Mid-term project report

I separated my program on two folder, in first folder we have our **models** and **processors** in the second folder, in addition I have one **GlobalConfig** class. All relative paths I have In **App.config** file.

**GlobalConfig** – in this class I have all the file names for each type of search (if user wants to get statistics by countries, I have a **CountryStats.csv** file and so on…) and three methods. The first method is **IsUserValid()** in this method I go to the security file and check whether the given credentials are correct . The second method, **InitializeUser()** where we decide with what type of processor we will work with. And the last one starts the program.

In the UserModels folder I have two models for each type of the user. These classes implement the interface **IUser,** where I declared all the properties for an accident. In **SimpleUserModel** class I return “Access denied” string for the field that user doesn’t have access. The models contain only constructors for initializing the information.

In the Processors folder, I have an interface **IUserProcessor** where I declare all the query methods for searching and statistics gathering. I have two classes that implement that interface, **RootUserProcessor** and **SimpleUserProcessor.** The difference between them is that at constructor in the moment of initializing the data from **AviationData.csv,** they initialize the data for different model. All the methods in these classes use the same logic (perform the query, save the result to the file, display the result), the only point is that in the **SimpleUserProcessor** class, some methods could not be implemented because of access restriction. In addition I have two static classes **HelperMethods** and **DecoratorsAndUIMethods.** In **HelperMethods** I have mainly the extension methods for saving data to the .csv files, I need to mention the **SaveSearchResults()** overloaded method, it takes **keyName and keyValue** parameters, I use them to identify what was the key query the user called (for ex: Greece, in **AccidentsByCountry** method). And the second static class **DecoratorsAndUIMethods,** as the name says, here I have the methods for UI (menus and displays), extension methods for information decoration.