**Performance Requirements**

There are requirements for the improvement of the overall performances of the service:

* If a taxi doesn’t accept a request in a maximum of 5 minutes, the system forwards the request to another taxi and puts the first one at the bottom of the queue
* The user must get in the taxi by 5 minutes from the arrival of the taxi
* In order to share a ride, the different users must be on the same route in a range of 500 meters

**Logical database requirements**

The database must store every user’s personal data communicated during the registration. Moreover it must store every info about the rides, the number of passengers, the total fees and the partial fees (in the case of a shared ride).

The information must be maintained for the time requested by the law of every country regarding the storing of data and must be accessible respecting the privacy laws of every countries.

**Design constraints**

The design constraints will be inherited from the coding language that will be chosen by the developers, as no code language was imposed in the requirements

**Standards compliance**

Every component of the application must be in compliance with the current standards and must not use any proprietary technology.

**Software system attributes**

**Availability**

The system must be available 24/7 and reachable anytime with an internet connection

**Reliability**

The maintenance of the system must be performed in 1 hour lasting shifts, as the system cannot be offline for more than 1 hour every 12 hours.

In case of a failure the system must be online again in a maximum of 1 hour.

**Maintainability**

The application does not provide any specific API for the maintenance of the system, but it will be mandatory to well document the code, to inform the future developers of how the application works and how it was developed

**Portability**

The web application runs on any version of Windows from Windows 7 included, the mobile application runs on every version of Android after 4.0.0 included and on any version of iOS after iOS 4 included.

The web application runs on any browser which supports HTML5

**Security**

For the users:

The users are required to choose a personal username and a password and it is up to them to protect and not divulgate these information. Our system guarantees the protection of the users’ personal data according to the laws of the countries where the application is used.

The system requires a password composed at least of 8 characters containing a capital letter, a symbol and a number, in order to improve the security. The personal data are stored with a RSA 2048 bit encryption in order to prevent any theft in case of a breach in the system. Every communication with the user is performed by sending emails on the address that he/she is required to confirm after the registration, so that the security and the privacy of the communications depend only on the secrecy of the user’s email.

For the taxi driver:

The taxi drivers, just like the taxies, are identified by a unique and personal identification number. The taxi driver is required to log in the application on the tablet installed in the taxi by using the identification number above at the beginning of every shift. In this way the interaction with a thief or a spiteful person is avoided. The personal number mentioned above is given directly to the taxi driver.

For the system:

The system is protected by an advanced firewall that prevents cyber attacks from the outside. There are also other two firewalls between the web server and the application server and between the application server and the database.

Another important secure method is the implementation of the https connection instead of the normal http to guarantee the confidentiality and the integrity of the communications and also mutual authentication. SSL is resistant to man in the middle attack (MITM) but needs a server certificate signed by a Certification Authority(CA).

The database is also implemented in a way that avoids the known SQL attacks.