**Test Plan – Group 4**

**AUTOMATIC DOOR LOCK SYSTEM**

Functionalities that we can check on our system

* Measure minimum response time between reading two authorized RFID tags.
* Measure the maximum distance that the RFID reader can detect the RFID tag
* Measure the minimum time taken to update the website in any attempt of access
* Measure the minimum response time between taking two authorized fingerprints
* Measure the maximum distance that the IR sensor can detect
* Discover maximum number of concurrent users that system can handle
* Track issues and bugs related to web application

What we check

* Measure minimum response time between reading two authorized RFID tags.
* Discover maximum number of concurrent users that system can handle
* Track issues and bugs related to web application

What we don’t check

* Measure the maximum distance that the RFID reader can detect the RFID tag
* Measure the minimum time taken to update the website in any attempt of access
* Measure the minimum response time between taking two authorized fingerprints
* Measure the maximum distance that the IR sensor can detect

1. **Objective:** Measure minimum response time between reading two authorized RFID tags - Performance Testing

**Inputs:** RFID tags and our system

**Measured Parameters:** Response time

**Expected Output:** Minimum response time

**Assumptions made:**

* We check 10 times and take response time at each time. And assume that minimum of those 10 is the minimum response time between reading two authorized RFID tags.
* Assumed human errors at each time are same.

**Testing Process:** In the code take the started time when the LCD displays WELCOME and display the time in LCD display. Then take the end time when it again displays WELCOME and display the time in the display.

The difference will be the response time. Repeat this 10 times and take minimum response time from those 10.

**2. Objective:** Discover maximum number of concurrent users that system can handle – load testing for web application

**Inputs:** web application of our system

**Measured Parameters:** Maximum number of concurrent users that system can handle

**Assumptions made**:

**Testing Environment**:

**Method:** Using the tool “Apache Jmeter” analyze the performance using throughput because throughput represents the ability of the server to handle the heavy load**.**

**3. Objective:** Track bugs related to web application - Integration Testing for Web application

**Input:** Web application of our system

**Measured Parameters:** Bugs related to web application

**Expected Output:** Web application without any bugs

**Assumptions made:**

**Testing Environment:**

**Testing Process:**

**Method:** Detect and handle issues and bugs related to web application using the tool “JIRA”