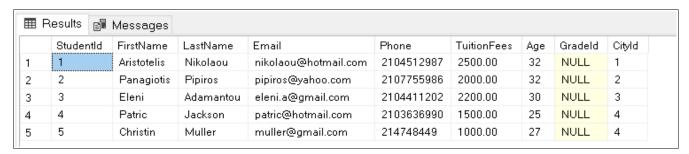# 5. You need to produce sql queries that output the following [19marks in total] :

➔ **A list of all the students [2marks]**

Answer:

Query: `Select * from Students;`

Result: (5 rows affected)

	StudentId	FirstName	LastName	Email	Phone	TuitionFees	Age	GradeId	CityId
1	1	Aristotelis	Nikolaou	nikolaou@hotmail.com	2104512987	2500.00	32	NULL	1
2	2	Panagiotis	Pipiros	pipiros@yahoo.com	2107755986	2000.00	32	NULL	2
3	3	Eleni	Adamantou	eleni.a@gmail.com	2104411202	2200.00	30	NULL	3
4	4	Patric	Jackson	patric@hotmail.com	2103636990	1500.00	25	NULL	4
5	5	Christin	Muller	muller@gmail.com	214748449	1000.00	27	NULL	4

➔ **A list of all the trainers [2marks]**

Answer:

Query: `Select * from Trainers;`

Result: (4 rows affected)

	TrainerId	FirstName	LastName	Email	Phone	Salary	Age	Subject	CityId
1	1	Panagiotis	Papadopoulou	christinapapa@gmail.com	214748449	3000.00	40	1	1
2	2	Sandra	Nikolaidi	christinapapa@gmail.com	214748449	4000.00	45	4	1
3	3	Eva	Kotroni	christinapapa@gmail.com	214748449	3300.00	37	4	2
4	4	Menelaos	Adamantos	christinapapa@gmail.com	214748449	3500.00	41	3	2

➔ A list of all the assignments [2marks]
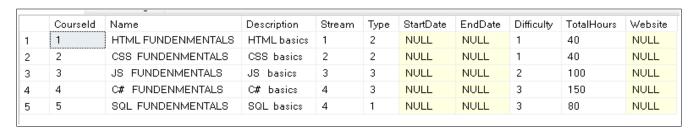
Answer:

Query: `Select * from Assignments;`

(5 rows affected)

	AssignmentId	Name	Description	StartDate	EndDate	Points	DownloadLink	IsSubmitted	IsUploaded	TrainerId	CourseID	Website
1	1	Assignment 1	HTML webpage	2022-06-08 16:22:46.033	2022-06-15 16:22:46.033	30	https://a1.html	0	1	1	1	https://www.w3schools.com/howto/howto_make_a_web
2	2	Assignment 2	CSS tricks	2022-06-08 16:22:46.033	2022-06-09 16:22:46.033	40	https://a2.html	0	1	1	2	https://css-tricks.com/
3	3	Assignment 3	JS crud	2022-06-08 16:22:46.033	2022-06-22 16:22:46.033	50	https://a3.html	0	1	3	3	https://www.freecodecamp.org/news/learn-crud-operatic
4	4	Assignment 4	C# interfaces	2022-06-08 16:22:46.033	2022-06-11 16:22:46.033	100	https://a4.html	0	1	3	4	https://docs.microsoft.com/en-us/dotnet/csharp/languag
5	5	Assignment 5	SQL database	2022-06-09 16:22:46.033	2022-07-06 16:22:46.033	65	https://a5.html	0	1	4	5	https://www.w3schools.com/sql/sql_intro.asp

➔ A list of all the courses [2marks]

Answer:

Query: `Select * from Courses;`

Result: (5 rows affected)

	CourseId	Name	Description	Stream	Type	StartDate	EndDate	Difficulty	TotalHours	Website
1	1	HTML FUNDENMENTALS	HTML basics	1	2	NULL	NULL	1	40	NULL
2	2	CSS FUNDENMENTALS	CSS basics	2	2	NULL	NULL	1	40	NULL
3	3	JS FUNDENMENTALS	JS basics	3	3	NULL	NULL	2	100	NULL
4	4	C# FUNDENMENTALS	C# basics	4	3	NULL	NULL	3	150	NULL
5	5	SQL FUNDENMENTALS	SQL basics	4	1	NULL	NULL	3	80	NULL

➔ All the students per course [2marks]

Answer:

Query(first way):

```
select Courses.Name as CourseTitle,Students.FirstName As Student_FirstName, Students.LastName
As Student_LastName
from Courses, Students, StudentCourses
where Students.StudentId = StudentCourses.Student_StudentId
AND StudentCourses.Course_CourseId = Courses.CourseId
Order by Courses.Name asc;
```

Result:

	CourseTitle	Student_FirstName	Student_LastName
1	C# FUNDENMENTALS	Aristotelis	Nikolaou
2	C# FUNDENMENTALS	Patric	Jackson
3	C# FUNDENMENTALS	Christin	Muller
4	CSS FUNDENMENTALS	Aristotelis	Nikolaou
5	CSS FUNDENMENTALS	Panagiotis	Pipiros
6	CSS FUNDENMENTALS	Christin	Muller
7	HTML FUNDENMENTALS	Aristotelis	Nikolaou
8	HTML FUNDENMENTALS	Panagiotis	Pipiros
9	HTML FUNDENMENTALS	Christin	Muller
10	JS FUNDENMENTALS	Aristotelis	Nikolaou
11	JS FUNDENMENTALS	Eleni	Adamantou
12	JS FUNDENMENTALS	Patric	Jackson
13	JS FUNDENMENTALS	Christin	Muller
14	SQL FUNDENMENTALS	Aristotelis	Nikolaou
15	SQL FUNDENMENTALS	Patric	Jackson
16	SQL FUNDENMENTALS	Christin	Muller

Query(second way):

```
SELECT Students.FirstName As Student_Firstname,Students.LastName As Student_Lastname,
Courses.Name As Course
FROM Students
inner join StudentCourses
ON Students.StudentId = StudentCourses.Student_StudentId
inner join Courses
ON Courses.CourseId = StudentCourses.Course_CourseId
Order by Courses.Name;
```

Result:

	Student_Firstname	Student_Lastname	Course
1	Aristotelis	Nikolaou	C# FUNDENMENTALS
2	Patric	Jackson	C# FUNDENMENTALS
3	Christin	Muller	C# FUNDENMENTALS
4	Christin	Muller	CSS FUNDENMENTALS
5	Aristotelis	Nikolaou	CSS FUNDENMENTALS
6	Panagiotis	Pipiros	CSS FUNDENMENTALS
7	Aristotelis	Nikolaou	HTML FUNDENMENTALS
8	Panagiotis	Pipiros	HTML FUNDENMENTALS
9	Christin	Muller	HTML FUNDENMENTALS
10	Christin	Muller	JS FUNDENMENTALS
11	Eleni	Adamantou	JS FUNDENMENTALS
12	Patric	Jackson	JS FUNDENMENTALS
13	Aristotelis	Nikolaou	JS FUNDENMENTALS
14	Aristotelis	Nikolaou	SQL FUNDENMENTALS
15	Patric	Jackson	SQL FUNDENMENTALS
16	Christin	Muller	SQL FUNDENMENTALS

➔ All the trainers per course [2marks]

Answer:

Query(first way):

```sql
select Courses.Name as CourseTitle, Trainers.FirstName As Trainer_FirstName, Trainers.LastName
As Trainer_LastName
from Courses, Trainers, TrainerCourses
where Trainers.TrainerId = TrainerCourses.Trainer_TrainerId
AND TrainerCourses.Course_CourseId = Courses.CourseId
Order by Courses.Name asc;
```

Result:

	CourseTitle	Trainer_FirstName	Trainer_LastName
1	C# FUNDENMENTALS	Sandra	Nikolaidi
2	C# FUNDENMENTALS	Eva	Kotroni
3	C# FUNDENMENTALS	Menelaos	Adamantos
4	CSS FUNDENMENTALS	Menelaos	Adamantos
5	CSS FUNDENMENTALS	Eva	Kotroni
6	CSS FUNDENMENTALS	Panagiotis	Papadopoulou
7	HTML FUNDENMENTALS	Menelaos	Adamantos
8	HTML FUNDENMENTALS	Panagiotis	Papadopoulou
9	JS FUNDENMENTALS	Menelaos	Adamantos
10	JS FUNDENMENTALS	Eva	Kotroni
11	JS FUNDENMENTALS	Panagiotis	Papadopoulou
12	SQL FUNDENMENTALS	Sandra	Nikolaidi
13	SQL FUNDENMENTALS	Menelaos	Adamantos

Query(second way):

```sql
SELECT Trainers.FirstName As Trainer_Firstname,Trainers.LastName As Trainer_Lastname,
Courses.Name As Course
FROM Trainers
inner join TrainerCourses
ON Trainers.TrainerId = TrainerCourses.Trainer_TrainerId
inner join Courses
ON Courses.CourseId = TrainerCourses.Course_CourseId
Order by Courses.Name;
```

Result:

	Trainer_Firstname	Trainer_Lastname	Course
1	Sandra	Nikolaidi	C# FUNDENMENTALS
2	Eva	Kotroni	C# FUNDENMENTALS
3	Menelaos	Adamantos	C# FUNDENMENTALS
4	Menelaos	Adamantos	CSS FUNDENMENTALS
5	Eva	Kotroni	CSS FUNDENMENTALS
6	Panagiotis	Papadopoulou	CSS FUNDENMENTALS
7	Menelaos	Adamantos	HTML FUNDENMENTALS
8	Panagiotis	Papadopoulou	HTML FUNDENMENTALS
9	Menelaos	Adamantos	JS FUNDENMENTALS
10	Eva	Kotroni	JS FUNDENMENTALS
11	Panagiotis	Papadopoulou	JS FUNDENMENTALS
12	Sandra	Nikolaidi	SQL FUNDENMENTALS
13	Menelaos	Adamantos	SQL FUNDENMENTALS

➔ All the assignments per course[2marks]

Answer:

Query(first way):

```sql
select Courses.Name as CourseTitle, Assignments.Name As Assignment_Title,
Assignments.Description As Assignment_Description, Assignments.Points,
Assignments.StartDate,Assignments.EndDate
from Courses, CourseAssignments,Assignments
where Courses.CourseId = CourseAssignments.Course_CourseId
AND CourseAssignments.Assignment_AssignmentId = Assignments.AssignmentId
Order by Courses.Name asc;
```

Result:

	CourseTitle	Name	Description	Points	StartDate	EndDate
1	C# FUNDENMENTALS	Assignment 1	HTML webpage	30	2022-06-08 16:22:46.033	2022-06-15 16:22:46.033
2	C# FUNDENMENTALS	Assignment 4	C# interfaces	100	2022-06-08 16:22:46.033	2022-06-11 16:22:46.033
3	CSS FUNDENMENTALS	Assignment 2	CSS tricks	40	2022-06-08 16:22:46.033	2022-06-09 16:22:46.033
4	CSS FUNDENMENTALS	Assignment 3	JS crud	50	2022-06-08 16:22:46.033	2022-06-22 16:22:46.033
5	HTML FUNDENMENTALS	Assignment 1	HTML webpage	30	2022-06-08 16:22:46.033	2022-06-15 16:22:46.033
6	HTML FUNDENMENTALS	Assignment 2	CSS tricks	40	2022-06-08 16:22:46.033	2022-06-09 16:22:46.033
7	HTML FUNDENMENTALS	Assignment 3	JS crud	50	2022-06-08 16:22:46.033	2022-06-22 16:22:46.033
8	JS FUNDENMENTALS	Assignment 3	JS crud	50	2022-06-08 16:22:46.033	2022-06-22 16:22:46.033
9	JS FUNDENMENTALS	Assignment 4	C# interfaces	100	2022-06-08 16:22:46.033	2022-06-11 16:22:46.033
10	JS FUNDENMENTALS	Assignment 5	SQL database	65	2022-06-09 16:22:46.033	2022-07-06 16:22:46.033
11	SQL FUNDENMENTALS	Assignment 1	HTML webpage	30	2022-06-08 16:22:46.033	2022-06-15 16:22:46.033
12	SQL FUNDENMENTALS	Assignment 2	CSS tricks	40	2022-06-08 16:22:46.033	2022-06-09 16:22:46.033
13	SQL FUNDENMENTALS	Assignment 3	JS crud	50	2022-06-08 16:22:46.033	2022-06-22 16:22:46.033
14	SQL FUNDENMENTALS	Assignment 4	C# interfaces	100	2022-06-08 16:22:46.033	2022-06-11 16:22:46.033
15	SQL FUNDENMENTALS	Assignment 5	SQL database	65	2022-06-09 16:22:46.033	2022-07-06 16:22:46.033

Query(second way):

```sql
select Assignments.Name as Assignment_Title, Assignments.Description as Assignment_Description,
Assignments.Points, Assignments.StartDate,Assignments.EndDate, Courses.Name as CourseTitle
from Assignments
inner join CourseAssignments on Assignments.AssignmentId =
CourseAssignments.Assignment_AssignmentId
inner join Courses on Courses.CourseId = CourseAssignments.Course_CourseId
order by Courses.Name asc;
```

Result:

	Assignment_Title	Assignment_Description	Points	StartDate	EndDate	CourseTitle
1	Assignment 1	HTML webpage	30	2022-06-08 16:22:46.033	2022-06-15 16:22:46.033	C# FUNDENMENTALS
2	Assignment 4	C# interfaces	100	2022-06-08 16:22:46.033	2022-06-11 16:22:46.033	C# FUNDENMENTALS
3	Assignment 2	CSS tricks	40	2022-06-08 16:22:46.033	2022-06-09 16:22:46.033	CSS FUNDENMENTALS
4	Assignment 3	JS crud	50	2022-06-08 16:22:46.033	2022-06-22 16:22:46.033	CSS FUNDENMENTALS
5	Assignment 1	HTML webpage	30	2022-06-08 16:22:46.033	2022-06-15 16:22:46.033	HTML FUNDENMENTALS
6	Assignment 2	CSS tricks	40	2022-06-08 16:22:46.033	2022-06-09 16:22:46.033	HTML FUNDENMENTALS
7	Assignment 3	JS crud	50	2022-06-08 16:22:46.033	2022-06-22 16:22:46.033	HTML FUNDENMENTALS
8	Assignment 4	C# interfaces	100	2022-06-08 16:22:46.033	2022-06-11 16:22:46.033	JS FUNDENMENTALS
9	Assignment 5	SQL database	65	2022-06-09 16:22:46.033	2022-07-06 16:22:46.033	JS FUNDENMENTALS
10	Assignment 3	JS crud	50	2022-06-08 16:22:46.033	2022-06-22 16:22:46.033	JS FUNDENMENTALS
11	Assignment 3	JS crud	50	2022-06-08 16:22:46.033	2022-06-22 16:22:46.033	SQL FUNDENMENTALS
12	Assignment 2	CSS tricks	40	2022-06-08 16:22:46.033	2022-06-09 16:22:46.033	SQL FUNDENMENTALS
13	Assignment 1	HTML webpage	30	2022-06-08 16:22:46.033	2022-06-15 16:22:46.033	SQL FUNDENMENTALS
14	Assignment 5	SQL database	65	2022-06-09 16:22:46.033	2022-07-06 16:22:46.033	SQL FUNDENMENTALS
15	Assignment 4	C# interfaces	100	2022-06-08 16:22:46.033	2022-06-11 16:22:46.033	SQL FUNDENMENTALS

➔ **All the assignments per course per student [2marks]**

Query:

```
Select Courses.Name as Course_Name,Students.FirstName + ' '+Students.LastName as
Student_FullName, Assignments.Name as Assignment_Name, Assignments.StartDate as
Assignment_StartDate,Assignments.EndDate as Assignment_EndDate
from StudentCourses
inner join StudentAssignments on StudentCourses.Student_StudentId =
StudentAssignments.Student_StudentId
inner join Courses on StudentCourses.Course_CourseId = Courses.CourseId
inner join Students on StudentCourses.Student_StudentId = Students.StudentId
inner join Assignments on StudentAssignments.Assignment_AssignmentId = Assignments.AssignmentId
order by Courses.Name,Students.FirstName;
```

Result:

	Course_Name	Student_FullName	Assignment_Name	Assignment_StartDate	Assignment_EndDate
1	C# FUNDENMENTALS	Aristotelis Nikolaou	Assignment 1	2022-06-08 16:22:46.033	2022-06-15 16:22:46.033
2	C# FUNDENMENTALS	Aristotelis Nikolaou	Assignment 2	2022-06-08 16:22:46.033	2022-06-09 16:22:46.033
3	C# FUNDENMENTALS	Aristotelis Nikolaou	Assignment 3	2022-06-08 16:22:46.033	2022-06-22 16:22:46.033
4	C# FUNDENMENTALS	Christin Muller	Assignment 4	2022-06-08 16:22:46.033	2022-06-11 16:22:46.033
5	C# FUNDENMENTALS	Christin Muller	Assignment 5	2022-06-09 16:22:46.033	2022-07-06 16:22:46.033
6	C# FUNDENMENTALS	Patric Jackson	Assignment 2	2022-06-08 16:22:46.033	2022-06-09 16:22:46.033
7	C# FUNDENMENTALS	Patric Jackson	Assignment 1	2022-06-08 16:22:46.033	2022-06-15 16:22:46.033
8	CSS FUNDENMENTALS	Aristotelis Nikolaou	Assignment 3	2022-06-08 16:22:46.033	2022-06-22 16:22:46.033
9	CSS FUNDENMENTALS	Aristotelis Nikolaou	Assignment 1	2022-06-08 16:22:46.033	2022-06-15 16:22:46.033
10	CSS FUNDENMENTALS	Aristotelis Nikolaou	Assignment 2	2022-06-08 16:22:46.033	2022-06-09 16:22:46.033
11	CSS FUNDENMENTALS	Christin Muller	Assignment 4	2022-06-08 16:22:46.033	2022-06-11 16:22:46.033
12	CSS FUNDENMENTALS	Christin Muller	Assignment 5	2022-06-09 16:22:46.033	2022-07-06 16:22:46.033
13	CSS FUNDENMENTALS	Panagiotis Pipiros	Assignment 2	2022-06-08 16:22:46.033	2022-06-09 16:22:46.033
14	CSS FUNDENMENTALS	Panagiotis Pipiros	Assignment 4	2022-06-08 16:22:46.033	2022-06-11 16:22:46.033
15	HTML FUNDENMENTALS	Aristotelis Nikolaou	Assignment 1	2022-06-08 16:22:46.033	2022-06-15 16:22:46.033
16	HTML FUNDENMENTALS	Aristotelis Nikolaou	Assignment 2	2022-06-08 16:22:46.033	2022-06-09 16:22:46.033
17	HTML FUNDENMENTALS	Aristotelis Nikolaou	Assignment 3	2022-06-08 16:22:46.033	2022-06-22 16:22:46.033
18	HTML FUNDENMENTALS	Christin Muller	Assignment 4	2022-06-08 16:22:46.033	2022-06-11 16:22:46.033
19	HTML FUNDENMENTALS	Christin Muller	Assignment 5	2022-06-09 16:22:46.033	2022-07-06 16:22:46.033
20	HTML FUNDENMENTALS	Panagiotis Pipiros	Assignment 4	2022-06-08 16:22:46.033	2022-06-11 16:22:46.033
21	HTML FUNDENMENTALS	Panagiotis Pipiros	Assignment 2	2022-06-08 16:22:46.033	2022-06-09 16:22:46.033
22	JS FUNDENMENTALS	Aristotelis Nikolaou	Assignment 3	2022-06-08 16:22:46.033	2022-06-22 16:22:46.033
23	JS FUNDENMENTALS	Aristotelis Nikolaou	Assignment 2	2022-06-08 16:22:46.033	2022-06-09 16:22:46.033
24	JS FUNDENMENTALS	Aristotelis Nikolaou	Assignment 1	2022-06-08 16:22:46.033	2022-06-15 16:22:46.033
25	JS FUNDENMENTALS	Christin Muller	Assignment 4	2022-06-08 16:22:46.033	2022-06-11 16:22:46.033
26	JS FUNDENMENTALS	Christin Muller	Assignment 5	2022-06-09 16:22:46.033	2022-07-06 16:22:46.033
27	JS FUNDENMENTALS	Eleni Adamantou	Assignment 1	2022-06-08 16:22:46.033	2022-06-15 16:22:46.033
28	JS FUNDENMENTALS	Eleni Adamantou	Assignment 4	2022-06-08 16:22:46.033	2022-06-11 16:22:46.033
29	JS FUNDENMENTALS	Eleni Adamantou	Assignment 5	2022-06-09 16:22:46.033	2022-07-06 16:22:46.033
30	JS FUNDENMENTALS	Patric Jackson	Assignment 1	2022-06-08 16:22:46.033	2022-06-15 16:22:46.033
31	JS FUNDENMENTALS	Patric Jackson	Assignment 2	2022-06-08 16:22:46.033	2022-06-09 16:22:46.033
32	SQL FUNDENMENTALS	Aristotelis Nikolaou	Assignment 1	2022-06-08 16:22:46.033	2022-06-15 16:22:46.033
33	SQL FUNDENMENTALS	Aristotelis Nikolaou	Assignment 2	2022-06-08 16:22:46.033	2022-06-09 16:22:46.033
34	SQL FUNDENMENTALS	Aristotelis Nikolaou	Assignment 3	2022-06-08 16:22:46.033	2022-06-22 16:22:46.033
35	SQL FUNDENMENTALS	Christin Muller	Assignment 4	2022-06-08 16:22:46.033	2022-06-11 16:22:46.033
36	SQL FUNDENMENTALS	Christin Muller	Assignment 5	2022-06-09 16:22:46.033	2022-07-06 16:22:46.033
37	SQL FUNDENMENTALS	Patric Jackson	Assignment 2	2022-06-08 16:22:46.033	2022-06-09 16:22:46.033
38	SQL FUNDENMENTALS	Patric Jackson	Assignment 1	2022-06-08 16:22:46.033	2022-06-15 16:22:46.033

➔ A list of students that belong to more than one courses [3marks]

Query:

```sql
SELECT Students.FirstName + ' '+Students.LastName as Student_FullName, Count(*) as Numbers_Of_Courses
FROM Students INNER JOIN StudentCourses ON Students.StudentId = StudentCourses.Student_StudentId
GROUP BY Students.FirstName,Students.LastName
HAVING COUNT(*) > 1
Order by Students.FirstName asc;
```

Result:

	Student_FullName	Numbers_Of_Courses
1	Aristotelis Nikolaou	5
2	Christin Muller	5
3	Panagiotis Pipiros	2
4	Patric Jackson	3