**1) Using the DDL component of SQL, show the syntax required to create the tables shown below.**

**Include all appropriate constraints.**CREATE TABLE Tutor (

TutorID INT PRIMARY KEY,

CertDate DATE NOT NULL,

Status VARCHAR(20) NOT NULL CHECK (Status IN ('Active', 'Temp Stop', 'Dropped'))

);

CREATE TABLE Student (

StudentID INT PRIMARY KEY,

Read FLOAT NOT NULL CHECK (Read BETWEEN 0 AND 10)

);

CREATE TABLE MatchHistory (

MatchID INT PRIMARY KEY,

TutorID INT NOT NULL,

StudentID INT NOT NULL,

StartDate DATE NOT NULL,

EndDate DATE,

FOREIGN KEY (TutorID) REFERENCES Tutor(TutorID),

FOREIGN KEY (StudentID) REFERENCES Student(StudentID)

);

**2) Using the DDL component of SQL show the syntax required to populate the Tutor table.**

INSERT INTO Tutor (TutorID, CertDate, Status) VALUES

(100, '2022-01-05', 'Active'),

(101, '2022-01-05', 'Temp Stop'),

(102, '2022-01-05', 'Dropped'),

(103, '2022-05-22', 'Active'),

(104, '2022-05-22', 'Active'),

(105, '2022-05-22', 'Temp Stop'),

(106, '2022-05-22', 'Active');

**3) Using the DDL component of SQL, show the syntax required to add the student name attribute**

**to the Student table.**  
ALTER TABLE Student ADD COLUMN StudentName VARCHAR(100);

**4) Using the DDL component of SQL, show the syntax required to add the student names to the**

**existing table. You come up with the names.**

UPDATE Student SET StudentName = CASE StudentID

WHEN 3000 THEN 'Vamsitha Gude'

WHEN 3001 THEN 'Ajay Kommineni'

WHEN 3002 THEN 'Sudeep Ravipati'

WHEN 3003 THEN 'Manogna Yenumula'

WHEN 3004 THEN 'Swetha Gundala'

WHEN 3005 THEN 'Ruth Angel'

WHEN 3006 THEN 'Amulya Tulluru'

WHEN 3007 THEN 'Zade Meadows'

END;

**5) How many Tutors have a status of Temp Stop? Which tutors are active? What are their names?**

Tutors with a Status of "Temp Stop": As per the data there are 2 tutors with a status of "Temp Stop" they are Tutors with id 101, 105

Active Tutors: The active tutors are TutorIDs 100, 103, 104, and 106.

**6) What is the average read score for all students? What are the minimum and maximum Read**

**scores?**

Average Read Score: 3.3

Minimum Read Score: 1.3 (StudentID 3002)

Maximum Read Score: 7.8 (StudentID 3006)

**7) List the IDs of the tutors who are currently tutoring more than one student.**

TutorID 104 is tutoring more than one student (StudentIDs 3005 and 3006).

**8) What are the TutorIDs of the Tutors who are not assigned a student?**

TutorId of Tutors who are not assigned a student is 105.

**9) How many students were matched in the first five months of the year?**

There were 4 students matched in the first five months:

MatchID 1 (January)

MatchID 2 (January)

MatchID 3 (February)

MatchID 4 (May)

**10) For those who completed the program, how long (on average) were they in the program?**

StudentID 3001: 4 months (from January to May)

StudentID 3002: 1 month (from February to March)

Average Duration: 2.5 months

**11) What are the names of the students who had higher read scores than the average read score?**

Students with higher than the average read score of 3.3 are:

StudentID 3001 (Read score: 5.6)

StudentID 3005 (Read score: 4.8)

StudentID 3006 (Read score: 7.8)

**12) Why was TutorID 102 dropped from the program?**

In the question it was mentioned that the students complete an interview assessment, which will be recorded in the Read score. And the tutor with ID 102 has the minimum Read score among all the students. So it may be the reason for the dropping off of TutorID 102.