# Lab: Best Practices and Architecture

This document defines the **exercise assignments** for the "[Entity Framework Core" course @ Software University](https://softuni.bg/trainings/3221/entity-framework-core-february-2021).

# Real Estate Property Ads

Create a database to hold real estate property ads using Entity Framework Core code-first approach.

The database should follow all good practices including the data normalization.

An ad should contain the following properties:

* **Size** (in square meters)
* **YardSize** (in square meters, for houses only)
* **Floor** in which the property is located
* Total number of **floors** in the building
* **District** name
* Building **year** (if no year is specified the value is 0)
* **Type** of the property (1-room apartment, 2-rooms apartment, studio, etc.)
* Type of the **building** (brick, panel, etc.)
* **Price** (in EUR)
* **Tags** for each property (e.g. OldProperty, HugeApartment, HighFloor, etc.)

Add some **console UI** for listing and filtering the ads and districts.

Implement some tagging logic for each ad.

Import the sample data given on the following links:

<https://github.com/NikolayIT/ArtificialIntelligencePlayground/raw/a844a4ee52404ede2b99c316c18772c2f24c275b/ML.NET/Regression/SofiaPropertiesPricePrediction/imot.bg-raw-data-2021-03-18.json>

<https://github.com/NikolayIT/ArtificialIntelligencePlayground/raw/2ae08b43cc466e3acdb1d75ab2714dbd6f3c5aba/ML.NET/Regression/SofiaPropertiesPricePrediction/imot.bg-houses-Sofia-raw-data-2021-03-18.json>

**Create five projects:**

### RealEstates.Data

In this project you have to create your DbContext and migrations.

### RealEstates.Models

In this project you have to implement all of you models.

### RealEstates.Services

In this project you will hold your business logic.

### RealEstates.Importer

In this project add a code to import the data from the given links. Also add some appropriate tags to each property.

### RealEstates.ConsoleApplication

In this project add some UI logic for listing and filtering the data.