# Teamwork Project Assignment for the Database Frameworks Course @ SoftUni

This teamwork project assignment is designed to create overall skills for using databases, ORM technologies and component integration.

## Project Description

Create an application that uses Entity Framework to persist information inside a database. The project must showcase a **full range of CRUD** operations and data query. The type of app is up to you, but you can use the following assignments for inspiration:

#### Example Assignment 1: Web-based Shop

Create a shopping app using [ASP.NET](https://docs.microsoft.com/en-us/aspnet/overview) with product catalog, user registration, and shopping cart. The shop must have an administrative page for managing the list of products and placed orders. You could us JavaScript to improve the functionality.

#### Example Assignment 2: Role-playing Game

Use [MonoGame](http://www.monogame.net/) to create an RPG. Use the database to store the stats of all characters and to persist the game sessions of each player.

#### Example Assignment 3: Contacts Catalog

Use [WPF](https://msdn.microsoft.com/en-us/library/aa970268(v=vs.110).aspx) to create a desktop catalog for a user’s contacts. Store people’s names, address, contact information and picture.

#### Example Assignment 4: Sensor API

Create a console-based application that collects information from real-world sensors (temperature, humidity, illumination, etc.) and feeds them into a database. Provide functionality to aggregate, analyze and graph the collected information.

#### Example Assignment 5: Make Your Own

Create your own assignment, regardless of topic (app, game, service) or implementation (console, WPF, web, MonoGame, etc.)

## Apply for Participation

You can enter your username in this [Google Spreadsheet](https://docs.google.com/spreadsheets/d/1bRP4Cs-SJn7kH9n5xKyXmLbmCWF2wPUbR7nYgwLv9iw/edit?usp=sharing). Either join one of the existing teams, create a new team or mark in the comments you want to be assigned automatically.

## General Requirements

* Console or UI-Based (Desktop, Web…) application, an RPG is preferred
* Underlying Database (MS SQL Server…)
* Object-Relational Mapping technology (Entity Framework…)
* Version Control System (Git is preferred)

## Assessment Criteria

Each team will have to deliver a **public defense** of its work in front of the other students, trainers and assistants. Teams will have **only 10 minutes** for the following:

* **Demonstrate** the project
* Show **source code**
* Show the **database schema**
* Explain how each team member has **contributed**: display the commit logs in the Source Control system you are using.
* Optionally you might prepare a **presentation** (3-4 slides).

Please be **strict in timing**! On the 10th minute you **will be interrupted**! It is good idea to leave **the last 2-3 minutes for questions** from the other students, trainers and assistants.

Be **well prepared** for presenting maximum of your work for minimum time. Bring your own laptop. Test it preliminary with the multimedia projector. Open the project assets beforehand to save time.

## Assessment Evaluation

* **Functionality** – **0…20**
* **Database Design – 0…15**
* **Code Quality (Extracting logic into separate classes, good naming conventions…) – 0…15**
* **Performance (Querying the DB at the right time, no unnecessary queries, optimized queries …) – (0…10)**
* **Teamwork**\* (source control; each team member contributed in 5 different days; distribution of tasks) – **0…5**
* **Bonus** (bonus points are given for exceptional project) – **0...15**

\* If not all team members have contributed to the project, this **does not affect** the teamwork points.

## Give Feedback about Your Teammates

You will be invited to **provide feedback** about all your teammates, their attitude to this project, their technical skills, their team working skills, their contribution to the project, etc. The feedback is important part of the project evaluation so **take it seriously** and be honest.