Task2

Project: Student Database Management System(PostgreSQL)

Objective: Design and implement a student database management system using PostgreSQL

that allows storing and retrieving student information efficiently. The project will include the

following tasks:

1. Database Setup

Create a database named "student\_database."

Create a table called " student\_table " with the following columns: Student\_id (integer),

Stu\_name (text), Department (text), email\_id (text ),Phone\_no (numeric), Address (text),

Date\_of\_birth (date), Gender (text), Major (text), GPA (numeric),Grade (text) should be A,B,C

etc.2. Data Entry

Insert 10 sample records into the "student\_table" using INSERT command.

3. Student Information Retrieval

Develop a query to retrieve all students' information from the "student\_table" and sort them in

descending order by their grade.

4. Query for Male Students:

.Implement a query to retrieve information about all male students from the "student\_table."

5. Query for Students with GPA less than 5.0

Create a query to fetch the details of students who have a GPA less than 5.0 from the

"student\_table."

6. Update Student Email and Grade

Write an update statement to modify the email and grade of a student with a specific ID in the

"student\_table."

7. Query for Students with Grade "B"

Develop a query to retrieve the names and ages of all students who have a grade of "B" from

the "student\_table."

8. Grouping and Calculation

Create a query to group the "student\_table" by the "Department" and "Gender" columns and

calculate the average GPA for each combination.

9. Table Renaming

Rename the "student\_table" to "student\_info" using the appropriate SQL statement.

10. Retrieve Student with Highest GPA

Write a query to retrieve the name of the student with the highest GPA from the

"student\_info" table.