

ii) Create a Database and add tables, relationships based on the following diagram.

Use appropriate table names, column names and data types

Done using Sandbox SQL due to inability to connect to server in MS SQL

```
CREATE DATABASE StudentCourseDB;
```


```
USE StudentCourseDB;
```

```
CREATE TABLE Courses (  
    CourseId INT PRIMARY KEY,  
    Name VARCHAR(100),  
    LecturerName VARCHAR(100)  
);
```

```
CREATE TABLE Students (  
    StudentId INT PRIMARY KEY,  
    Name VARCHAR(100),  
    City VARCHAR(100),  
    CourseId INT,  
    FOREIGN KEY (CourseId) REFERENCES Courses(CourseId)  
);
```

iii) Add following data into tables.

```
INSERT INTO Courses (CourseId, Name, LecturerName) VALUES  
(1, 'Web Development', 'M.M. Herath'),  
(2, 'Graphic Design', 'J.S.V. Piyasena'),  
(3, 'Mobile App Development', 'K.K.S. Dias'),  
(4, 'Java', 'U.H.S. Perera');
```

SandboxSQL


New


Load


Export

Tables

▼ Courses

 CourseId int

 Name varchar(100)

 LecturerName varchar(100)

> Students

CourseId	Name	LecturerName
1	Web Development	M.M. Herath
2	Graphic Design	J.S.V. Piyasena
3	Mobile App Development	K.K.S. Dias
4	Java	U.H.S. Perera

Execute

Info

Error

Errors will appear here. Currently, there are no errors!

1 SELECT * FROM Courses;

INSERT INTO Students (StudentId, Name, City, CourseId) VALUES

(1, 'Kasun Gamage', 'Kandy', 2),


(2, 'Daniel Sam', 'Jaffna', 3),

(3, 'Hansi Silva', 'Colombo', 1),

(4, 'Ranidu Heath', 'Matara', 3),

(5, 'Praneeth Wijesinghe', 'Kandy', 4),

(6, 'Nuwani Herath', 'Rathnapura', 4);

SandboxSQL

New

Load

Export

Tables	StudentId	Name	City	CourseId
> Courses	1	Kasun Gamage	Kandy	2
▼ Students	2	Daniel Sam	Jaffna	3
🔗 StudentId int 📄 Name varchar(100) 📄 City varchar(100) 📄 CourseId int	3	Hansi Silva	Colombo	1
	4	Ranidu Heath	Matara	3
	5	Praneeth Wijesinghe	Kandy	4
	6	Nuwani Herath	Rathnapura	4
	<div>ExecuteInfoError</div> <div>Errors will appear here. Currently, there are no errors!</div>			
	1 SELECT * FROM Students;			

iv) Write SQL Queries for following scenarios.

A. Get all the information of all Students.

SELECT * FROM Students;

SandboxSQL

New

Load

Export

Tables

> Courses

▼ Students

🔗 StudentId int

📄 Name varchar(100)

📄 City varchar(100)

📄 CourseId int

StudentId

Name

City

CourseId

1

Kasun Gamage

Kandy

2

2

Daniel Sam

Jaffna

3

3

Hansi Silva

Colombo

1

4

Ranidu Heath

Matara

3

5

Praneeth Wijesinghe

Kandy

4

6

Nuwani Herath

Rathnapura

4

Execute

Info

Error

Errors will appear here. Currently, there are no errors!

1 SELECT * FROM Students;

B. Select student id, name and city from students who are from the 'kandy'.

SELECT StudentId, Name, City FROM Students WHERE City = 'Kandy';

SandboxSQL

New

Load

Export

Tables

> Courses

Students

StudentId int
Name varchar(100)
City varchar(100)
CourseId int

StudentId

Name

City

1

Kasun Gamage

Kandy

5

Praneeth Wijesinghe

Kandy

Execute

Info

Error

Errors will appear here. Currently, there are no errors!

1 SELECT StudentId, Name, City FROM Students WHERE City = 'Kandy';

C. Update the City as 'Galle' of the student whose id equals to 4 .

UPDATE Students SET City = 'Galle' WHERE StudentId = 4;

SELECT * FROM Students WHERE StudentId = 4;

SandboxSQL

New

Load

Export

Tables

> Courses

Students

StudentId int
Name varchar(100)
City varchar(100)
CourseId int

StudentId

Name

City

CourseId

4

Ranidu Heath

Galle

3

Execute

Info

Error

Errors will appear here. Currently, there are no errors!

1 SELECT * FROM Students WHERE StudentId = 4;

D. Get all the information of all students with their course names.

SELECT s.StudentId, s.Name, s.City, s.CourseId, c.Name AS CourseName,

c.LecturerName

FROM Students s

JOIN Courses c ON s.CourseId = c.CourseId;

SandboxSQL

New

Load

Export

Sign In

Tables

> Courses

Students

StudentId int
Name varchar(100)
City varchar(100)
CourseId int

StudentId

Name

City

CourseId

CourseName

LecturerName

1

Kasun Gamage

Kandy

2

Graphic Design

J.S.V. Piyasena

2

Daniel Sam

Jaffna

3

Mobile App Development

K.K.S. Dias

3

Hansi Silva

Colombo

1

Web Development

M.M. Herath

4

Ranidu Heath

Galle

3

Mobile App Development

K.K.S. Dias

5

Praneeth Wijesinghe

Kandy

4

Java

U.H.S. Perera

6

Nuwani Herath

Rathnapura

4

Java

U.H.S. Perera

Execute

Info

Error

1 SELECT s.StudentId, s.Name, s.City, s.CourseId, c.Name AS CourseName, c.LecturerName
2 FROM Students s
3 JOIN Courses c ON s.CourseId = c.CourseId;