Assignment – 2

DBMS

Question 1:

CREATE DATABASE SchoolManagement;

USE SchoolManagement;

Here we have created a database and have used it to create a table inside it.

Question 2:

CREATE TABLE Students (

student\_id INT PRIMARY KEY,

name VARCHAR(255),

age INT CHECK (age BETWEEN 15 AND 25),

gender VARCHAR(10),

email VARCHAR(255) UNIQUE,

grade VARCHAR(2), -- Assuming grades are represented as letters (A, B, C, etc.)

address VARCHAR(255),

course\_id INT,

FOREIGN KEY (course\_id) REFERENCES Courses(course\_id)

);

CREATE TABLE Courses (

course\_id INT PRIMARY KEY,

course\_name VARCHAR(255),

credits DECIMAL(2,1),

instructor VARCHAR(255)

);

Here we have created two tables named “Students” and “Courses”

**Question 3:**

ALTER TABLE Students

ADD CONSTRAINT pk\_students PRIMARY KEY (student\_id);

ALTER TABLE Courses

ADD CONSTRAINT pk\_courses PRIMARY KEY (course\_id);

-Foreign key

ALTER TABLE Students

ADD CONSTRAINT fk\_course\_id FOREIGN KEY (course\_id) REFERENCES Courses(course\_id);

- Checking constraint

ALTER TABLE Students

ADD CONSTRAINT chk\_age CHECK (age BETWEEN 15 AND 25);

-- Unique constraint

ALTER TABLE Students

ADD CONSTRAINTuq\_email **UNIQUE** (email);

**Question 4:**

ALTER TABLE Students

ADD COLUMN phone\_number VARCHAR(20);

-- Modifying grade column to allow NULL values

ALTER TABLE Students

MODIFY COLUMN grade VARCHAR(2) NULL;

-- Changing the data type of credits column in Courses table

ALTER TABLE Courses

MODIFY COLUMN credits DECIMAL(2,1);

-- Renaming address column to home\_address in Students table

ALTER TABLE Students

CHANGE COLUMN address home\_address VARCHAR(255);

**Question 5:**

-- Task 5: Dropping and Renaming

-- Drop Courses table

DROP TABLE Courses;

-- Rename Students table to Learners

ALTER TABLE Students

RENAME TO Learners;