

Advanced Software Engineering

Increment 1

SMART POLICE

Team 14

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First Increment Report

Existing Services/REST API

API's Used

Facebook API:

We have integrated Facebook API for our login module using OAuth 2.0 security. Through this we can sign up directly into the application as a facebook user.

OpenALPR:

We use this to recognize license plates from camera streams.. The obtained data is stored either in the cloud or we can store it in our local network. With this we can analyze still pictures. We can integrate this into our code directly.

API's Forthcoming:

- Google Maps API
- Facebook API
- OpenALPR

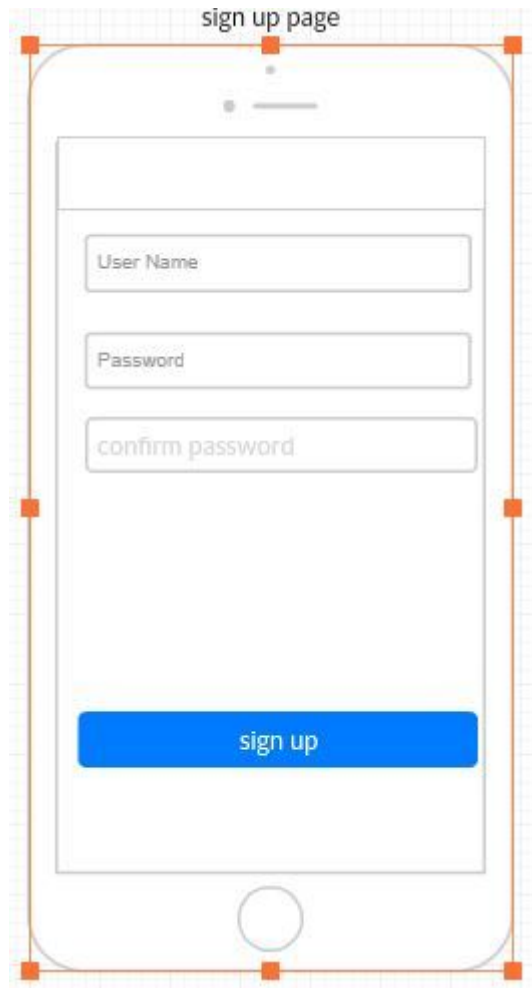
Detail Design of Features (using tools)

Wireframes

Login Page Wireframe:



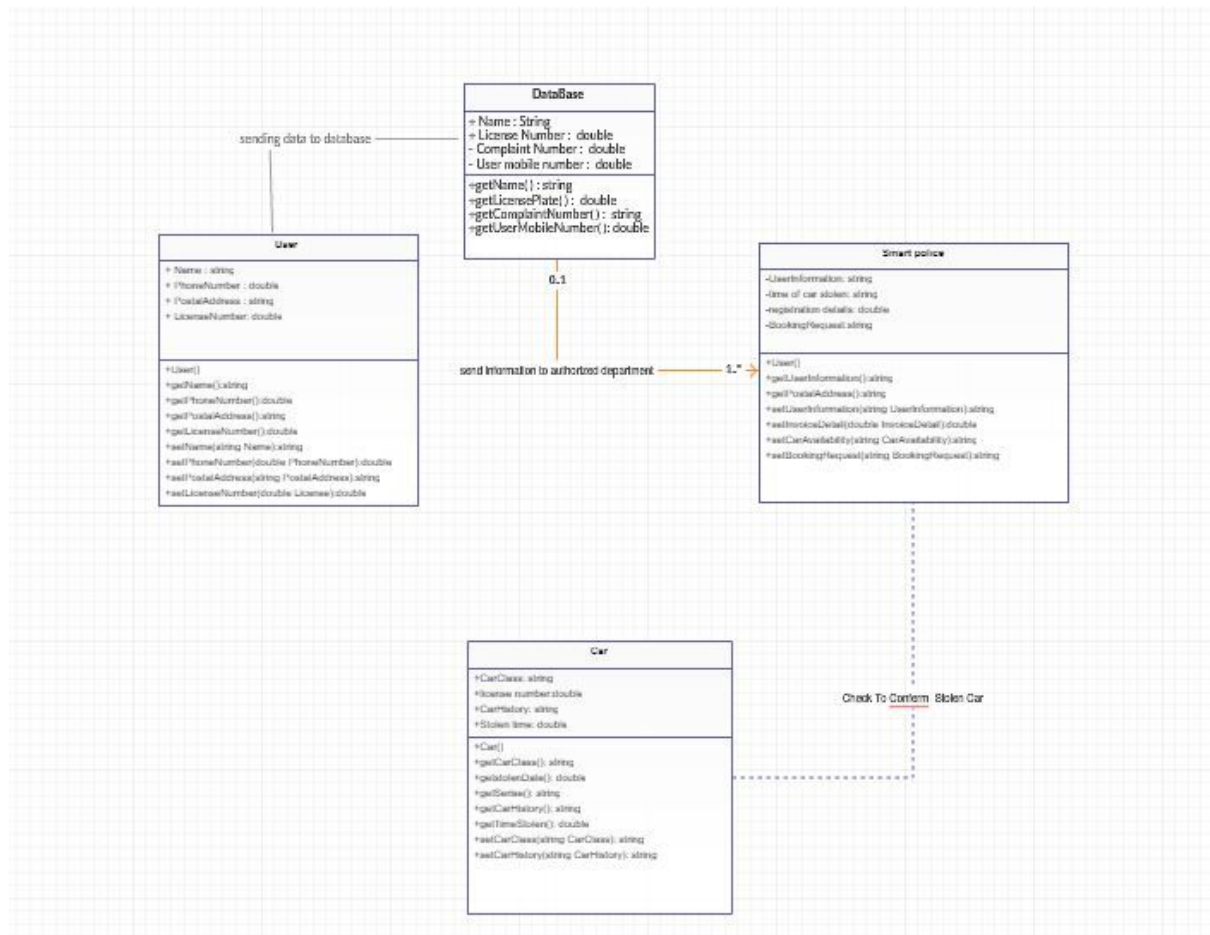
Signup Page Wireframe:



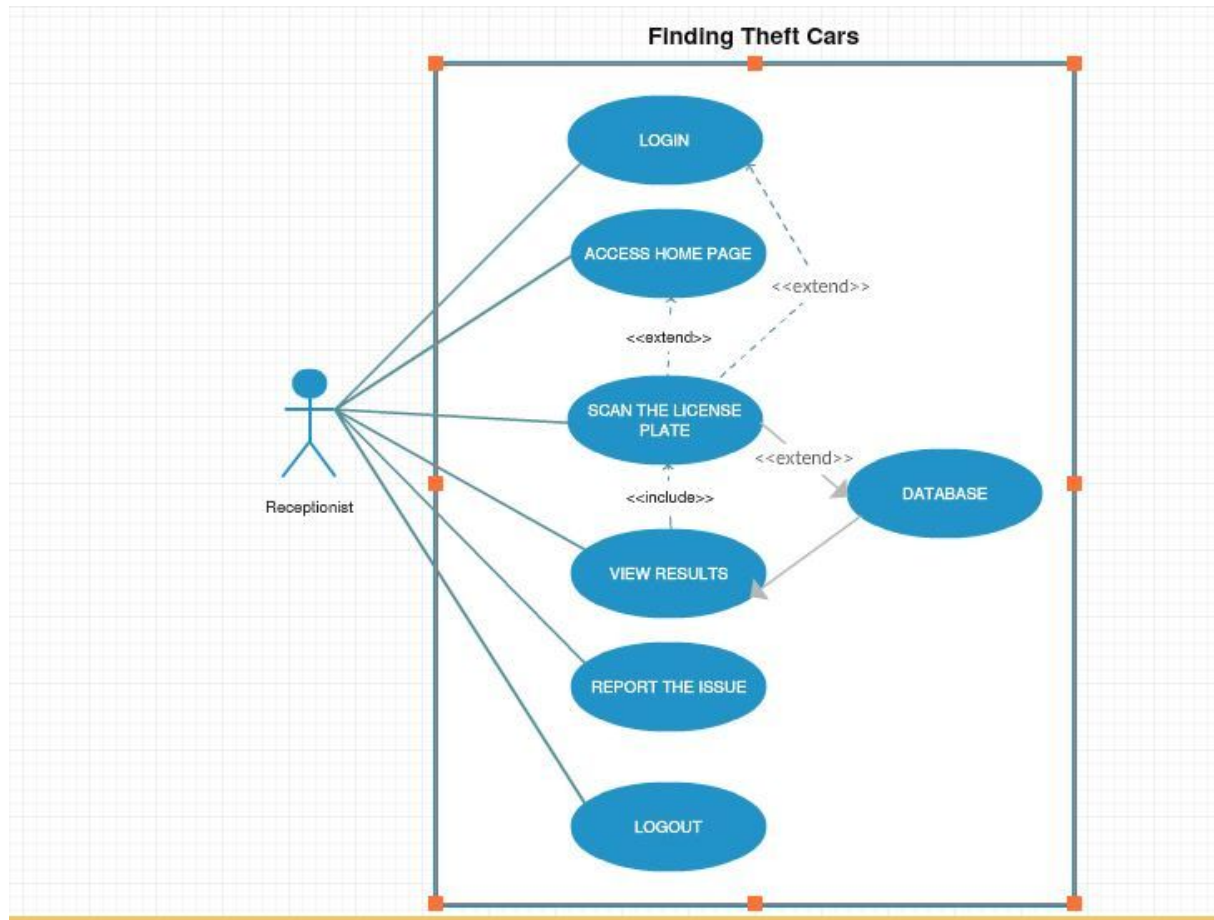
Home Page Wireframe



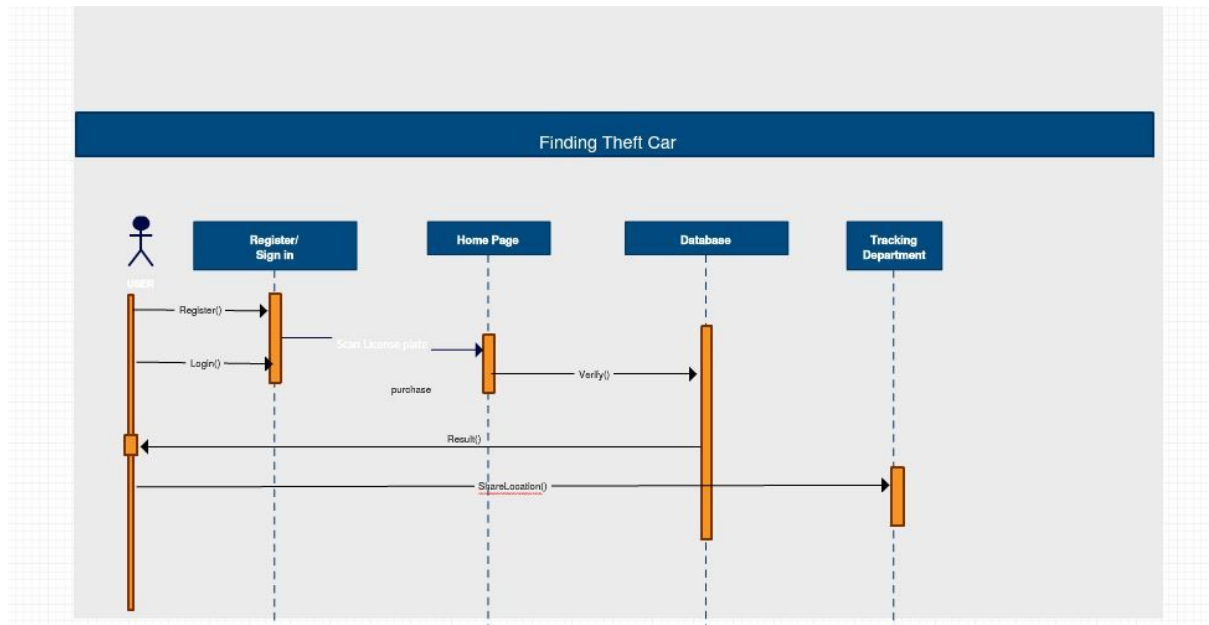
Class Diagram



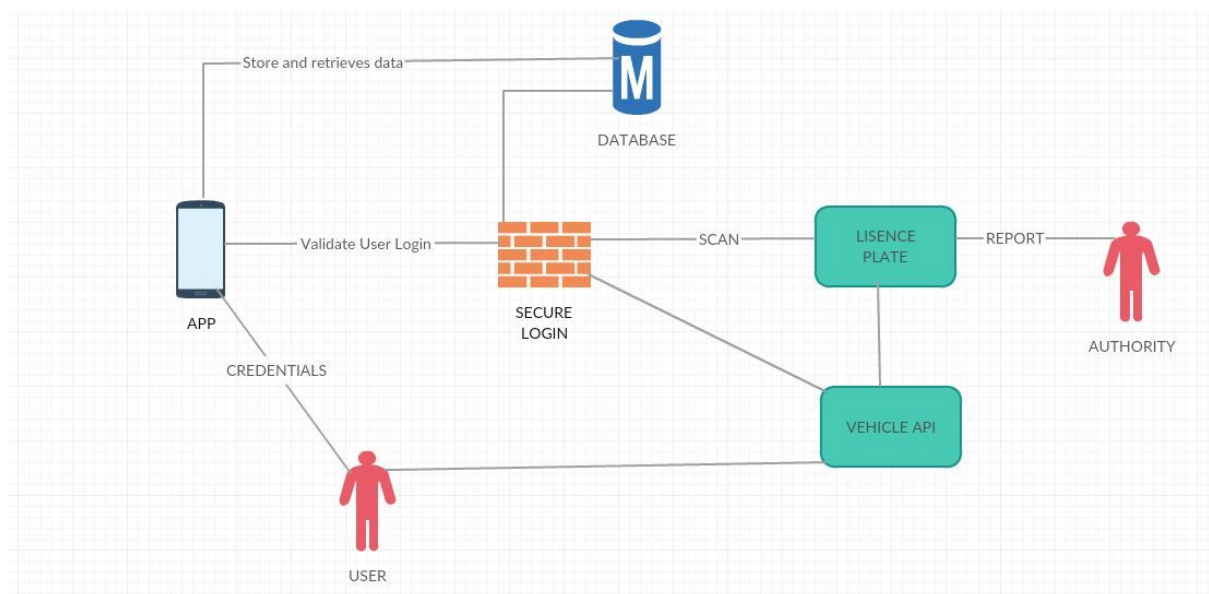
Use case Diagram



Sequence Diagram



Architecture Diagram



User Stories

As a	I want to	So that
User	Login to the application	I can access the resources of the home page
User	Access the camera	I can able to get the picture
User	Scan the license plate store	I'll be able to know either the car is stolen or not.
User	Know the result about the car	We can send the tracking of the location.
User	Get the history/notifications	I'll be able to reach all the information or the data.

Unit Testing

Test cases for Login and Sign Up Pages

Case	Test Case Description	Expected Result	Actual Result	Result
Login	Invalid Username and Invalid Password	Error Message should pop up, stating that Invalid credentials and Re-enter valid credentials.	Error Message should pop up, stating that invalid credentials and Re-enter valid credentials.	Pass
Login	Invalid Username and Valid Password	Error Message should pop up, stating that	Error Message should pop up, stating that	Pass

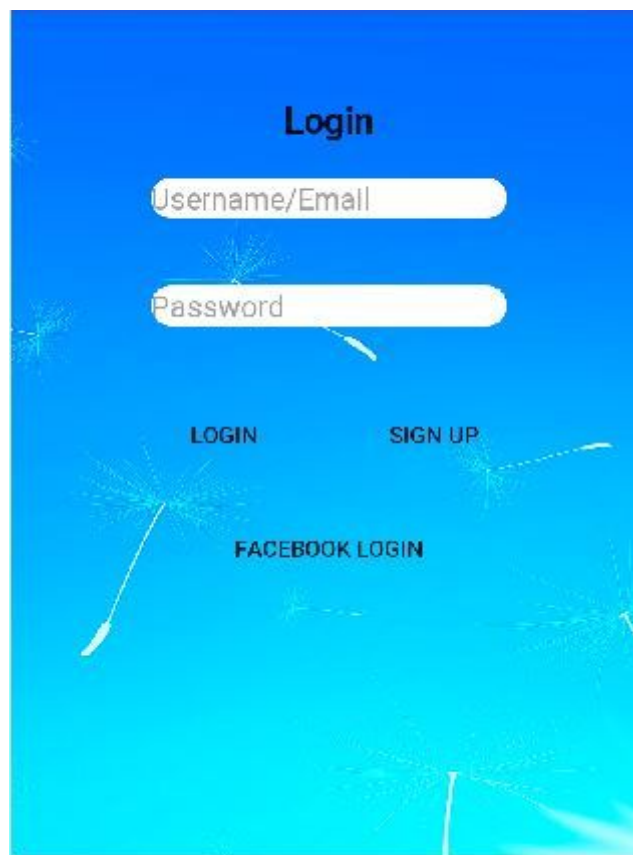
		Invalid credentials and Re-enter valid credentials.	invalid credentials and Re-enter valid credentials.	
Login	Valid Username and Invalid Password	Error Message should pop up, stating that Invalid credentials and Re-enter valid credentials.	Error Message should pop up, stating that invalid credentials and Re-enter valid credentials.	Pass
Login	Valid Username and Valid Password	Re-direct to Home Page.	Re-direct to Home Page.	Pass
Signup	Must satisfy email ID format	Error Message is please enter a valid email ID.	Error Message is please enter a valid email ID.	Pass
Signup	Satisfy password length to be greater than 8	Error Message is please enter a valid password.	Error Message is please enter a valid password.	Pass
Signup	Password and confirm password fields must	Error Message is passwords are not same.	Error Message is passwords are not same.	Pass

Implementation and Deployment

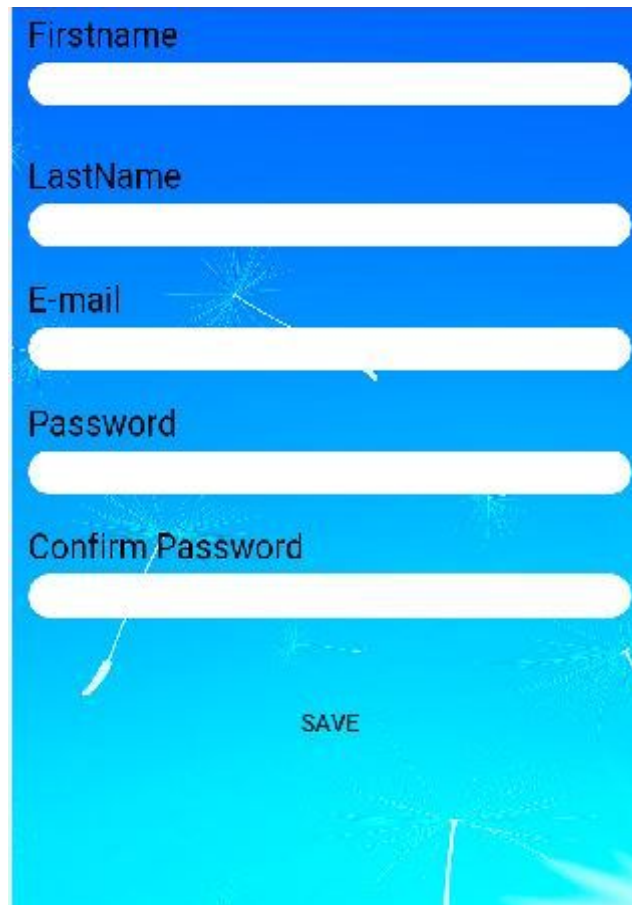
We have implemented our mobile application using the mentioned API's and modules.

The process flow of the application can be viewed in the below screenshots,

- The Login Page design and fields for user input are given in the Smart Police application. It also consists of Facebook for user to sign in with their respective credentials.

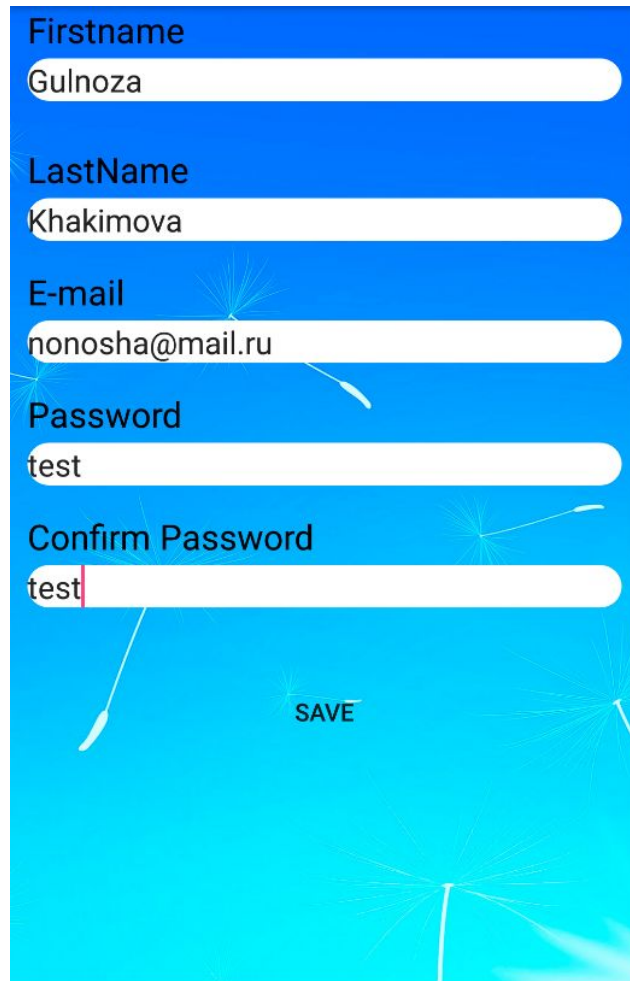


- The Registration Page for new users consists of different fields in which they have to enter all of them to process for the access of Smart Police services. Validation is done for email ID, password and blank fields in this module. The screenshots of Registration Page and all validations can be observed below,



The screenshot displays a registration form on a blue background. It includes five input fields with labels: 'Firstname', 'LastName', 'E-mail', 'Password', and 'Confirm Password'. Each label is positioned above its corresponding white input field. At the bottom center of the form is a green button labeled 'SAVE'.

- On successful registration the details of the user are stored in the local storage of the browser, which are used for future login authentication. Below screenshot will give you details,

A screenshot of a registration form with a blue background and white text. The form contains five input fields: 'Firstname' with 'Gulnoza', 'LastName' with 'Khakimova', 'E-mail' with 'nonosha@mail.ru', 'Password' with 'test', and 'Confirm Password' with 'test'. A red vertical line is visible at the end of the 'Confirm Password' field. Below the fields is a white 'SAVE' button. The background of the form has a faint dandelion pattern.

Firstname
Gulnoza

LastName
Khakimova

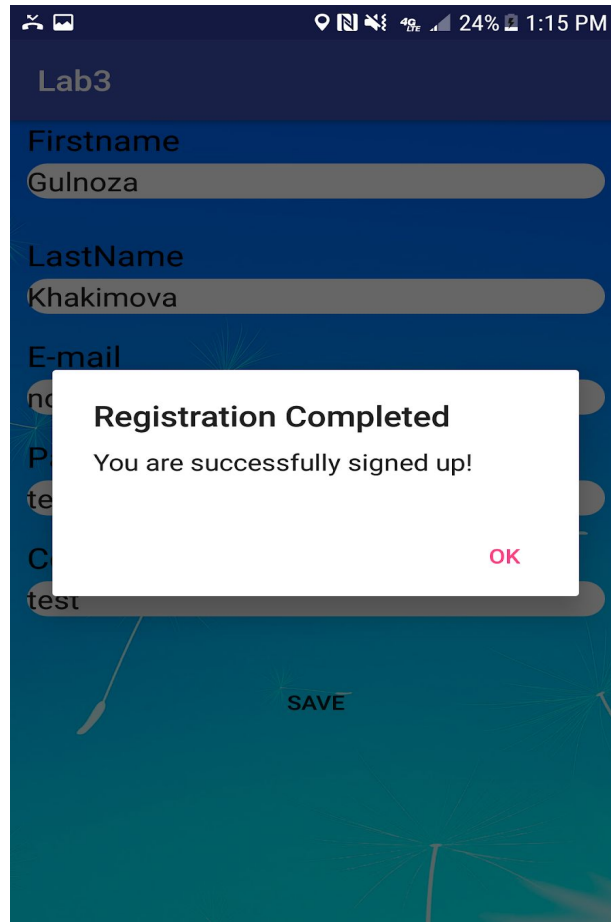
E-mail
nonosha@mail.ru

Password
test

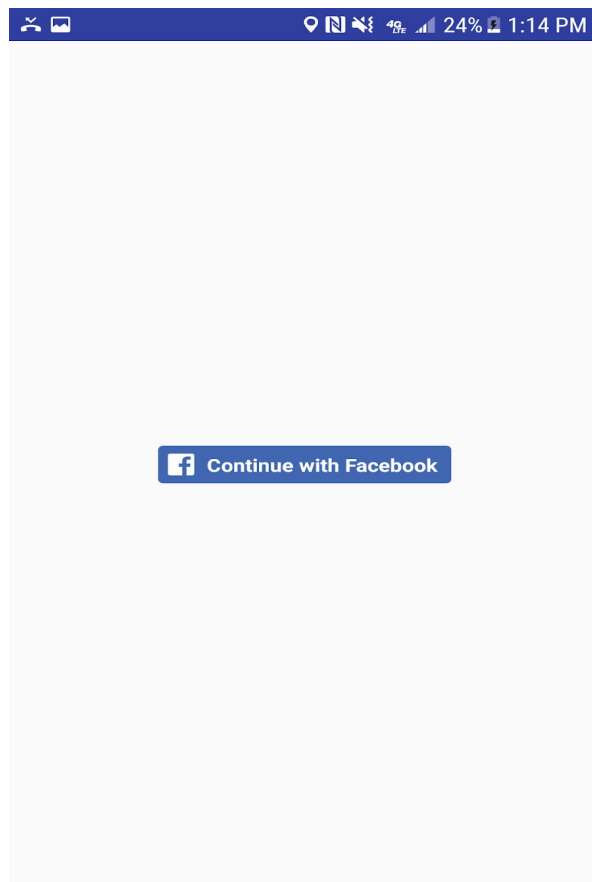
Confirm Password
test

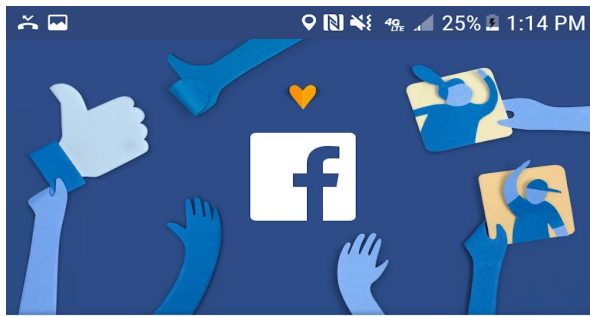
SAVE

Now, user will give the registered details for accessing the Smart Police application system. Below are the screenshots for validation of Login Page and success pop up window,



Facebook API screenshots are given below,





Afrikaans • العربية • More...

Phone or Email

Password

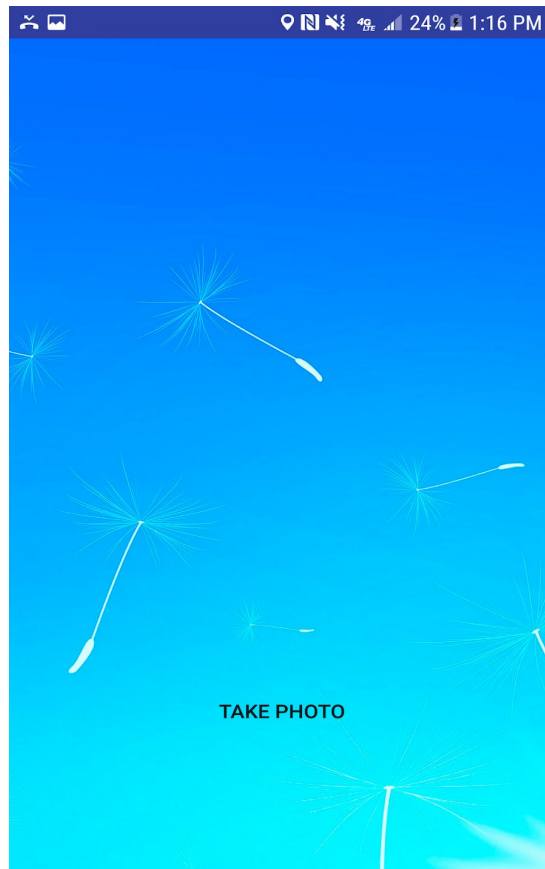
LOG IN

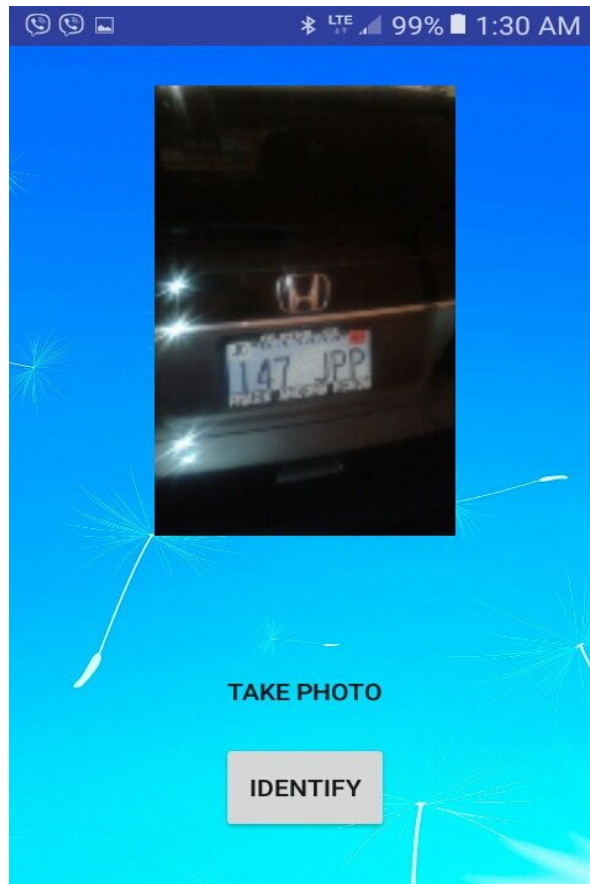
[FORGOT PASSWORD?](#)

OR

[CREATE NEW FACEBOOK ACCOUNT](#)

- On successful user login it redirects to main home page of Smart Police where user can be able to access all resources of the application,





- Here we take the picture of the license board of the car



- In the camera we can crop the picture according to our requirement.



- This is the final output of the phase1

Github Wiki Page

The github wiki page URL for the screenshots and the process flow is updated in the following link

<https://github.com/Gnkhakimova/CS5551-Project>

Video Link

<https://youtu.be/qnH8t8mttpo>

Project Management

Implementation Status Report

Technologies Used

We have collaborated various technologies in the development of the project and in building the application. Some of them are,

- Java
- Xml
- Angular JS
- JavaScript

Work Completed

The completed tasks in this increment are,

- Design and implementation of Login and Register Pages,
- Design and base layout of the Home Page,
- Architecture and flow of the application is defined,
- API's are successfully integrated in the application.

Work to be Completed

The work to be completed for next increment is,

- Adding the layout and designing for remaining pages,
- Navigation through hyperlinks,
- Integration of other Restful API's,
- Minor changes to user interface.

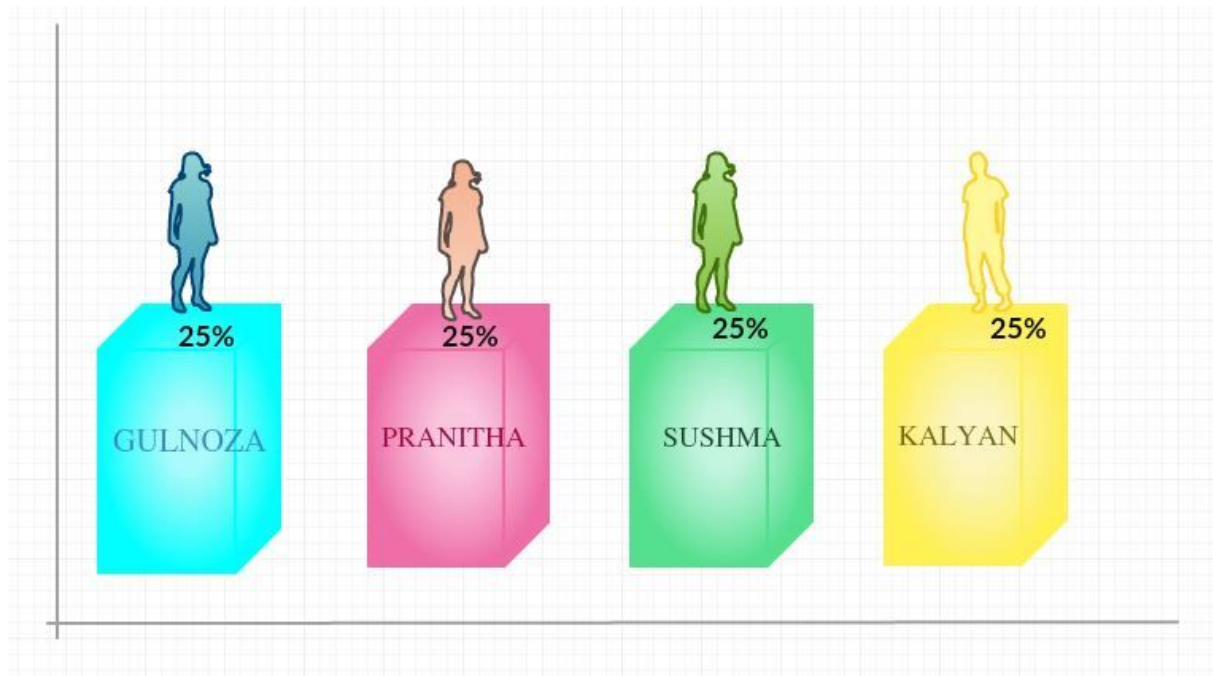
Responsibility and Time Taken

- Login Page, Gulnoza 3 hr.
- Registration Page, Gulnoza 3 hr.
- Design Elements, Pranitha 3½ hr.
- UML Diagrams Creation, Kalyan 5 hr.
- Wireframes, Sushma 3½ hr.
- Social Login OAuth, Kalyan 3½ hr.
- Integrating Pages, Sushma 2 hr.
- Home Page, Kalyan 3 hr.
- User Stories, Sushma 3 hr.
- Unit Test cases, Pranitha 3hr.
- Local Storage Implementation, Gulnoza 5 hr.
- Project Increment Report, Pranitha 5 hr.

Contributors

- Pranitha Saroj Karumanchi- **25%**
- Gulnoza Khakimova- **25%**
- Sushmasri Surapaneni- **25%**
- Sai Kalyan Vytla- **25%**

Below is the bar graph that represents contribution of each person in the team towards project,



7. Bibliography

1. www.creately.com
2. www.angularjs.org
3. www.developers.facebook.com
4. www.console.developers.google.com