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# Section 1: CONCISE TABLE

|  |  |  |
| --- | --- | --- |
| **Feature** | **Status** | **Your Comments** |
| **Enter details of hikes** | Fully completed **✔** | I successfully completed the data import task. These fields included: Name of hike, Location, Date of the hike, Parking available, Length of the hike, Level of difficulty, Description. Furthermore, in addition to the fields you initially mentioned, you've introduced a new field: Vehicle |
| **Store the database** | Fully completed✔ | The user-provided information should be initially saved on the device within an SQLite database. |
| **view the database** | Fully completed✔ | Users have the capability to view a complete list of all the hike details that have been input into the application. |
| **delete hike** | Fully completed✔ | Users have the option to either delete individual hikes or clear all the details from the database. |
| **Create hike** | Fully completed✔ | Users can create a new hike and save it to the SQLite database. |
| **Update hike** | Fully completed✔ | Users can Update a hike and save it to the SQLite database. |
| **Add observations to a hike** | Fully completed✔ | Hikers have the option to choose a hiking excursion and subsequently input the following information: Observation, Timestamp of the observation, Additional comments.  Users should have the ability to record multiple observations for a single hiking trip. The app save all the data locally in an SQLite database. Furthermore, users should be able to choose a specific hike, view a complete list of observations, and perform actions like creating viewing, editing, or deleting particular observations. |
| **Search** | Fully completed✔ | Users have the functionality to search for a specific hike in the database using the name of the hike as a search parameter. This feature enables efficient and convenient information retrieval, making it easy for users to find and access detailed information about their desired hiking trip quickly and efficiently. |
| **Create a cross-platform prototype of the app using Xamarin/MAUI** | Not implemented ✔ | I regret to inform you that I am unable to complete this quest. |
| **Implement persistence using Xamarin/MAUI** | Not implemented ✔ | I regret to inform you that I am unable to complete this quest. |
| **Add additional features to either or both the Android or Xamarin version of the app** | Not implemented ✔ | I regret to inform you that I am unable to complete this quest. |

# Section 2: SCREEN SHOTS/DESIGN

Screens screenshot of a screenshot of a screenshot

Description automatically generated

Figure 1: home and add page

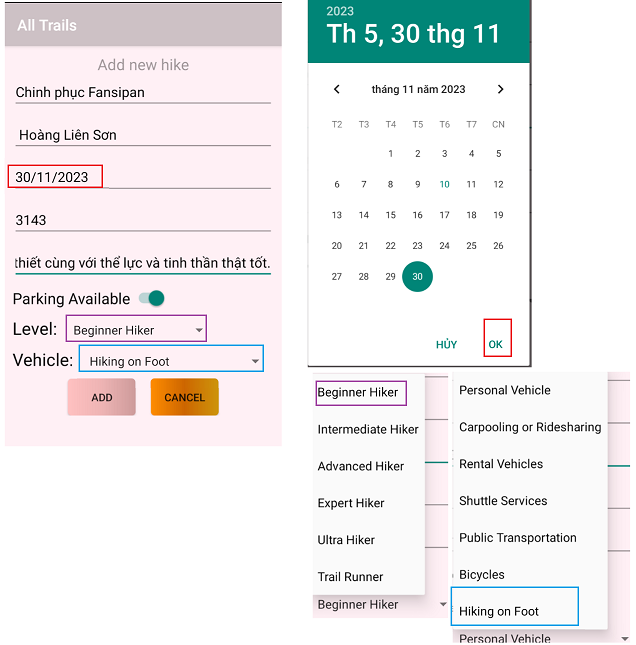


Figure 2: add hike

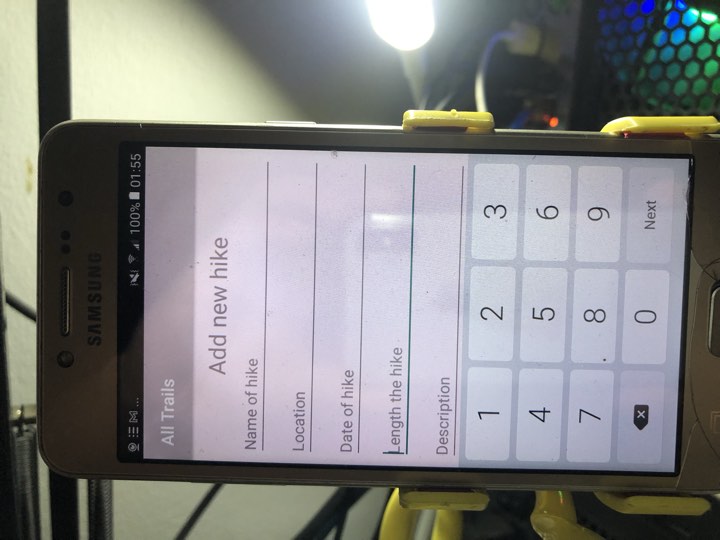


Figure 3: add length the hike

Screens screenshot of a phone

Description automatically generated

Figure 4: click button add

Screens screenshot of a phone

Description automatically generated

Figure 5: add more

A screenshot of a phone

Description automatically generated

Figure 6: hike detail

Screens screenshot of a phone

Description automatically generated

Figure 7: click button back

Screens screenshot of a phone

Description automatically generated

Figure 8: delete hike

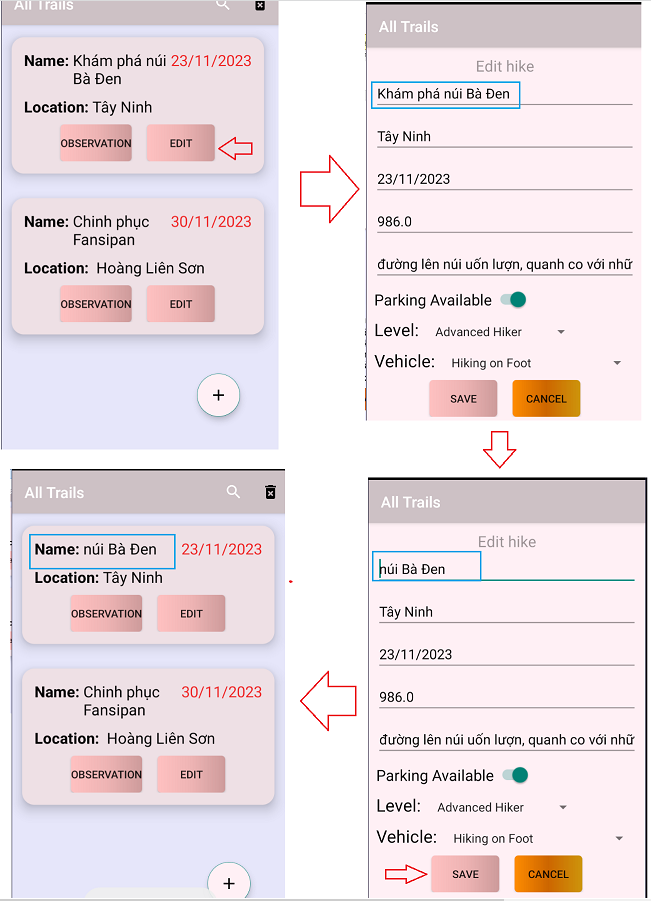


Figure 9: edit hike

Screens screenshot of a computer

Description automatically generated

Figure 10: add observation

A screenshot of a phone

Description automatically generated

Figure 11: observation detail

A screenshot of a phone

Description automatically generated

Figure 12: button back in observation

A screenshot of a phone

Description automatically generated

Figure 13: delete observation

Screenshot of a screenshot of a screenshot of a screenshot of a screenshot of a screenshot of a screenshot of a screenshot of a screenshot of a screenshot of

Description automatically generated

Figure 14: edit observation

Screens screenshot of a phone

Description automatically generated

Figure 15: back to home page

Screens screenshot of a phone

Description automatically generated

Figure 16: search hike

Screens screenshot of a chat

Description automatically generated

Figure 17: delete all

# Section 3: REFLECTION

## How the app was developed

The hike management application development process involves many stages, from ideation and planning to implementation and refinement. I defined the purpose and target audience of the app, identified the core features and functions. The design and user experience are meticulously crafted to ensure seamless and visually appealing interactions. The application is built in Java language, SQLite database is integrated for effective data management. Strict testing and quality assurance procedures have been implemented to identify and correct errors. This application also includes data management features, such as storing, adding, editing, and deleting information in the SQLite database. The application's search function has also been enhanced.

## Lessons learnt:

Completion of the hike management application development project was an important milestone that provided valuable lessons for future endeavours. Key lessons include the importance of user feedback, prioritizing security, ensuring comprehensive documentation, adopting agile methods, continuous testing, communicating effectively, investing in User testing, budgeting for application development. Reflecting on these lessons and incorporating them into future projects will contribute to my growth and success.

## What I think went well in application development

I think the success of an application development project is often due to clear requirements, effective project management, application of best development practices, responsive design, effective communication, Thorough testing, security considerations, agile development, and user training and support. These factors contribute to creating a solid foundation for me to develop the project.

## Improvements to the app

I will need to improve some features for my application. Firstly, the app can be integrated with sensors and measuring devices to update location, speed, and distance data automatically. Secondly, email or social networking sites are simple ways for users to tell friends and family about their travel plans. In the community, this strengthens bonds and establishes hubs for communication. Finally, data security becomes a significant concern because the app contains a large amount of sensitive personal information. Leakage of personal information may occur from an intrusion or lost password.

# Section 4: EVALUATION

## Human computer interaction

I review the hiking management app:

First, User Experience (UX): Colors are given to the interface to highlight information and make it easy to see. Contrast between text and background can improve user readability and comprehension. Use color to highlight important elements such as function buttons, links, or important notifications. This color will stand out and be easy to see. provides alternative input methods, corrects information, and deletes unnecessary data. Search features and a clear navigation system help users easily access the information and features they need. The data storage feature also helps users compare different trips so they can find patterns, developments, and adjustments to improve their efficiency.

Second, social aspect: the impact of Hike app management on social relationships reflects broader trends in the digital era. By leveraging the positive aspects of Hike while being mindful of its potential limitations, individuals can navigate the digital landscape in a way that enhances rather than detracts from the fabric of connection between people together.

Finally, human factors: This involves understanding human physical and psychological capabilities and limitations and incorporating this knowledge into the design of the Hike management application.

## Security

Application security is a comprehensive and ongoing effort that requires a combination of technical measures, proactive development practices, and user education. By taking a comprehensive approach and staying vigilant, organizations can minimize the risk of security breaches and provide users with a safe and reliable application experience. My application security is a work in progress.

## Ability of the app to run on a range of screen sizes and how this could be improved

The ability of an app to run smoothly on a variety of screen sizes is a multifaceted challenge that requires constant innovation and adaptation. By using responsive design principles, leveraging cutting-edge technologies, and prioritizing user feedback, I've been able to deliver a delightful app experience, regardless of device size.

## Changes need to be made

Automation: The application can integrate with measuring devices and sensors, automatically updating information about distance, speed, and location.

Share and connect: Users can easily share trip information with friends and family via social networking platforms or email. This fosters relationships and creates sharing points within the community.

Data security: Since the app contains a lot of personal information and important data, data security becomes an important issue. Loss of password or intrusion can lead to personal information leakage.

# Section 5: CODE

|  |
| --- |
| Code listing of any code files you have written. You do not need to include generated code. Please clearly label the code, so it indicates the source file and programming language. |

Danh sách mã của bất kỳ tệp mã nào bạn đã viết. Bạn không cần phải bao gồm mã đã tạo. Vui lòng dán nhãn rõ ràng mã, để nó cho biết tệp nguồn và ngôn ngữ lập trình.