Summary:

The project is designed with four layers. Core, Data, DataProcess(business logic), KPMGTest.

Core layer: defined all the public interface and entities.

Data: implemented DAL and CSV reader.

DataProcess: implemented business logic.

KPMGTest: asp.net MVC structure.

Database:

It designed with Entity Framework code first. It leverages DAL generic Repository and unitOfWork design pattern. I used the localdb as persistence database, which can be set as any other kind, which is set in web.config.

File:

File is supported by XLSX and CSV only.

Performance:

The system is not performance very well when uploading large records, the bottleneck is the validation. As time limit, I didn’t use multi-thread to process; otherwise it should increase the performance significantly.

UI:

As time limited, I just did the basic function of the requirement. The better practise should be fulfilled with JQuery to make asynchronous request and response.

Thanks!