**SQL Queries - school\_db**

-- Creating the school\_db database

CREATE DATABASE school\_db;

-- Using the created database

USE school\_db;

-- Creating tables \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

-- Creating Student table

CREATE TABLE student (

Student\_id int NOT NULL,

First\_name varchar(255) NOT NULL,

Last\_name varchar(255) NOT NULL,

Address varchar(255) NOT NULL,

Mobile char(10),

Fixed\_line char(10),

Date\_of\_birth date NOT NULL,

Photo longblob,

--Parent\_name varchar(255) NOT NULL,

CONSTRAINT pk\_student PRIMARY KEY (Student\_id)

);

-- Creating parent/Guardian table

CREATE TABLE parent(

Parent\_name varchar(255),

NIC varchar(15) NOT NULL,

Email varchar(255),

Contact\_no char(10),

Student\_id int NOT NULL,

CONSTRAINT fk\_parent01 FOREIGN KEY (Student\_id) REFERENCES student (Student\_id) ON DELETE CASCADE ON UPDATE CASCADE,

CONSTRAINT pk\_parent PRIMARY KEY (Parent\_name,Student\_id)

);

-- Creating FOREIGN KEY between Student and Parent tables

--ALTER TABLE Student

ADD CONSTRAINT fk\_student01 FOREIGN KEY (Parent\_name) REFERENCES parent(Parent\_name) ON DELETE SET NULL ON UPDATE CASCADE;

-- Creating Subject table

CREATE TABLE subject(

Subject\_id char(7) NOT NULL,

Grade int NOT NULL,

Subject\_name varchar(255) NOT NULL,

KEY (Grade), -- add to fix error

CONSTRAINT pk\_subject PRIMARY KEY (Subject\_id,Grade)

);

-- Creating Teacher table

CREATE TABLE teacher(

Teacher\_id char(15) NOT NULL,

Teacher\_name varchar(255) NOT NULL,

CONSTRAINT pk\_teacher PRIMARY KEY (Teacher\_id)

);

-- Creating Teacher\_Subject table

CREATE TABLE teacher\_subject(

Teacher\_id char(15) NOT NULL,

Subject\_id char(7) NOT NULL,

Grade int NOT NULL,

CONSTRAINT fk\_teacher\_id01 FOREIGN KEY (Teacher\_id) REFERENCES teacher (Teacher\_id) ON UPDATE CASCADE ON DELETE CASCADE,

CONSTRAINT fk\_subject\_id01 FOREIGN KEY (Subject\_id) REFERENCES subject (Subject\_id)ON DELETE CASCADE ON UPDATE CASCADE,

CONSTRAINT fk\_grade01 FOREIGN KEY (Grade) REFERENCES subject (Grade) ON DELETE CASCADE ON UPDATE CASCADE,

CONSTRAINT pk\_teacher\_subject PRIMARY KEY (Teacher\_id,Subject\_id,Grade)

);

-- Creating Student\_Subject table

CREATE TABLE student\_subject(

Student\_id int NOT NULL,

Subject\_id char(7) NOT NULL,

Grade int NOT NULL,

Marks char(5),

Term int,

CONSTRAINT fk\_student\_id01 FOREIGN KEY (Student\_id) REFERENCES student (Student\_id) ON DELETE CASCADE ON UPDATE CASCADE,

CONSTRAINT fk\_subject\_id02 FOREIGN KEY (Subject\_id) REFERENCES subject (Subject\_id) ON DELETE SET NULL ON UPDATE CASCADE,

CONSTRAINT fk\_grade02 FOREIGN KEY (Grade) REFERENCES subject (Grade) ON DELETE SET NULL ON UPDATE CASCADE,

CONSTRAINT pk\_student\_subject PRIMARY KEY (Student\_id,Subject\_id,Grade)

);

-- Creating Student\_Teacher table

CREATE TABLE student\_teacher(

Student\_id int NOT NULL,

Teacher\_id char(15) NOT NULL,

Class char(3),

CONSTRAINT fk\_student\_id02 FOREIGN KEY (Student\_id) REFERENCES student (Student\_id) ON DELETE CASCADE ON UPDATE CASCADE ,

CONSTRAINT fk\_teacher\_id02 FOREIGN KEY (Teacher\_id) REFERENCES Teacher (Teacher\_id)ON DELETE SET NULL ON UPDATE CASCADE,

CONSTRAINT pk\_student\_teacher PRIMARY KEY (Student\_id,Teacher\_id)

);

-- pk constraints list

-- pk\_student

-- pk\_parent

-- pk\_subject

-- pk\_teacher

-- pk\_teacher\_subject

-- pk\_student\_subject

-- pk\_student\_teacher

-- fk constraints list

-- fk\_parent01

-- fk\_student01

-- fk\_teacher\_id01

-- fk\_subject\_id01

-- fk\_grade01

-- fk\_student\_id01

-- fk\_subject\_id02

-- fk\_grade02

-- fk\_student\_id02

-- fk\_teacher\_id02