## **GPS Trail**

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GPS Trail is an online web platform that helps users find the most appropriate trails in national parks and forest reserves. The platform provides a comprehensive evaluation of the different aspects imperative while going on a trail to an unknown trekking place. It acts as a user's guide for presenting the most optimal interface for any hiking adventure and provides a blueprint of the parks through maps and customer reviews.

## Scenario "Integration of components"

The user initiates by creating an account on GPS Trails, the user does so by going on the sign up page and adding an email address, password, and full name into the appropriate inputs. After clicking the submit button a message is displayed that shows whether the registration was successful or not. The user's information is sent through the Nest API, which is responsible for hashing the password, and storing the information using MySQL database. Once the user gets their account created successfully, the user can log in with the credentials and access the additional functionalities on the website that require authentication.

After the login/register process, the home component of GPS trails displays a search bar where the user enters the trail or park name to be searched. A drop-down list is displayed beneath the search bar which shows the trails matching the characters entered in the input. After clicking the required trail, the detail component is routed and displayed with the images and details of the park. The details include the park coverage area, ratings, famous trials, ratings, and images of the trails visited by the people. A map will be displayed with the marker of the location of the park for navigation. The map can be converted to satellite view to get a better view of the terrain.

The "Explore" section displays a map on the entire screen where users can add markers to locations manually and get directions to the location from the starting point. The "Add Trails" page requires that the user is authenticated, if the user isn't it redirects the user to the login page, if the user is authenticated the "Add Trails" page let's the user add new trails to the database.

## **Diagram**

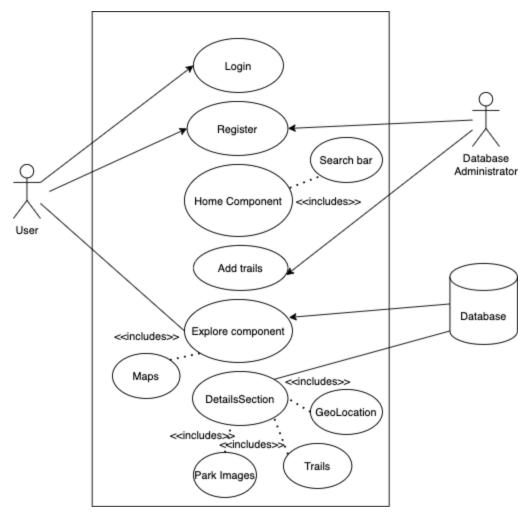


Fig 1.1

The user will have the option to register their information and create an account. After doing so, the database administrator can validate their information through an automated process for account creation. If the user wishes to add trails, the database administrator will be provided with all the user-entered information and verify that it is a valid trail before adding it to our website. The database will handle user requests from the "Explore" component and the "DetailsSection" by populating all relevant trail information from the tables.