1. **INNER JOIN Query:**

```
SELECT e.EmployeeID,
e.FirstName,
 e.LastName,
e.Department,
e.Salary,
p.ProjectID,
p.ProjectName,
p.Budget,
p.Status
FROM Employees e
INNER JOIN Projects p
ON e.EmployeeID = p.EmployeeID;
```

Output:

Employee ID	FirstName	LastName	Department	Salary	ProjectID	ProjectName	Budget	Status
1	John	Doe	IT	70000	101	AI Development	100000	Completed
1	John	Doe	IT	70000	103	Cybersecurity Audit	75000	Pending
2	Alice	Smith	HR	60000	102	Employee Training	50000	Ongoing
3	Bob	Johnson	Finance	75000	104	Financial Analysis	90000	Ongoing
5	Emma	Wilson	Sales	65000	105	Market Expansion	65000	Completed
6	Michael	Clark	Finance	80000	106	Risk Management	80000	Pending

2. **LEFT JOIN Query:**

```
SELECT e.EmployeeID,
e.FirstName,
 e.LastName,
e.Department,
e.Salary,
p.ProjectID,

p.ProjectName,

p.Budget,
p.Status

FROM Employees e

LEFT JOIN Projects p

ON e.EmployeeID = p.EmployeeID;
```

Output:

Employee ID	FirstName	LastName	Department	Salary	ProjectID	ProjectName	Budget	Status
1	John	Doe	IT	70000	101	AI Development	100000	Completed
1	John	Doe	IT	70000	103	Cybersecurity Audit	75000	Pending
2	Alice	Smith	HR	60000	102	Employee Training	50000	Ongoing
3	Bob	Johnson	Finance	75000	104	Financial Analysis	90000	Ongoing
4	David	Brown	IT	72000	NULL	NULL	NULL	NULL
5	Emma	Wilson	Sales	65000	105	Market Expansion	65000	Completed
6	Michael	Clark	Finance	80000	106	Risk Management	80000	Pending

3. **RIGHT JOIN Query:**

```
SELECT
p.ProjectID,
p.ProjectName,
p.Budget,
p.Status,
 e.EmployeeID,
e.FirstName,
e.LastName,
e.Department,
e.Salary
FROM Projects p
RIGHT JOIN Employees e ON e.EmployeeID = p.EmployeeID;
```

Output:

Employee ID	FirstName	LastName	Department	Salary	ProjectID	ProjectName	Budget	Status
1	John	Doe	IT	70000	101	AI Development	100000	Completed
1	John	Doe	IT	70000	103	Cybersecurity Audit	75000	Pending
2	Alice	Smith	HR	60000	102	Employee Training	50000	Ongoing
3	Bob	Johnson	Finance	75000	104	Financial Analysis	90000	Ongoing
5	Emma	Wilson	Sales	65000	105	Market Expansion	65000	Completed
6	Michael	Clark	Finance	80000	106	Risk Management	80000	Pending

4. **FULL OUTER JOIN Query:**

```
SELECT e.EmployeeID,
e.FirstName,
e.LastName,
e.Department,
e.Salary,
p.ProjectID,
p.ProjectName,
p.Budget,
p.Status
FROM Employees e
FULL OUTER JOIN Projects p ON e.EmployeeID = p.EmployeeID;
```

Output:

Employee ID	FirstName	LastName	Department	Salary	ProjectID	ProjectName	Budget	Status
1	John	Doe	IT	70000	101	AI Development	100000	Completed
1	John	Doe	IT	70000	103	Cybersecurity Audit	75000	Pending
2	Alice	Smith	HR	60000	102	Employee Training	50000	Ongoing
3	Bob	Johnson	Finance	75000	104	Financial Analysis	90000	Ongoing
4	David	Brown	IT	72000	NULL	NULL	NULL	NULL
5	Emma	Wilson	Sales	65000	105	Market Expansion	65000	Completed
6	Michael	Clark	Finance	80000	106	Risk Management	80000	Pending

5. **UNION Query:**

```
SELECT DISTINCT City AS Location
FROM Employees
UNION
SELECT DISTINCT Status AS Location FROM Projects;
```

Output:

Location
New York
Los Angeles
Toronto
London
Sydney
Completed
Ongoing
Pending

6. **UNION ALL Query:**

```
SELECT DISTINCT City AS Location
FROM Employees
UNION ALL
SELECT DISTINCT Status AS Location FROM Projects;
```

Output:

Location
New York
Los Angeles
Toronto
London
Sydney
New York
Completed
Ongoing
Pending
Completed
Ongoing
Pending

7. **Employees earning more than 70000 Query:**

```
SELECT EmployeeID,
FirstName,
LastName,
Department,
Salary
FROM Employees
WHERE Salary > 70000;
```

Output:

EmployeeID	FirstName	LastName	Department	Salary
3	Bob	Johnson	Finance	75000
4	David	Brown	IT	72000
6	Michael	Clark	Finance	80000

8. **Employees in IT or Finance Query:**

```
SELECT EmployeeID,
FirstName,
LastName,
Department,
Salary
FROM Employees
WHERE Department IN ('IT', 'Finance');
```

Output:

EmployeeID	FirstName	LastName	Department	Salary
1	John	Doe	IT	70000
3	Bob	Johnson	Finance	75000
4	David	Brown	IT	72000
6	Michael	Clark	Finance	80000

9. **Projects not completed Query:**

```
SELECT ProjectID,
ProjectName,
Budget,
Status
FROM Projects
WHERE Status != 'Completed';
```

Output:

ProjectID	ProjectName	Budget	Status
102	Employee Training	50000	Ongoing
103	Cybersecurity Audit	75000	Pending
104	Financial Analysis	90000	Ongoing
106	Risk Management	80000	Pending

10. **Projects > 70000 and not completed Query:**

```
SELECT ProjectID,
ProjectName,
Budget, Status
FROM Projects
WHERE Budget > 70000 AND Status != 'Completed';
```

Output:

ProjectID	ProjectName	Budget	Status
103	Cybersecurity Audit	75000	Pending
104	Financial Analysis	90000	Ongoing
106	Risk Management	80000	Pending

11. **Employees from New York or Toronto (Salary Desc) Query:**

```
SELECT EmployeeID,
FirstName,
LastName,
Department,
Salary,
City
FROM Employees
WHERE City IN ('New York', 'Toronto')
ORDER BY Salary DESC;
```

Output:

EmployeeID	FirstName	LastName	Department	Salary	City
6	Michael	Clark	Finance	80000	New York
3	Bob	Johnson	Finance	75000	Toronto
1	John	Doe	IT	70000	New York

12. **Top 3 highest-paid employees Query:**

```
SELECT EmployeeID,
FirstName,
LastName,
Department,
Salary
FROM Employees
ORDER BY Salary DESC
LIMIT 3;
```

Output:

EmployeeID	FirstName	LastName	Department	Salary
6	Michael	Clark	Finance	80000
3	Bob	Johnson	Finance	75000
4	David	Brown	IT	72000

13. **Total salary per department (desc) Query:**

```
SELECT Department, SUM(Salary) AS TotalSalary
FROM Employees
GROUP BY Department
ORDER BY TotalSalary DESC;
```

Output:

Department	TotalSalary
Finance	155000
IT	142000
Sales	65000
HR	60000

14. Avg salary per city > 65000 Query:

```
SELECT City, AVG(Salary) AS AverageSalary
FROM Employees
GROUP BY City
HAVING AVG(Salary) > 65000;
```

Output:

City	AverageSalary
New York	75000
Toronto	75000
London	72000

15. **Departments with more than 1 employee Query:**

```sql
SELECT Department, COUNT(EmployeeID) AS EmployeeCount
FROM Employees
GROUP BY Department
HAVING COUNT(EmployeeID) > 1;
```

Output:

Department	Employee Count
IT	2
Finance	2

16. **Statuses with at least 2 projects Query:**

```sql
SELECT Status, COUNT(ProjectID) AS ProjectCount
FROM Projects
GROUP BY Status
HAVING COUNT(ProjectID) >= 2;
```

Output:

Status	ProjectCount
Completed	2
Ongoing	2
Pending	2

17. **Employees with total project budget > 150000 Query:**

```sql
SELECT e.EmployeeID,
e.FirstName,
e.LastName,
SUM(p.Budget) AS TotalProjectBudget
FROM Employees e
JOIN Projects p
ON e.EmployeeID = p.EmployeeID
GROUP BY e.EmployeeID, e.FirstName, e.LastName
HAVING SUM(p.Budget) > 150000;
```

Output:

EmployeedID	FirstName	LastName	TotalProjectBudget
1	John	Doe	175000