FROM product_data WHERE qty = 5;

drop view product_data;
```

B. Conclusion:

1. Write what was performed in the experiment
2. Mention few applications of what was studied.
3. Write the significance of the studied topic

8.Result/Observation/Program code: Attach all queries executed code with proper Output

C. References:

[1] Elmasri and Navathe, “Fundamentals of Database Systems”, 5th Edition, PEARSON Education.
[2] Korth, Silberchatz, Sudarshan, “Database System Concepts”, 6th Edition, McGraw – Hill
[3] https://www.w3schools.com/sql/sql_default.asp