Task 2

Project: Student Database Management System (Postgresql)

Objective: Design and implement 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.

1. Data Entry:

Insert 10 sample records into the “student\_table” using INSERT commands

1. Student Information Retrieval:

Develop a query to retruve all students informations from the “student\_tabel” and sort them in descending order by their grade.

1. Query for male Students:

Implement a query to retrieve all student’s information about all male students from the “student\_table.”

1. 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.”

1. 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”

1. 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”.

1. 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.

1. Table Renaming:

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

1. Retrieve Student with Highest GPA

Write a query to retrieve the name of the student with the highest GPA from the “student\_info” table.