**Bahria University,**

**Karachi Campus**



**LAB EXPERIMENT NO.**

**04**

**LIST OF TASKS**

|  |  |
| --- | --- |
| TASK NO | OBJECTIVE |
|  | All Joins In SQL |
| **01** | **Display Product Name and its Category Name where Category Name starts with B.** |
| **02** | **Display Titles and their quantity (Hint Pubs database, table title and sales, left join)** |
| **03** | **Use Right join to display Book Title and publisher Names. Write down the reason for any null values if coming in title column.** |
| **04** | **Use Right join to display those publishers where title is null.** |
| **05** | **Use self-join to display Publishers name where city is same (Publisher id should be different) Sample example** |
| **06** | **Use cross join (Cartesian join) to Display Book Title and Publisher Name.** |
| **07** | **Use two full joins to Display Product Name, Category Name and Supplier Name (Hint: Below Example)** |
| **08** | **Use full join to display the name of Supplier for the product starting with letter C (Hint: Northwind)** |
| **09** | **Get shipper’s Company Name for an order using inner join. (Display only orderID from orders and comapnayName from Customers table)** |
| **10** | **Count no of Products’s against each suppliers name. list only those products whose count is greater than 3** |
| **11** | **Display Region ID, Region Description, Territories Description and (inner join with table Territories and Region)** |
| 12 | Display Company Name and Total orders placed by the company (Table: orders, customer, use inner join, group by) |

**Submitted On:**

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**(Date: DD/MM/YY)**

**Task No. 1:** Display Product Name and its Category Name where Category Name starts with B

**Solution:**

select ProductName,CategoryName from Categories left join Products on Categories.CategoryID = Products.CategoryID where CategoryName like 'B%'

**Output:**

Graphical user interface, text, application

Description automatically generated

Window

**Task No. 2:** Display Titles and their quantity (Hint Pubs database, table title and sales, left join)

**Solution:** select A.title,B.qty from titles as A left join sales as B on

A.title\_id=b.title\_id

**Output:**

**Table

Description automatically generated**

Window

**Task No. 3:** Use Right join to display Book Title and publisher Names (Hint pubs Database, Table Title and Publisher) Write down the reason for any null values if coming in title column.

**Solution:** select A.title,B.pub\_name from titles as A right join publishers as B on A.pub\_id=b.pub\_id

**Reason**

The reason for null values in the title column is because there may be publishers without any titles, and a right join will still include those publisher rows but the title column will have null values.

**Output:**

**Graphical user interface, table

Description automatically generated**

Window

**Task No. 4:** User Right join to display those publishers where title is null.

**Solution:** select A.title,B.pub\_name from titles as A right join publishers as B on A.pub\_id=b.pub\_id where A.title is null

**Output:**

**Graphical user interface, text, application

Description automatically generated**

Window

**Task No. 5:** Use self-join to display Publishers name where city is same (Publisher id should be different) Sample example

Graphical user interface, text, chat or text message

Description automatically generated

**Solution:** select B.pub\_name,a.pub\_name,A.country from publishers as A , publishers as B where A.pub\_id<>b.pub\_id and A.country=b.country

**Output:**

**Graphical user interface, application, table

Description automatically generated**

Window

**Task No. 6:** Use cross join (Cartesian join) to Display Book Title and Publisher Name.

**Solution:** select A.title,b.pub\_name from titles as A ,publishers as B

**Output:**

Graphical user interface, application, table

Description automatically generated

Window

**Task No. 7:** Use two full joins to Display Product Name, Category Name and Supplier Name

**Solution:** select ProductName,CategoryName,ContactName from Products full join Categories on Products.CategoryID=Categories.CategoryID full join Suppliers on Suppliers.SupplierID=Products.SupplierID

**Output:** Graphical user interface, text, application, table

Description automatically generated

Window

**Task No. 8:** Use full join to display the name of Supplier for the product starting with letter C (Hint: Northwind)

**Solution:** select ProductName,ContactName from Products full join Suppliers on Suppliers.SupplierID = Products.SupplierID where ProductName like 'C%'

**Output:**

Graphical user interface, text, application, Word

Description automatically generated

Window

**Task No. 9:** Get shipper’s Company Name for an order using inner join. (Display only orderID from orders and comapnayName from Customers table)

**Solution:** select Orders.OrderID, CompanyName from Orders inner join Customers on Orders.CustomerID = Customers.CustomerID

**Output:**

Graphical user interface, application, Word

Description automatically generated

Window

**Task No. 10:** Count no of Products’s against each suppliers name. list only those products whose count is greater than 3

**Solution:** select COUNT(ProductName)as [No Of Products],Suppliers.ContactName from Products inner join Suppliers on Products.SupplierID= Suppliers.SupplierID group by ContactName having COUNT(ProductName)>3

**Output:**

Graphical user interface

Description automatically generated with medium confidence

Window

**Task No. 11:** Display Region ID, Region Description, Territories Description and (inner join with table Territories and Region)

**Solution:** select Region.RegionID,Region.RegionDescription,Territories.TerritoryDescription from Region inner join Territories on Region.RegionID=Territories.RegionID

**Output:**

Graphical user interface, application, table, Word

Description automatically generated

Window

**Task No. 12:** Display Company Name and Total orders placed by the company (Table: orders, customer, use inner join, group by)

**Solution:** select Customers.CompanyName, count(orders.OrderID) as [Total Order Placed] from Customers inner join Orders on Customers.CustomerID=orders.CustomerID group by Customers.CompanyName

Graphical user interface, application, table

Description automatically generated**Output:**

Window