

# SQL SERVER 2016 Project

## Course Management System Database

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### Project Scenario

You have to design a database normalized to 3NF based on the description below.

A company provides IT training on a vast array of technologies. The company has a pool of teachers. Every course the company offers is conducted by a teacher. A teacher is skilled in many key technologies.

Course duration varies course to course.

Batches of a single course are created repeatedly based on demand. Each batch has a start date and not more than 15 students are allowed.

A sample data is available for better understanding  
Employee record

Course Title	Total class	Weekly class	Duration/class	Course Fee	Instructor
Angular 10	25	3	2	25000.00	Rahmatullah Muzahid
MVC Core 3	30	4	2	25000.00	Abul Hossain
Oracle DBA 10	251	2	4	30000.00	Kamrul Ahsan

Instructors

Instructor name	Email	Phone	Expertise
Rahmatullah Muzahid	rahmat@gmail.com	01710XXXXXX	.NET, ASP.NET, MVC
Abul Hossain	abul@yahoo.com	0167XXXXXX	Angular, ReactJS
Kamrul Ahsan	kamrul@hotmail.com	01711XXXXXX	Database, Oracle DBA, PL/SQL

Batch

Batchid	Course	Start Date	Students
1	Angular 10	2020-09-01	Student 1, Student 2, Student 5,...
2	Angular 10	2020-10-01	Student 6, Student7, Student 8,...
3	Oracle DBA 10	2020-07-01	Student 9, Student 10, Student 11,...

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### **Some key implementation requirements:**

- New course, batch entry must be through procedures.
- Validity must be checked
- New instructor insert should include technologies of his expertise
- There must be a simple procedure/function/view to extract information about a batch with student list in comma separated list
- There must be a way to fetch paged tutor data.
- A procedure/function/view for paged student list of a batch

You must use views, stored procedures, all types of UDF, triggers.