



# Website Application User Manual

## **About**

LIPAD is a digital Geographic Information System (GIS) platform that uses machine learning algorithms and data collected from unmanned aerial vehicles (UAVs) to provide accurate and real-time information on coffee leaf rust incidence and severity. It enables early detection and rapid response to outbreaks, allowing farmers to make informed decisions and protect their crops. The platform's user-friendly interface facilitates the visualization and exploration of coffee leaf rust data, helping identify hotspots and track the disease's spread. LIPAD revolutionizes the coffee industry by optimizing operations, reducing labor and cost, and improving the sustainability and profitability of coffee farming.

## **Website General Instructions**

**Here are detailed instructions for utilizing the website for identifying and mapping out the coffee rust-affected regions of the coffee plantation:**

1. Collect images of the coffee leaves.
2. Register and create then log in to the website application <insert link>.
3. Go to the plantation page to upload the images collected in the "UPLOAD FILES" tab.
4. Interact with the "Choose Files" button then after selecting the files you want to be processed for detection click the "UPLOAD" button to run the detection process and wait for it to reflect on the page.
5. Go to the dashboard and see the markers placed on the map and users can interact with the markers to view the image of the plant with coffee rust detected.

## **Data Collection**

Users can both utilize an Unmanned Aerial Vehicle (UAV) or a phone with active GPS location as input to the website.

### **For Drone:**

1. Turn on the UAV.
2. Survey the area you want to be detected for coffee rust.
3. Control the UAV or set a flight plan/route over the coffee plants.
4. Capture images where the leaves are visible enough to be detected by the website's AI.

### **For Phone:**

1. Go to the coffee plantation.
2. Turn on the GPS of the phone.
3. Capture images of leaves.

## **Introduction to the Website**

Users are classified into public and private user/s in which have specific features that are limited to their corresponding usage.

### **Public User**

- Preset Dashboard
- About Us
- How It Works
- Registration
- Login

### **Private User**

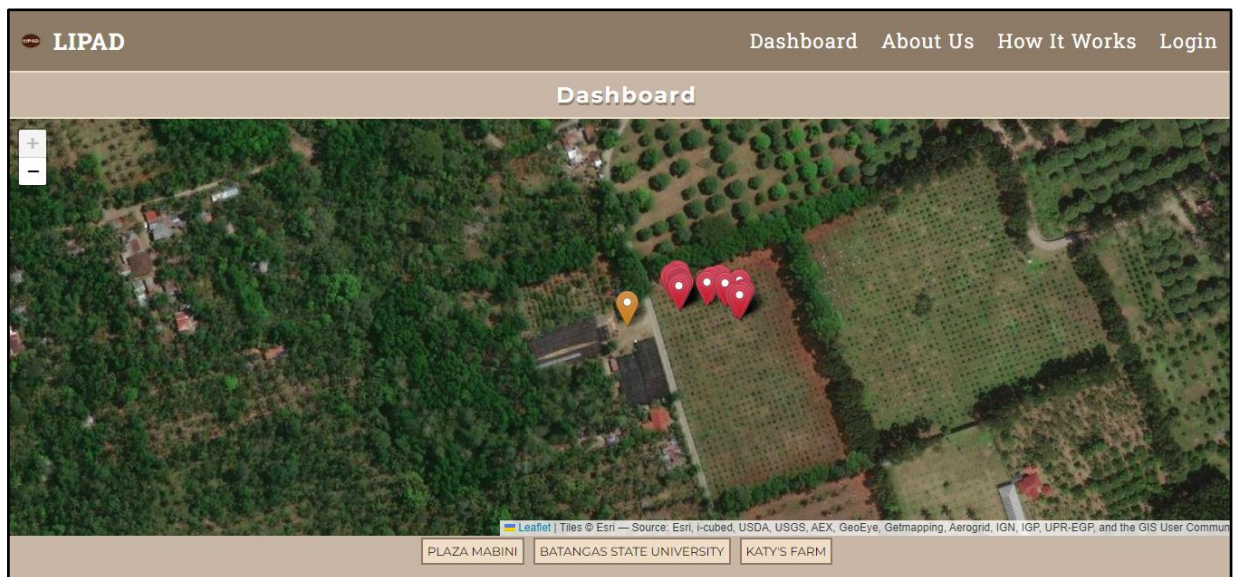
- Custom Dashboard
- Farm Details
- Plantation
- Logout

## **Public User Interactions**

Public users are limited to only viewing the preset dashboard, about us page, how it works page and login page.

### **Preset Dashboard**

Public users are greeted with a preset dashboard with already placed markers with detected coffee rust on an example coffee plantation which is Katy's Farm.



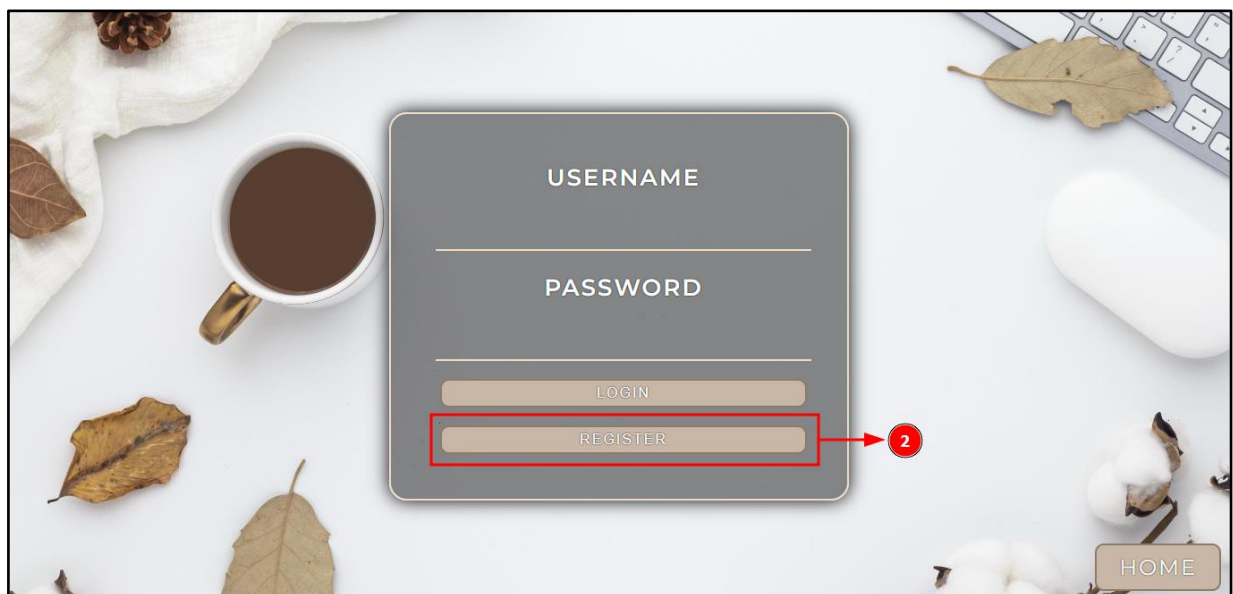
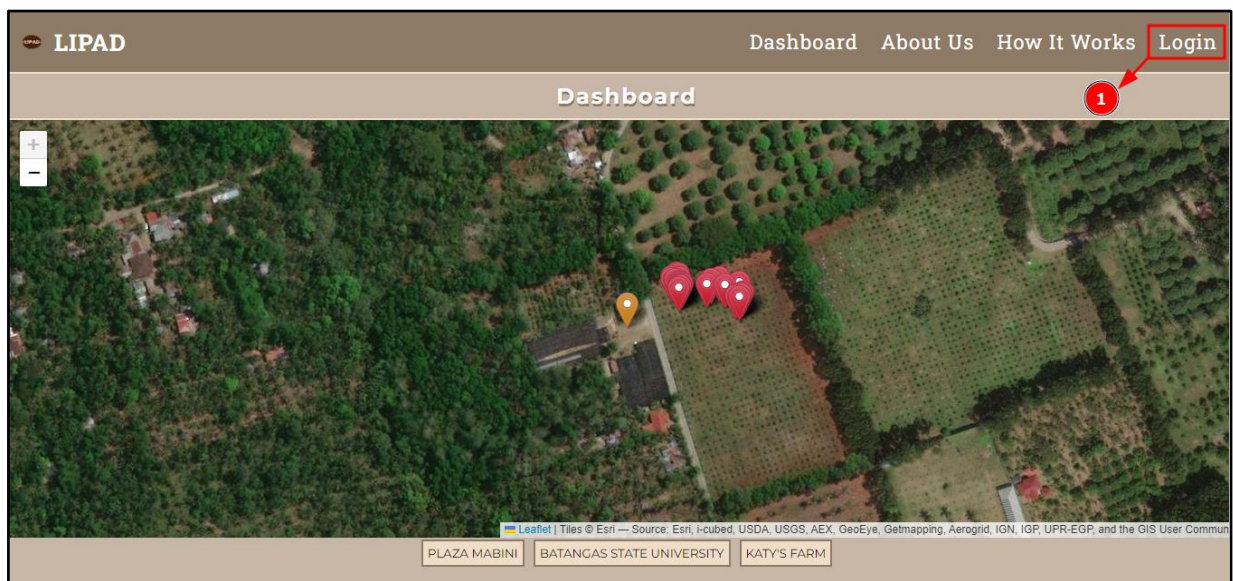
## About Us Page

The About Us page displays information about the website's information based on its importance, advantages, uses and the problem it's trying to solve.

## How It Works

The How It Works page highlights the information based on how the websites operate which involve the processes such as data gathering, data processing using Artificial Intelligence (AI) and plotting the areas.

## Registration



A registration form with a dark grey background and white text. The form is outlined with a red border. It contains the following fields: FIRST NAME, LAST NAME, CONTACT NUMBER, EMAIL ADDRESS, PASSWORD, FARM NAME, ADDRESS, LONGITUDE, and LATITUDE. Below the fields are two buttons: REGISTER and CLOSE. Red arrows point to the REGISTER button (labeled 4) and the PASSWORD field (labeled 3).

**If you want to register as a new user or create an account, do the following steps:**

1. From the dashboard page click the Login button to access the login and registration page.
2. Click the register button and this will show the registration page.
3. Input user credentials such as first name, last name, contact number, email address, password, farm name, address, and the longitude and latitude of the farm.
4. Once all the necessary information is inputted click the register button and this will register the account.

## Login

A login form with a dark grey background and white text. The form is outlined with a red border. It contains the following fields: USERNAME and PASSWORD. Below the fields are two buttons: LOGIN and REGISTER. Red arrows point to the LOGIN button (labeled 2) and the PASSWORD field (labeled 1). The form is set against a background of a cup of coffee, leaves, and a keyboard. A HOME button is visible in the bottom right corner.



**If you have already registered an account it is now safe to proceed to logging in.**

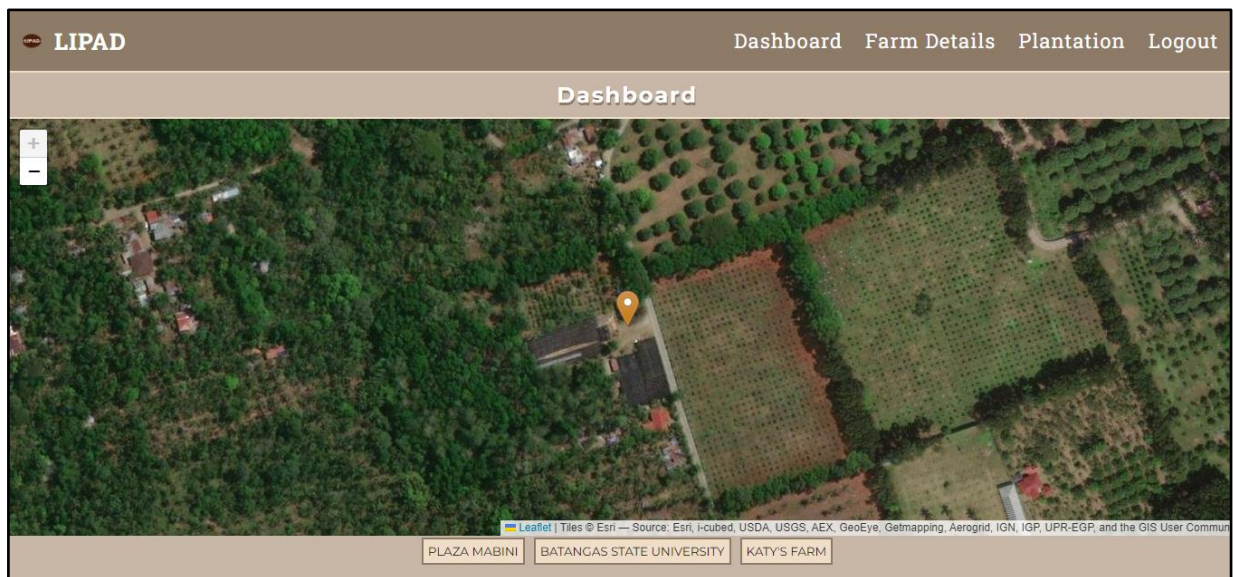
1. Click the Login in the navigation bar.
2. A login page will be prompted for the user to input their username which is the email address used for registration and the password.
3. Press the Login button to proceed.

## **Private User Interactions**

Private users have access to a custom dashboard based on the coffee plantation of their choice and along with this private users can upload images of the coffee plants to be mapped out according to their plantation of choice.

### **Custom Dashboard**

For private users they are greeted with a custom dashboard which is empty at first they yet have to input their images of infected coffee leaves they want to plot.

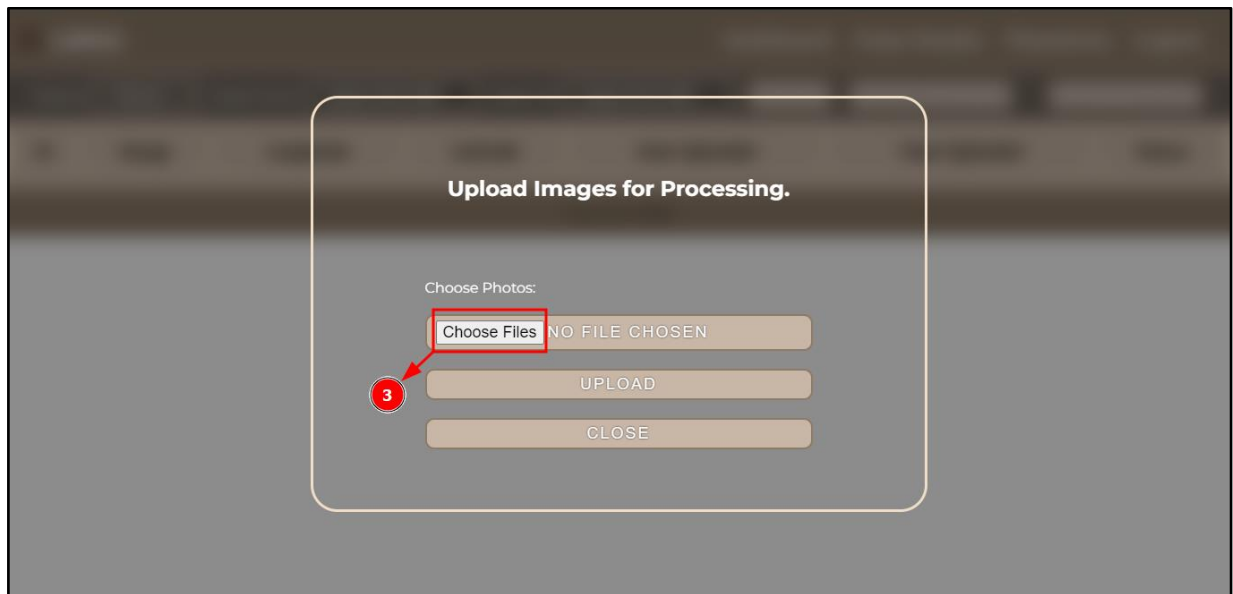
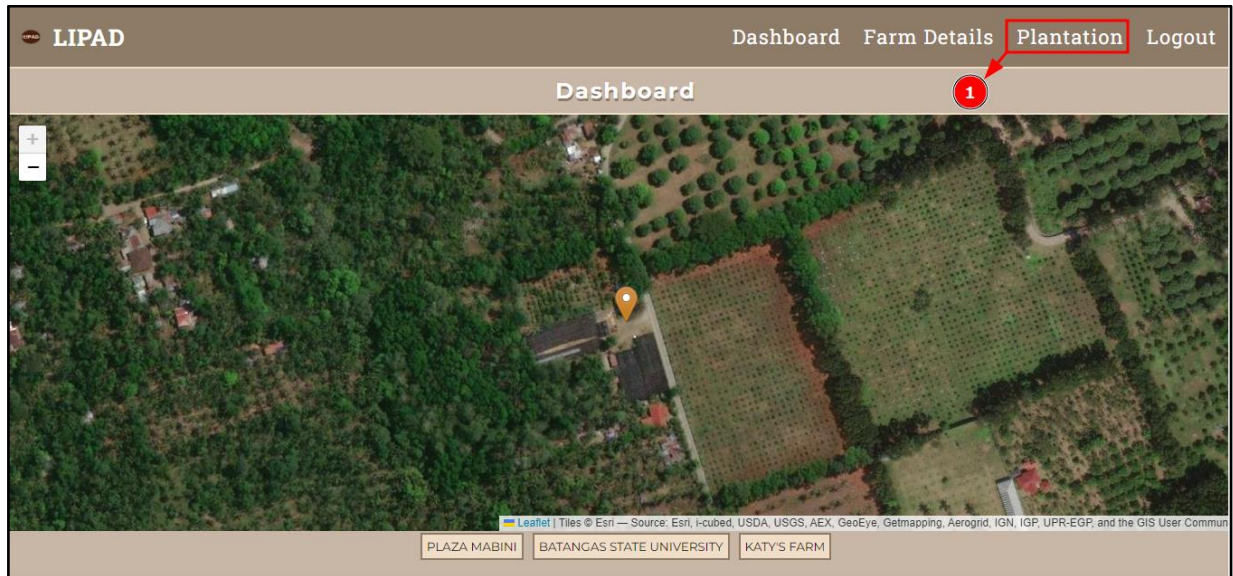


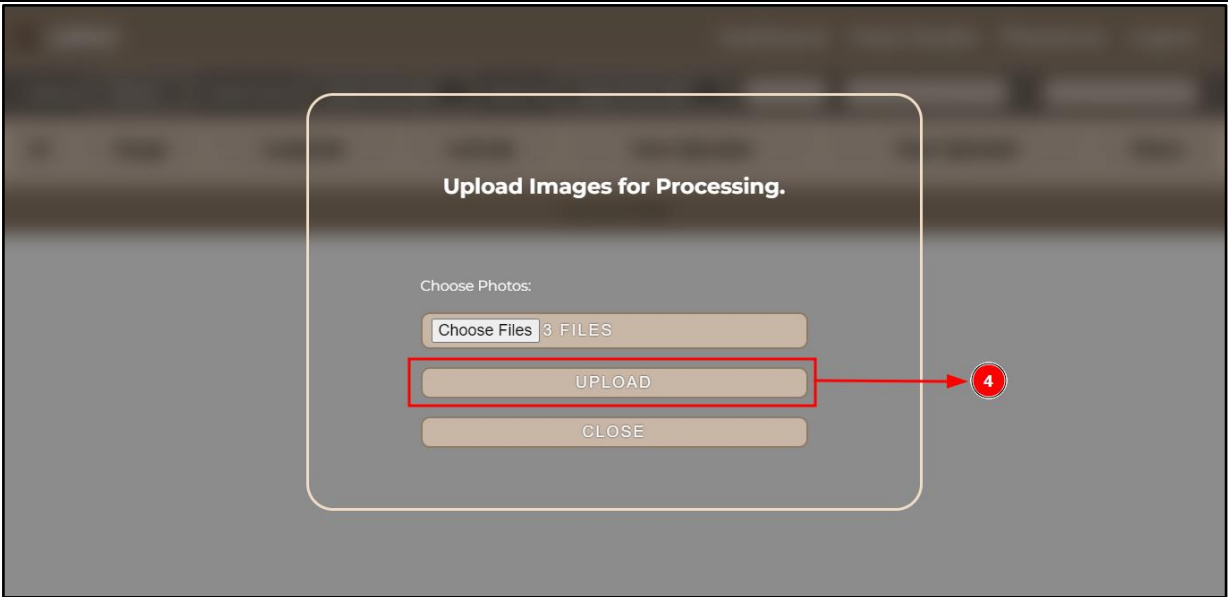
**\*\*\*Example only custom dashboard set to Katy's Farm\*\*\***

### **Farm Details**

This page contains information about the farm, the owner of the farm as well as the account details if they want to change their username and password. The information in this page reflects that of what the user has entered in the registration page.

## Plantation





LIPAD

5

6

Dashboard

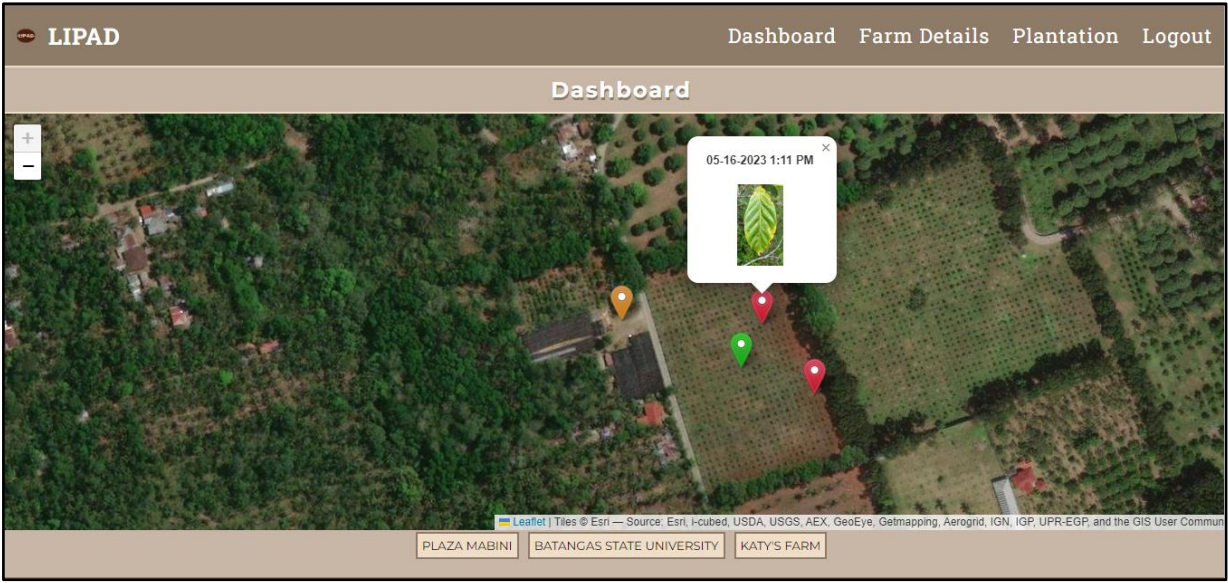
Farm Details

Plantation

Logout

Status: Status Date From: yyyy-mm-dd Date To: yyyy-mm-dd FILTER RESET FILTERS UPLOAD FILES

ID	Image	Longitude	Latitude	Date Uploaded	Time Uploaded	Status
Katy's Farm - 28		121.2006305555556	13.92829444444443	May 16, 2023	1:06 PM	Infected
Katy's Farm - 29		121.2001944444445	13.928441666666666	May 16, 2023	1:08 PM	Healthy
Katy's Farm - 30		121.2003166666667	13.928691666666666	May 16, 2023	1:11 PM	Infected





**To access the upload images features follow the following process:**

1. From the dashboard page click the Plantation tab in the navigation bar.
2. Now once in the plantation page interact with the upload files button.
3. Choose the files you want to be mapped and processed for detection of coffee rust.
4. After selecting the files click the upload button to start the processing.
5. Users can use the filter options if they want to filter according to the status (all, infected, healthy), a starting date and end date.
6. To see the results go back to the dashboard where the uploaded images are plotted and processed.

## **Help**

We're here to provide you with assistance and solutions for any questions, concerns, or issues you may encounter while using our web application. Our dedicated LIPAD support team is available to help you every step of the way.

### **Contacting Support**

If you need assistance, feel free to reach out to our support team. You can contact us conveniently through two channels:

**Phone:**

Call our support hotline at [+63 927 602 1289](tel:+639276021289). Our knowledgeable representatives will be ready to assist you and address your inquiries or concerns.

**Email:**

Send an email directly to our support team at [lipad2023.inquiry@gmail.com](mailto:lipad2023.inquiry@gmail.com). Please provide detailed information about the issue you're experiencing, and we'll get back to you promptly with a solution.

We value your experience with our web application, and our support team is committed to resolving any difficulties you encounter. Don't hesitate to contact us—we're here to ensure your satisfaction and make your journey with our web application as smooth as possible.