**Functional Requirements**

**1. Face Recognition:**

Face Recognition software consists of recognising the image of the user using camera. If the user is recognised then the software sends the signal through Raspberry Pi to relay to perform the door unlock operation.

**2. Power Supply**: The power supply is required for Raspberry Pi loaded with face recognition software for the security system to work.

**3. Raspberry Pi**: Raspberry Pi is for running the face recognition software which will grant access to security system.

**3. Internet Connectivity**: Internet Connectivity is required to send the permission request to the server which will be then validated by the admin.

**4. Relay Operation**: After the face recognition step the relay operation is to be performed in case the face is recognised.

**5. Camera**: Camera is for taking the image of the user and perform face recognition afterwards.

**Non-Functional Requirements**

**Reliability:**

System should be reliable enough with high accuracy rate.Also it must not get unlocked using image of a person instead of actual person.It must not get unlocked by any unknown person which is not in the database.

**Response time:**

System should have very less response time and should unlock the door quickly on identifying a correct user.It should take small processing time.

**Accessibility:**

The website and mobile application should be accessible to user at all times.The interface of website and mobile application should be easy to use for the user.

**Stability:**

The system should be stable enough with minimum number of resets required.It should have exception handling mechanism and should avoid getting in hanged state.

**Maintainability:**

The system should be easy to maintain over long time .Any modifications required after deployment should be easy to make.