Database Project

Topic

Column Name	Data Type	Allow Nul
Top_Id	int	☐
Top_Name	nvarchar(50)	☑

Course *

Column Name	Data Type	Allow Nul
Crs_Id	int	☐
Crs_Name	nvarchar(50)	☑
Crs_Duration	int	☑
Top_Id	int	☑

Stud Course *

Column Name	Data Type	Allow Nul
Crs_Id	int	☐
St_Id	int	☐
Grade	int	☑

Student

Column Name	Data Type	Allow Nul
St_Id	int	☐
St_Fname	nvarchar(50)	☑
St_Lname	nchar(10)	☑
St_Address	nvarchar(100)	☑
St_Age	int	☑
Dept_Id	int	☑
St_super	int	☑

Ins Course

Column Name	Data Type	Allow Nulls
Ins_Id	int	☐
Crs_Id	int	☐
Evaluation	nvarchar(50)	☑

Instructor

Column Name	Data Type	Allow Nul
Ins_Id	int	☐
Ins_Name	nvarchar(50)	☑
Ins_Degree	nvarchar(50)	☑
Salary	money	☑
Dept_Id	int	☑

Department

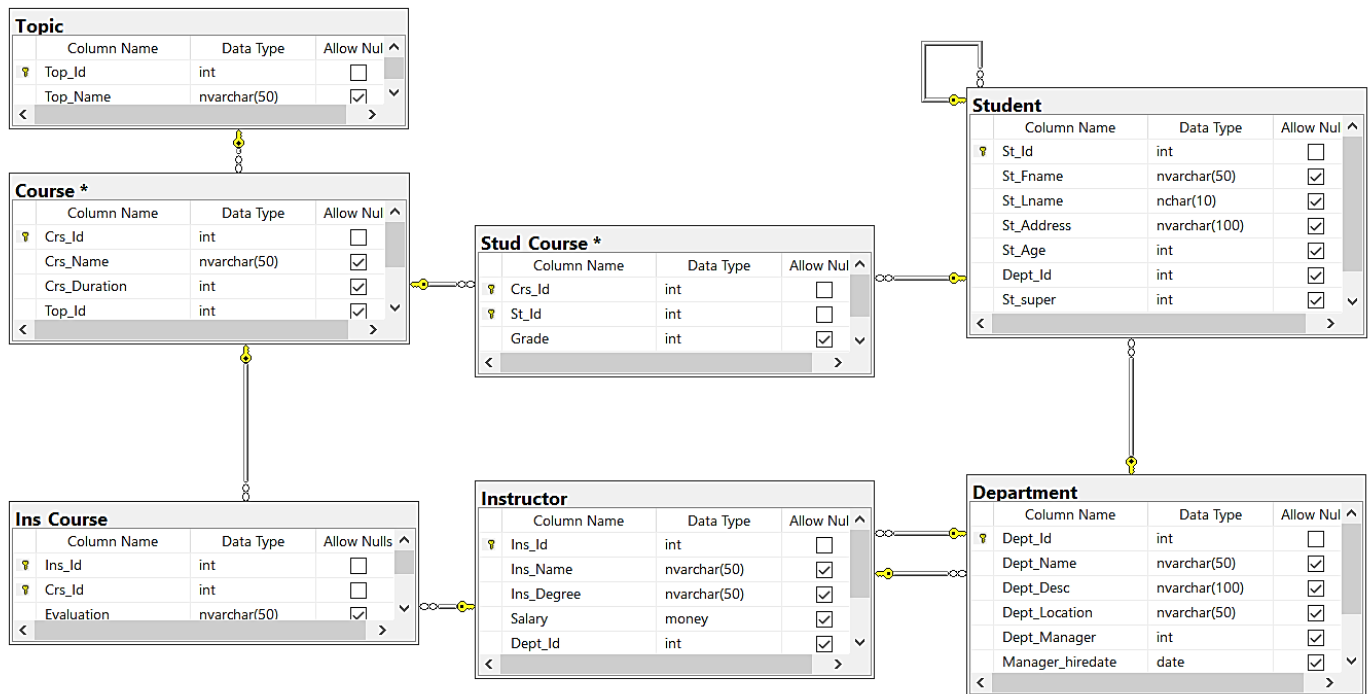| Column Name	Data Type	Allow Nul
Dept_Id	int	☐
Dept_Name	nvarchar(50)	☑
Dept_Desc	nvarchar(100)	☑
Dept_Location	nvarchar(50)	☑
Dept_Manager	int	☑
Manager_hiredate	date	☑

- Create Database called **DEPI_DB**
- Use the above schema diagram to create the tables according the specific constraints and datatypes using (SQL code)
- Insert these values into the tables

	Crs_Id	Crs_Name	Crs_Duration	Top_Id
1	100	HTML	20	3
2	200	C Progamming	60	1
3	300	OOP	80	1
4	400	Unix	50	4
5	500	SQL Server	60	2

	Dept_Id	Dept_Name	Dept_Desc	Dept_Location	Dept_Manager	Manager_hiredate
1	10	SD	System Development	Cairo	NULL	2000-01-01
2	20	EL	E-Learning	Mansoura	NULL	2002-10-02
3	30	Java	Java	Cairo	NULL	2008-05-04
4	40	MM	Multimedia	Alex	NULL	2009-01-01
5	50	Unix	Unix	Alex	NULL	NULL
6	60	NC	Network	Cairo	NULL	NULL
7	70	EB	E-Business	Alex	NULL	NULL

	Ins_Id	Ins_Name	Ins_Degree	Salary	Dept_Id
1	1	Ahmed	Master	NULL	10
2	2	Hany	Master	NULL	10
3	3	Reham	Master	NULL	10
4	4	Yasmin	PHD	NULL	10
5	5	Amany	PHD	NULL	10
6	6	Eman	Master	NULL	10
7	7	Saly	NULL	NULL	10
8	8	Amr	NULL	NULL	30
9	9	Hussien	NULL	NULL	50
10	10	Khalid	NULL	NULL	30
11	11	Salah	NULL	NULL	70

	St_Id	St_Fname	St_Lname	St_Address	St_Age	Dept_Id	St_super
1	1	Ahmed	Hassan	Cairo	20	10	NULL
2	2	Amr	Magdy	Cairo	21	10	1
3	3	Mona	Saleh	Cairo	22	10	1
4	4	Ahmed	Mohamed	Alex	23	10	1
5	5	Khalid	Moahmed	Alex	24	10	1
6	6	Heba	Farouk	Mansoura	25	20	NULL
7	7	Ali	Hussien	Cairo	25	20	6
8	8	Mohamed	Fars	Alex	28	20	6

	Ins_Id	Crs_Id	Evaluation
1	1	100	Good
2	1	200	Good
3	1	300	Good
4	2	400	VGood
5	2	500	Good
6	3	100	Distinct
7	3	600	VGood
8	3	700	Good
9	4	200	Good
10	4	300	Good

	Crs_Id	St_Id	Grade
1	100	1	100
2	100	2	90
3	100	3	80
4	100	4	70
5	100	5	100
6	100	6	90
7	200	1	90
8	200	2	90
9	200	3	80
10	200	4	80

	Top_Id	Top_Name
1	1	Programming
2	2	DB
3	3	Web
4	4	Operating System
5	5	Design

- retrieve number of students who have a value in their age.
- Get all instructors Names without repetition
- Display student with the following Format

Student ID	Student Full Name	Department name

- Display instructor Name and Department Name

  Note: display all the instructors if they are attached to a department or not
- Display student full name and the name of the course he is taking

  For only courses which have a grade
- Display number of courses for each topic name
- Display max and min salary for instructors
- Display instructors who have salaries less than the average salary of all instructors.
- Display the Department name that contains the instructor who receives the minimum salary.
- Select max two salaries in instructor table.
- Select instructor name and his salary but if there is no salary display **NA** keyword instead. "use coalesce Function"
- Select Average Salary for instructors
- Select Student first name and the data of his supervisor
- Create Stored Procedure to retrieve number of students for specific department name. (**search to solve**)
- Create View that contains Student Name and his Courses that take (**search to solve**)