**Non-functional Requirements**

**1.1 Performance**

The performance of the website is one of the most important issues. We will aim for the website to be loaded in 2 seconds when the simultaneous user count is less than 5.000. If the simultaneous user count exceeds 5.000, the time for the loading website will be closer to 4 seconds as the user count closes to the 20.000 limit. To accomplish that, the application must have small-sized image extensions like “.webp” and a well-organized database.

**1.2 Portability and Compatibility**

The application must be able to be implemented on different browsers at any time. When the users use the application through A browser and change the browser to B, the application must behave in the same way on browser B. Also, It is considered that the application must use new libraries and frameworks which make the application useful and easily understandable. So, the versions of browsers that our application can be implemented on are listed below:

* Chrome (version 49) (release: 2016)
* Firefox (version 50) (release: 2016)
* Safari (version 10) (release: 2016)
* Internet Explorer (version 10) (release: 2012)
* Edge (version 14) (release: 2016)

**1.3 Reliability, Maintainability and Availability**

Our application will be performed with success in 95 percent of the general use cases and success in 99 percent of the most important use cases such as approving or rejecting cases. If the application is in a failure, the time to fix it must not be greater than 1 hour. The users can access our web application at any time every day.

**1.4 Security**

The information stored in our database must be encrypted to be sure about their security. Every encryption and decryption algorithm will be generated randomly to be specific for that user. The ability to access the database must be authorized to people who have an “Admin” role. In addition to this, the application must store log records on the database.

**1.5 Usability**

Our application must be useful to new users. Therefore, the designs of the pages must be easy to understand and use. The “Exchange” application must meet this need by designing the pages according to new generation methods such as “Tab Bar Menu” and “Pop-up Menu”. In this way, the users can see whatever they need without any detailed search. Also, the application must have different interfaces for different authority levels to go away any kind of complication. Most used functions of the application must be located in the main perspective of the user’s view on the pages.