CREATE DATABASE student\_database;

\c student\_database;

CREATE TABLE student\_tablee (

Student\_id serial PRIMARY KEY,

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

);

-- 3. Data Entry

INSERT INTO student\_table (Stu\_name, Department, email\_id, Phone\_no, Address, Date\_of\_birth, Gender, Major, GPA, Grade)

VALUES

('Amit Kumar', 'Computer Science', 'amit@example.com', 9876543210, '15A Malviya Nagar, New Delhi', '1998-05-25', 'Male', 'Computer Science', 4.0, 'A'),

('Priya Sharma', 'Mathematics', 'priya@example.com', 9876543211, '22B Gomti Nagar, Lucknow', '1999-09-20', 'Female', 'Math', 3.5, 'B'),

('Rajesh Patel', 'Physics', 'rajesh@example.com', 7777777777, '10C Juhu Beach, Mumbai', '1997-03-10', 'Male', 'Physics', 3.7, 'B'),

('Sneha Verma', 'Biology', 'sneha@example.com', 8888888888, '5A Civil Lines, Jaipur', '2000-02-15', 'Female', 'Biology', 4.2, 'A'),

('Prakash Singh', 'Chemistry', 'prakash@example.com', 9999999999, '7B Karol Bagh, New Delhi', '1996-11-30', 'Male', 'Chemistry', 3.9, 'B'),

('Neha Gupta', 'History', 'neha@example.com', 7777888888, '14C Malabar Hill, Mumbai', '1998-07-20', 'Female', 'History', 3.6, 'C'),

('Vikram Mehta', 'Economics', 'vikram@example.com', 5555555555, '9A Connaught Place, New Delhi', '1995-12-05', 'Male', 'Economics', 4.4, 'A'),

('Shreya Agarwal', 'Psychology', 'shreya@example.com', 6666666666, '18B Banjara Hills, Hyderabad', '2001-03-18', 'Female', 'Psychology', 3.8, 'B');

-- 3. Student Information Retrieval

SELECT \*

FROM student\_table

ORDER BY Grade DESC;

-- 4. Query for Male Students

SELECT \*

FROM student\_table

WHERE Gender = 'Male';

-- 5. Query for Students with GPA less than 5.0

SELECT \*

FROM student\_table

WHERE GPA < 5.0;

-- 6. Update Student Email and Grade

UPDATE student\_table

SET email\_id = 'newemail@example.com', Grade = 'A'

WHERE Student\_id = 1; -- Update the student with the specific ID

-- 7. Query for Students with Grade "B"

--SELECT Stu\_name, EXTRACT(YEAR FROM age(Date\_of\_birth)) AS Age

--FROM student\_table

--WHERE Grade = 'B';

-- 8. Grouping and Calculation

SELECT Department, Gender, AVG(GPA) AS Average\_GPA

FROM student\_table

GROUP BY Department, Gender;

-- 9. Table Renaming

ALTER TABLE student\_table RENAME TO student\_infooo;

-- 10. Retrieve Student with Highest GPA

SELECT Stu\_name

FROM student\_info

ORDER BY GPA DESC

LIMIT 1;



