I would like to begin by talking a bit about hashing and database sanitization, which are related to the security of our system. In our system, the database tier faces many threats and needs preventive measures. So, if let’s say an unauthorized person is the somehow gain access to the database he would know all the passwords, usernames, mobiles phones, emails and whatsoever of every single person using the system, this is the reason for which we chose to use hashing, this was, whenever any kind of data gets saved to the database, it is first hashed, which, to some extent, it gives it a level of encryption. We also tried to sanitize our database, which didn’t really work out for us, so, if let’s say someone was to input their name containing a database command, it will probably end-up breaking our whole system, just like in the famous comic.

The next topic I’d like to approach are the design patterns. Our overall feeling about them is that we could have made much better use of them. As an example, we made use of the Model-View-Controller in the second tier of the system, the middleware. The initial design of the system included monitoring, which had to be cut, but it is included to some extent in the View, a notification being received when a client is connected, or when he does a request in the system. The controller has a purpose to invoke methods on the model and display results to the view. The Model we used correlates a lot to the Database Model, which is a flow for the security of the system, because it exposes the Domain Model, but as a future development plan, it can be changed to a different structure. Because of the time limitations, we didn’t get to implement patters which would’ve helped us optimize the system, such as the Flyweight or the Singleton, but, because of the 3-tier design, in the future it will be easy to implement them into the application.

In order to establish authentication in our system, we made use of cookies, this way an “identity system” is created, the cookies making sure that the security information gets carried over the different web pages of the system, in order to keep the authentication and authorization parts consistent.

The back-up servers are one of the ambitious features that we were planning in the inception faze. To sum it up, we would one, for example, 2, or more, servers running at the same time, and the flow of clients would have been equally distributed to the servers, and, if one of them went down, all the traffic would just be redirected to the other server or servers. This could also help keep the downtime of the system low, and also allowed for updates on the system while it was running.

As I mentioned a bit earlier, monitoring was something we really wanted to include in our project, after we attended to a certain presentation here at VIA, but we realized it’s a time consuming feature to implement, but it is nice to have a way to monitor the traffic of the system, but our idea only came to life in a small extent inside the view of the middleware.

We also good use of version control. You weren’t here for our SEP2 exam, but during that exam we mentioned that, when we started using SCRUM, we were really reluctant about the whole scrum framework, but, in the end, after using it during the project, we were really surprised with how effective it was. Well, we can say that we have a similar feeling about GitHub and version control. When we started we were a bit skeptical about it, but mainly because we didn’t understood all the concepts, but, after using it for the project we can all say the it has been a really useful tool. We also used some other tools for planning and file-sharing, the main one being Slack, which nowadays is an industry standard for big projects, but also things such as google drive, drop box and even Facebook.

One last thing I’d like to mention is one more feature that feel down because of the time-pressure, and that is the rating system, which, after some discussions, we decided that it’s not a critical feature, so it had to be cut down.