Experiment 6:

Title: Study and Implementation of

1)Group by and Having Clause
2)Order by Clause
3)Indexing

Schema: Hospital Management System

Tables:

1. **Patients Table**

Column Name
PatientID
FirstName
LastName
Age
Gender
DoctorID

2. **Doctors Table**

Column Name
DoctorID
DoctorName
Specialty

3. **Appointments Table**

Column Name
AppointmentID
PatientID
DoctorID
AppointmentDate
Fee

Questions Using GROUP BY, HAVING, ORDER BY, and Indexing:

1. Find Total Appointment Fees for Each Doctor (Using GROUP BY)

Retrieve the total appointment fees collected by each doctor. Use GROUP BY to calculate the sum of appointment fees for each doctor.

2. Retrieve Doctors with Total Fees Greater Than $750(Using HAVING)

Modify the previous query to only display doctors who have collected more than $750 in appointment fees. Use the HAVING clause to filter the results.

3. List Appointments Sorted by Appointment Date and Fee (Using ORDER BY)

Display all appointments along with the patient and doctor names, sorted first by AppointmentDate in ascending order, and within the same date, sort by Fee in descending order.

4. Create an Index on Appointments Table for Faster Search by Appointment Date

Since searches are often done based on appointment dates, create an index on the AppointmentDate column to improve query performance.

5. Find the Most Frequently Visited Doctors (Using GROUP BY and ORDER BY)

List the doctors who have been visited by the highest number of patients, along with the number of patients they've treated. Sort the result by the number of patients in descending order.