### **Non-Functional Requirements to Test**

Below are the non-functional requirements we have decided are suitable to test with the available time and resources:

| **Requirement Code** | **Usability Component** | **Description** | **Metrics to Use** |
| --- | --- | --- | --- |
| NFR-001 | Error Rate | It must ensure that the user makes the least errors possible when filling out the form. Errors are described as submitting wrong information to the application. | User errors count. |
| NFR-002 | Intuitive | It must be easy and straightforward for the user to fill out the form. | Number of misunderstood actions during the think-aloud session. |
| NFR-003 | Satisfactory | The sign-up information fields must be pleasant for the user to use and input their information. | Count of users who found the information field pleasant to use. |

We decided to evaluate these non-functional requirements because they reflect the main issues the system had on voting day. We want to assess whether the number of user errors when entering the CURP in a simple text field decreases compared to other methods of requesting the information. Another important aspect to consider is the level of user satisfaction during registration, as several users expressed dissatisfaction with some registration components during previous tests. We also want anyone seeing the interface for the first time to understand the steps they need to follow.

### **Usability Test**

**2.1 Scope:** The citizen registration form component for entering the CURP will be tested.

**2.2 Objective:** For the CURP component, there will be 2 prototypes with different proposals for entering the CURP in the form. One of the prototypes is the original used on voting day on January 28.

The objective is to evaluate which prototype best meets the quality attributes selected for testing. They will be evaluated using the metrics provided by the attributes.

**2.3 Instruments to be used for the test:**

* Google Forms for satisfaction surveys.
* Voice recorder to record the session.
* Excel to note the test results.
* Script to conduct think-aloud with the users.
* Computer with access to a web browser to run the functional prototypes.

**2.4 User Selection:** The Mérida City Council will be asked to call 12 citizens aged 45 to 55 from any district (preferably from different districts) to attend the prototype tests. It is expected that at least 5 people will test both prototypes.

**2.5 Test Duration:** The test is expected to last 5 to 10 minutes per person for each prototype, so in the worst case, the test will last 2.5 hours.

**2.6 Test Procedure:**

**2.6.1 Preconditions for the Test:** Participants will be shown a Google document with a task that outlines a scenario for testing both prototypes. The tasks with the scenarios can be found in the following folder:

The test facilitator should have the OBSERVATION ARTIFACT for the prototype being tested at hand.

The CURP observation artifact and usage instructions can be found at the following link: [Google Drive link](https://drive.google.com/drive/folders/1zDNlqG9p5dGvl1qiEpJVIWj6LBFqjC5Y).

The satisfaction survey to be applied to each participant after the session should also be considered. The survey can be found here.

**2.6.2 Test Start:** The facilitator will show the participant the Google Docs with the task outlining a test scenario for the prototype to be tested. This is when the think-aloud script is used to start the test.

Once the prototype test is completed, the recording can be stopped and saved with the participant's name and the prototype tested.

The next prototype is then tested. Once the participant has tested both prototypes of each component, the session ends.

**2.6.3 Post-Test Procedure:** The user should be given the questionnaire to measure prototype satisfaction. The data collected from the questionnaires and the recording should be used to fill out the observation artifact data corresponding to each prototype.