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HIKING BUDDY FINDER WEB-BASED APPLICATION

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ABSTRACT - The Hiking Buddy Finder is a web-based application that connects hiking lovers and facilitates group formation. It uses modern web technologies and a user-friendly interface to provide a seamless experience for users. Users can search for hiking buddies based on specific criteria such as location at Kedah, the capacity of the group, preferred hike duration, and date, and the app's intelligent matching algorithm suggests compatible groups. There are three objectives of this research to develop a Hiking Buddy Finder Web-Based Application. The system was created using the Agile model's phases of analysis, designing, development, testing, and documentation. A Hiking Buddy Finder also offers a messaging platform for allowing users to communicate and plan their hiking trips together and synchronization of schedules. User acceptance tests will be conducted to evaluate the effectiveness of the system. The response time of the system was further evaluated using network performance testing, and the success rate was calculated based on a questionnaire of feedback from respondents. The testing involved 30 respondents, and the results show that the Hiking Buddy Finder Web-Based Application met all of its objectives.

Keywords: Intelligent matching algorithm, hiking buddies, modern web technologies, agile model, group formation.

1. INTRODUCTION

The Hiking Buddy Finder goes beyond simply connecting individuals. Users can search for hiking companions based on specific criteria such as location, group size capacity, preferred hike duration, and dates. Leveraging the application's intelligent matching algorithm, users are then provided with suggestions for potential hiking buddies or groups that share similar interests and experience levels.

2. METHODOLOGY

The Agile Model was used to develop a hiking buddy finder web-based application. The process began with a requirements analysis to identify the needs of hikers to hike. The next phase is the design, where a sitemap and ERD are created to provide a clear view of the project structure. The development phase involves the programming of the web application using a specific programming language and data is stored using specific database technology. User Acceptance Testing was done to get feedback from 30 respondents. Lastly, the final phase is the documentation of all information gathered during the development process.

3. RESULTS AND DISCUSSION

The responses of 30 respondents were evaluated through a User Acceptance Test (UAT) where they were prompted to rate the system on a scale of 1-5. The UAT results determined the user interface satisfaction, usefulness and ease of use, and usability of the system for finding hiking buddies. However, it has limitations such as geographic coverage, user verification, and communication and reliability. These limitations may cause dissatisfaction among users when using Hiking Buddy Finder Web-Based Application. The result can be concluded that the application's intelligent matching algorithm has proven effective in suggesting potential hiking buddies or groups based on location and date. User feedback indicates a high level of satisfaction with the matches, highlighting the algorithm's accuracy in connecting individuals with compatible hiking interests, experience levels, and desired locations.

4. NOVELTY OF RESEARCH / PRODUCT

Hiking is an extreme activity that is attractive for wellness and is very popular in Malaysia due to geographical factors that include a lot of mountains (Masohor et al., 2020). Hiking can generally be done alone, but it is not recommended for new hikers due to the difficulty level and high teamwork requirements (Oktaviana et al., 2019). Many hikers are capable of going on alone hikes. Even more, hikers believe they can complete alone hikes when, in reality, they lack

the necessary expertise. Hikers need buddies to look out for each other in case of accidents and injuries which are trips, falling branches, and animal assaults which are snakes and bees (Chew, 2020). a hiking buddy can guide them with directions, and hiking with buddies might help hikers remain on track and avoid getting lost (Yukon, 2018).

5. CONCLUSION

In conclusion, the hiking buddy finder web-based application can clearly help hikers or users to find hiking buddies efficiently. Furthermore, the majority of participants had a positive experience with the system after assessing it through User Acceptance Testing (UAT). Thus, all of the project's objectives have been met.

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