**Lab5**

1. **Simple Subquery: Write a query to find all courses with a duration longer than the average course duration.**
2. **Correlated Subquery: Find the names of students who are older than the average age of students in their department.**
3. **Subquery in FROM Clause: Create a list of departments and the number of instructors in each, using a subquery.**
4. **Subquery in SELECT Clause: For each student, display their name and the number of courses they are enrolled in.**
5. **Multiple Subqueries: Find the name and salary of the instructor who earns more than the average salary of their department.**
6. **UNION: Combine the names of all students and instructors into a single list.**
7. **UNION with Condition: Create a list of courses that either have a duration longer than 50 hours or are taught by an instructor named 'Ahmed'.**
8. **Subquery with EXISTS: List all departments that have at least one course with a duration over 60 hours.**
9. **Nested Subqueries: Display the names of students who are taking courses in the same department they belong to.**
10. **TOP Clause: Select the top 5 highest-graded students in the 'SQL Server' course.**
11. **TOP with Ties: Show the top 3 departments with the most courses, including ties.**
12. **Subquery with IN: Find all students who are enrolled in 'C Programming' or 'Java'.**
13. **Complex UNION: Create a list of all courses and instructors, showing course names and instructor names in separate columns.**
14. **Subquery in WHERE Clause: Identify students who are taking courses that are longer than the average duration of all courses.**
15. **Combining TOP and Subquery: Display the top 10% of courses based on the number of students enrolled.**