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Learning Traditional Medicinal Plants with Medicinal Properties Website

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Abstract

Malaysia contains a tropical rainforest environment with a diverse range of medicinal Plants that ethnic groups have historically utilised. In Malaysia, several types of medicinal plants are utilised in traditional medicines by a variety of Indigenous peoples. Information Technology can be seen as having a pivotal role in preserving the traditional knowledge of the Malay Medicinal Plant in the forms of a website as such for learning and educational purposes. This project aims to develop a website that offers information related to traditional medicinal plants with medicinal properties for learning and educational purposes. The Waterfall model was adapted to the project method. This project used Visual Studio Code, PHP, and MySQL. Future development may include push notifications, a dashboard, and a profile page. The traditional Malay medicinal plant with medicinal properties website will benefit common users to learn about Malay medicinal plants.

Keywords Traditional Malay Medicinal Plant, Website Development

Introduction

Malaysia is characterised by a diversity of plant resources, whether medicinal plants or any other usage of plants to form the essence of ethnobotany, which are unique to Malaysia (Adnan & Othman, 2012). For example, *temu kunci (Boesenbergia rotunda), mengkudu (Morinda citrifolia),* and *Misai kucing (Orthosiphon aristatus)* are among the most used Traditional Malay medicinal plants with significant medicinal properties (Adewale Ahmed, 2022). *Temu kunci* is recognized for its antibacterial, antifungal, and anti-inflammatory effects (Adewale Ahmed, 2022). *Mengkudu* is valued for its broad healing properties, including antibacterial and anti-tumor activities (Adewale Ahmed, 2022). *Misai kucing* is traditionally used for treating various infectious and chronic diseases, attributed to its rich content of flavonoids and other bioactive compounds (Adewale Ahmed, 2022).

There are also other examples of commonly used Traditional Malay medicinal plants with notable medicinal properties, including *Cocos nucifera L.* (coconut), *Carica papaya L.* (papaya), *Areca catechu L.* (betel nut), and *Citrus aurantiifolia* (lime) (Ramli, Milow, & Malek, 2021). These plants are frequently utilized for treating various ailments, particularly gastrointestinal disorders such as stomach aches, diarrhea, and indigestion (Ramli, Milow, & Malek, 2021).

Traditional Malay medicinal plants play a crucial role in local healthcare practices and the preservation of traditional knowledge. These plants are integral to cultural heritage, providing both health benefits and economic opportunities for communities. There are numerous research highlights the importance of traditional Malay Medicinal Plants, in local healthcare practices and their role in the preservation of traditional knowledge. Information Technology can be seen as having a pivotal role in preserving the traditional knowledge of the Malay Medicinal Plant in the forms of a website as such for learning and educational purposes. This project aims to develop a website that offers information related to traditional medicinal plants with medicinal properties for learning and educational purposes.

Method

The waterfall model is a sequential approach to the software development lifecycle (SDLC) that was effectively utilized in the website development project (Madiah, Xuen, Wen, Heng, Tian, & Xuan, 2024) and was adapted into the context of this project. This project used Visual Studio Code, PHP, and MySQL for the development of the website.

Results and Discussions

A. Prototype for Traditional Malay Medicinal Plants

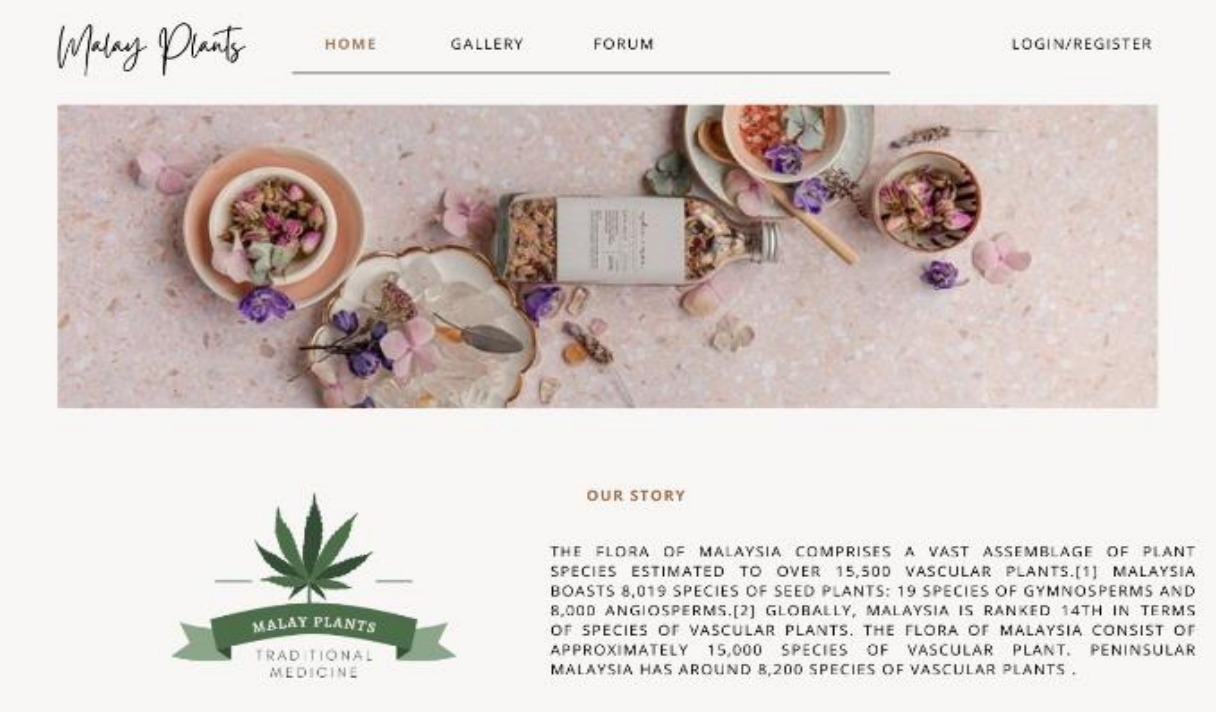

Fig. 1 Prototype for Traditional Malay Medicinal Plants

Fig. 1 depicts the Prototype for Traditional Malay Medicinal Plants.

B. Flowchart

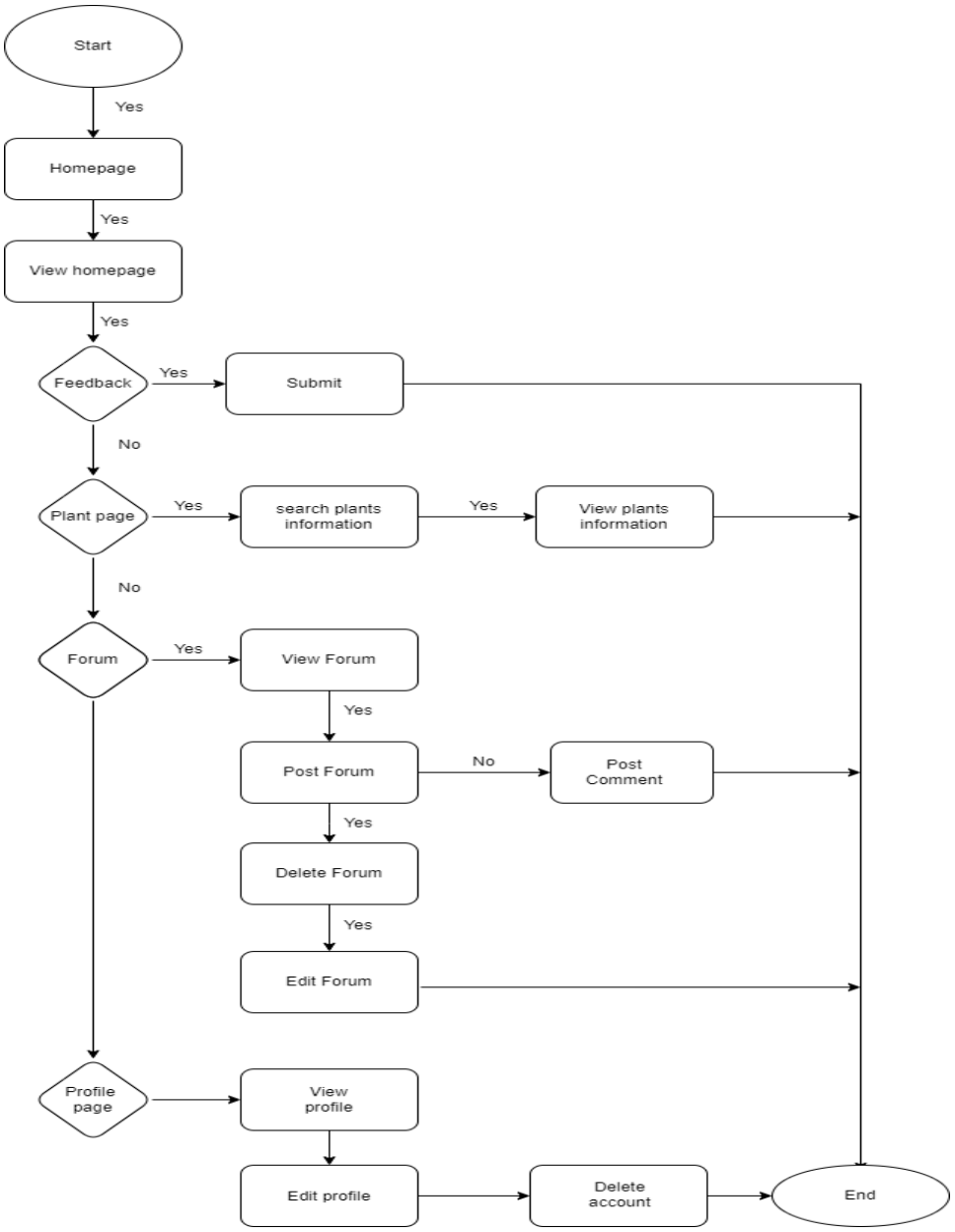

Fig. 1 Flowchart

Fig. 2 shows the flowchart for the website.

C. Use Case Diagram

Fig. 3 Use Case Diagram

Fig. 3 depicts the use case diagram.

D. Entity Relationship Diagram (ERD)

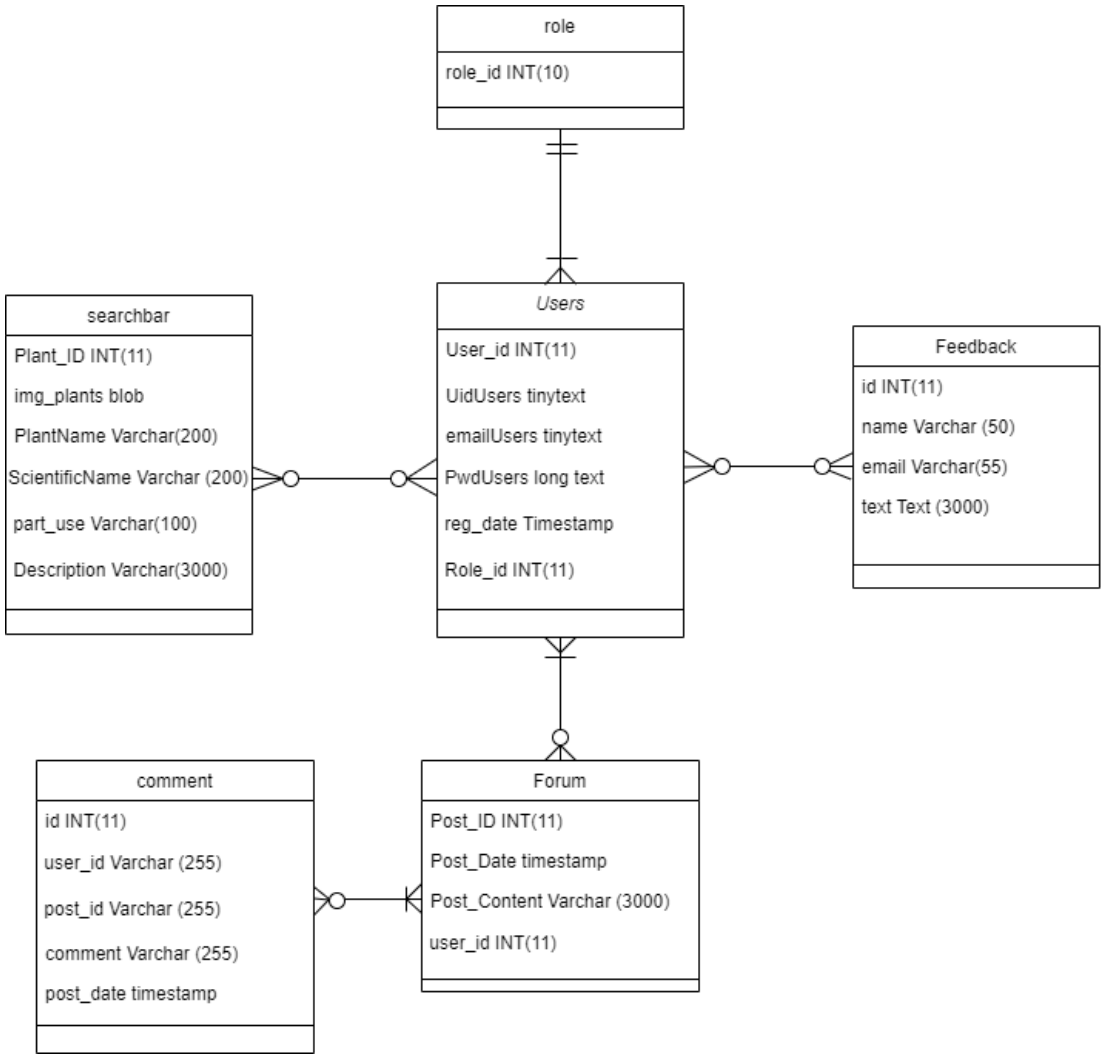

Fig. 4 Entity Relationship Diagram (ERD)

Fig. 4 depicts the Entity Relationship Diagram (ERD)

Conclusion

Traditional Malay medicinal plants play a crucial role in local healthcare practices and the preservation of traditional knowledge. These plants are integral to cultural heritage, providing both health benefits and economic opportunities for communities. Information Technology can be seen as having a pivotal role in preserving the traditional knowledge of the Malay Medicinal Plant in the forms of a website as such for learning and educational purposes. This project aims to develop a website that offers information related to traditional medicinal plants with medicinal properties for learning and educational purposes. The Waterfall model was adapted to the project method. This project used Visual Studio Code, PHP, and MySQL. Future development may include push notifications, a dashboard, and a profile page. The traditional Malay medicinal plant with medicinal properties website will benefit common users to learn about Malay medicinal plants.

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