

Assignment-1

PA1469 HT22 LP2 MOBILE APPLICATION DEVELOPMENT

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Group number	Group 21	
Title	Karlskrona Explore	
Supervisor(s)	Usman Nasir and Andreas Bauer	
Student 1	Name	Aditya Aditya
	E-Mail	adai22@student.bth.se
	BTH ID	20020104-T134
Student 2	Name	Raahitya Botta
	E-Mail	rabo22@student.bth.se
	BTH ID	20020814-T150
Student 3	Name	Joseph Sudheer Vinakonda
	E-Mail	jovn22@student.bth.se
	BTH ID	20000928-T395
Student 4	Name	Teja Sai Vaibhav Boppana
	E-Mail	tebo22@student.bth.se
	BTH ID	20011019-T137
Student 5	Name	Thota Varshith Reddy
	E-Mail	vath22@student.bth.se
	BTH ID	20011104-T117

Application Name: KarlskronaExplore

1 App's Context Data

Context diagram including technical information of our application "KarlskronaExplore" is shown below:

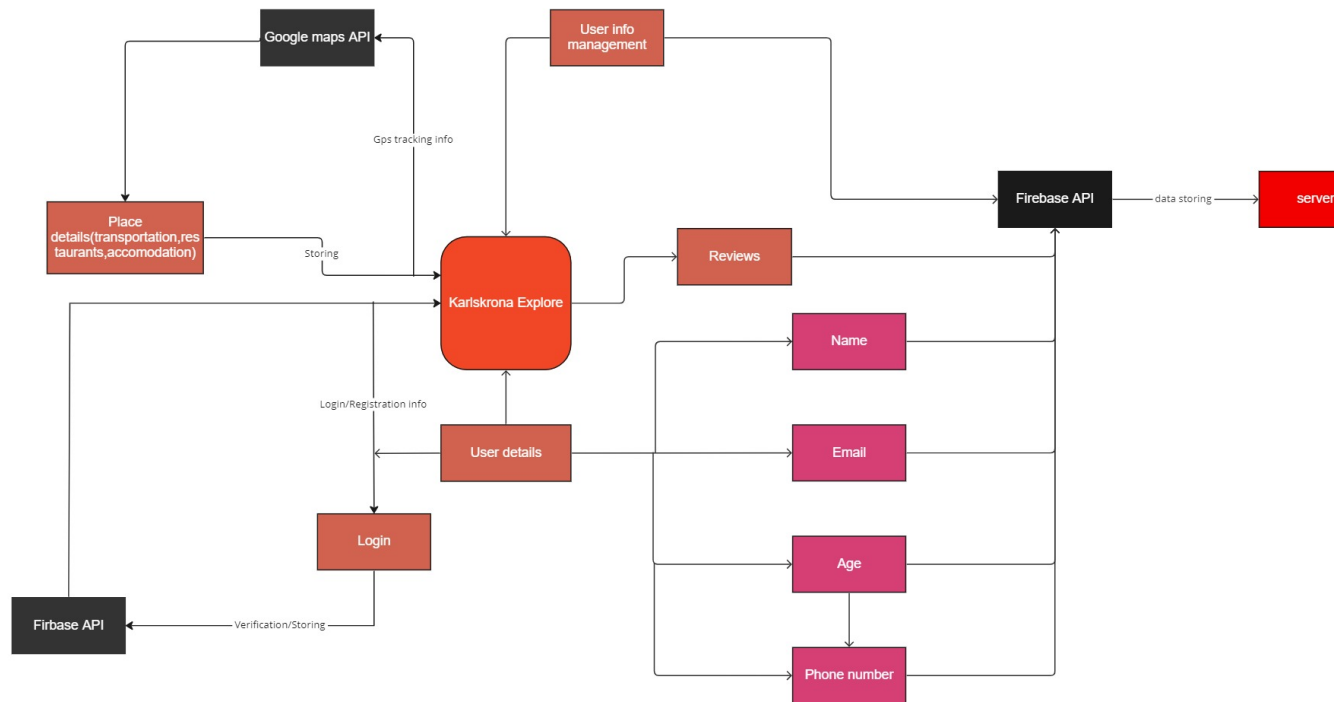


Figure 1: Context diagram

The flowchart below illustrates the structure of our application "KarlskronaExplore":

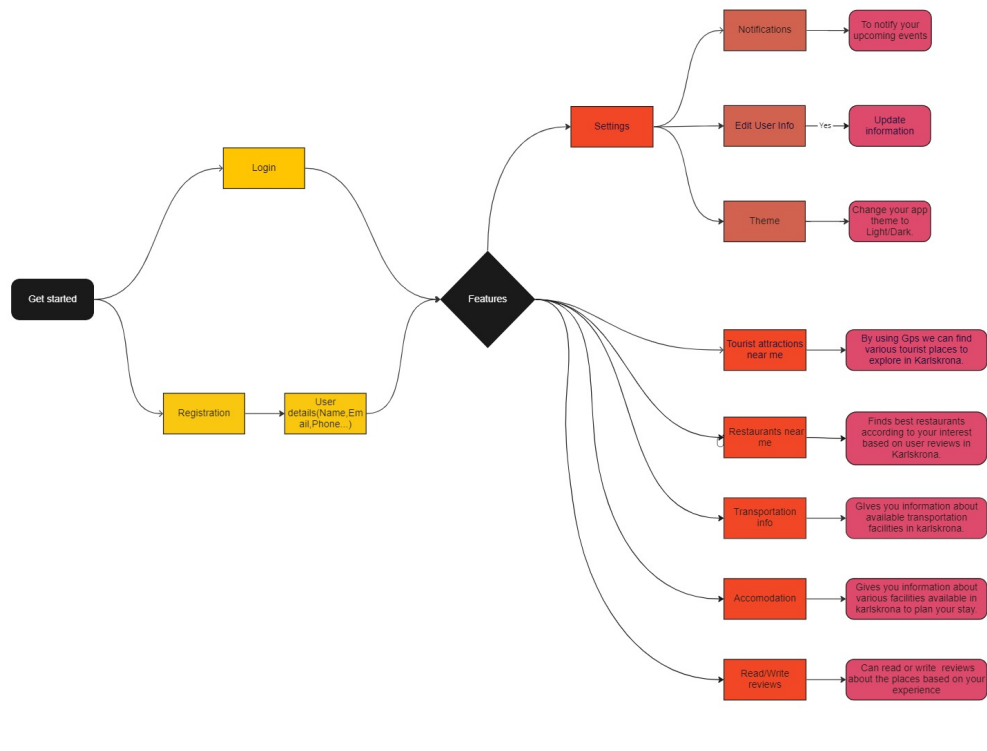


Figure 2: Structure of app

Our App KarlskronaExplore collects following data:

- Our app collects user data such as name, email, phone no. and other necessary details for registering into the application.
- Our app collects login details from the user in order to login into the application.
- Our app collects location data from the gps sensor of the user's cell phone.
- Our app also collects reviews given by users regarding their visits to various places in Karlskrona.

User Inputs:

The inputs given by the user are:

- Name of the user
- Email of the user

- Phone number of the user
- Date of birth of the user
- Age

Internal Sensors:

- The gps sensor present in the phone will be used by our application

External Websites:

- We have taken the data shown in our application as reference from other websites such as wikipedia.

Our application gathers information or data that the user has provided, such as personal info given during registration, visits to specific locations, reviews given, etc. on the basis of which it provides analysis of specific places in each category. Therefore, even after the application is closed, the data is retained. Furthermore, our application does not locally store any data on the phone and the data including personal info , visits to specific locations, reviews given, etc are stored on server.

Features	API/Library
Login	Firebase API
GPS tracking	Google maps API
Registration	Firebase API
Place finder	Google maps API
Places analysis	Google analytics API
Notification	Notification API

2 UI Design and Screen Flow

User Story 1:

John is a 20-year-old exchange student who came to study at BTH Karlskrona. He's an introvert and new to town. In Karlskrona, he hopes to find suitable lodging, a fine restaurant, and interesting places to visit. And, basically, he wants to learn about Karlskrona's culture because he will be there for two years. Our app "Karlskrona Explore" tells him everything he needs to know about the city. Suggests the best restaurants with good reviews, places to visit, and assists with student housing.

Use Case 1: Register as a new user.

John installs the app from the play store. And when he opens the app, he finds login/sign up as a new user. Then he clicks the sign-up option and fills in his details like name, email address, age, etc, and then he will set the password for his account. After that, a verification is done through email or mobile number.

Use Case 2: Checks for accommodation.

After he logs into the app he finds the option for accommodation. There he can see the

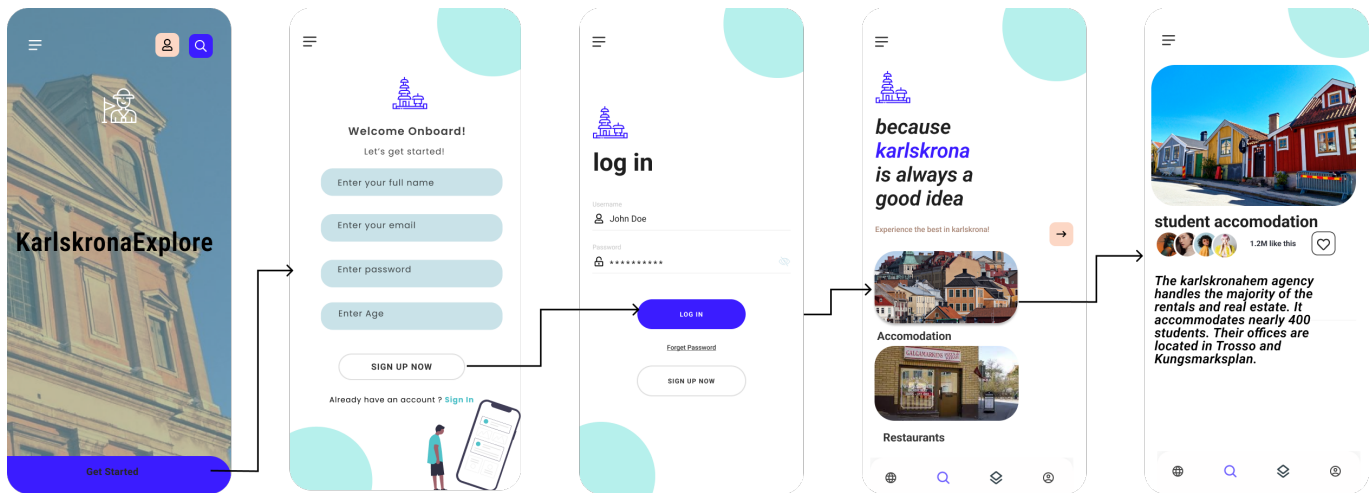


Figure 3:

information about the available accommodation including student housing and private accommodation . There he can find the links to the Karlskrona housing companies that provide housing for students with user reviews. And also provided with the requirements for student accommodation.

User Story 2: Arya is a 22-year-old from Copenhagen, Denmark. She wants to take a break from her studies and visit new places to free her mind. Then she decided to visit Karlskrona. She gets to know about our application and registered as a new user before visiting Karlskrona.

Use Case 1: Logins as an existing user.

As she is an existing user, she simply needs to log in by giving login credentials like username and password. Then she simply logs into our app.

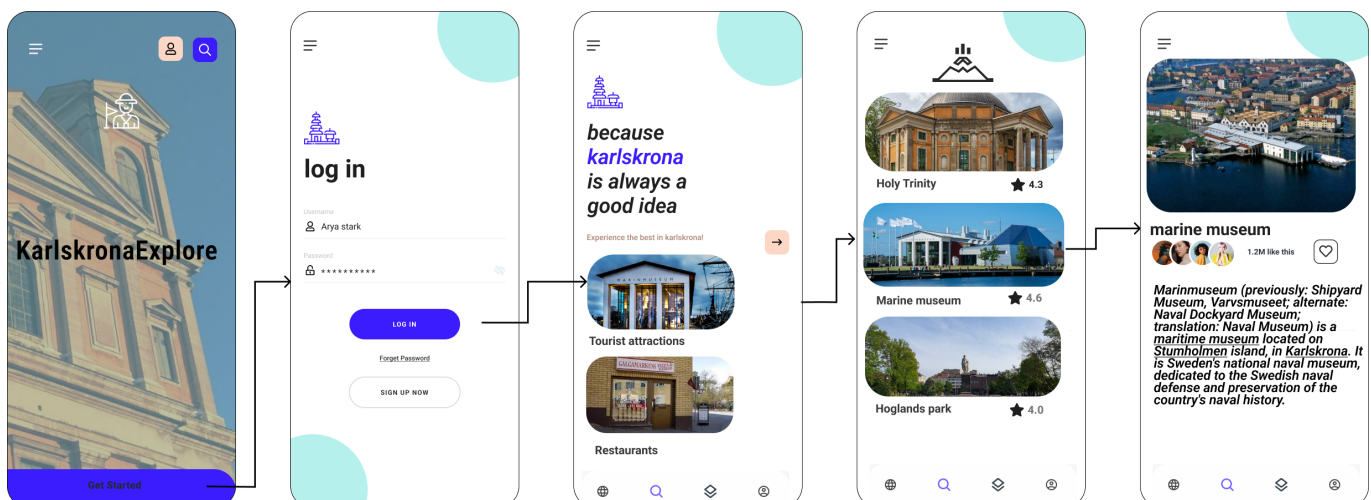


Figure 4:

Use Case 2: Tourist attractions in Karlskrona.

After she logs into the app, Arya clicks on Tourist attractions option and finds the places like marine museum, Blekinge museum, Hoogland's park, the church of the holy trinity, etc to explore. After clicking on any of those places she gets a little history about that place and gives the location. She not only finds places to explore but also finds restaurants as per her interest.

3 Design Evaluation

.The "Karlskrona Explore" app is designed to be user-friendly for everyone. Its user interface is basic and appealing. The application strives for consistency through the design of the arrangement of the buttons, such as navigation buttons, which allow a user to switch from one screen to another without confusion because they are always positioned in the same spot. Colors, visual shapes, and lighting are all constant throughout the app. Font styles and sizes are always consistent with the same framework.

2.A few activities/actions are carried out to provide a consistent user interface, are icon insertion. By eliminating the text from the user interface (UI) design and simplifying it with the use of icons, you may ease communication, reduce user confusion, and enhance UI design. Additionally, after logging into the app, the home page will provide recommendations for categories the user would wish to browse.

3.We used the testing method called Usability testing is the process of evaluating a user interface or product by recording the reaction of a representative user group (usually a small number of people) as they interact with a product and identify any problems they may have with the interface. The goal of usability testing is to gather feedback from users to improve the product and increase the usability of the product for the end user.

4. While designing a mobile app, it is important to consider the user interface and user experience. A good user interface should be simple to use and easy to navigate so that the user can easily find the information they are looking for and interact with the app efficiently. We used a very interactive user interface design so that the user never gets frustrated while using the application, the UI flows smoothly from one page to another page