SQL SERVER 2016 Project  
Employee Position & Grade Tracking

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horizontal line

# 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,... |

## 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.