

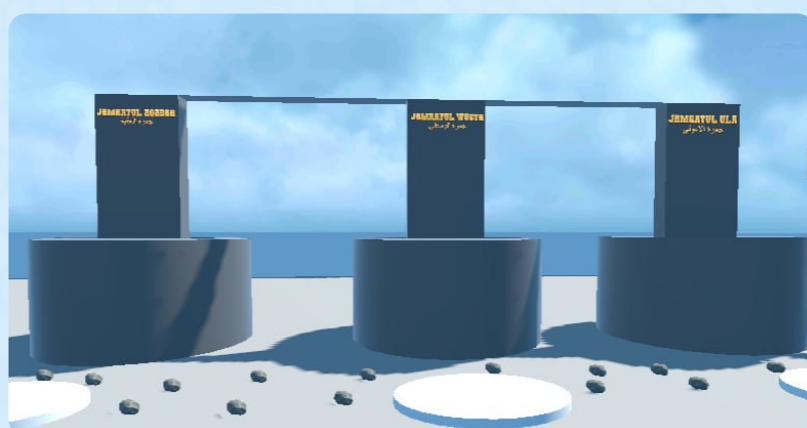
Innovation Background

Hajj Simulatour is a Virtual Reality (VR) simulator project that focuses on the subtopic of "Hajj and Umrah," which is covered in the syllabus for **SPM Pendidikan Islam**. In light of this, this VR simulator was created for SPM Pendidikan Islam candidates as a cutting-edge method for students to learn about the Muslim pilgrimage. The idea of simulating the Hajj experience with virtual reality technology in the classroom will offer a distinctive and interesting way to learn about and comprehend the Hajj pilgrimage. Three key modules—the Hajj Simulation module, the Mini Quiz module, and the Learning Room module—were developed for this project using 3D engine and framework with programming language C# being employed.

Novelty

- Simulation module that engages users in symbolic rituals that are integral to the Hajj, such as Tawaf, Sa'i and the throwing of pebbles at the Jamarat.
- Quiz module with an educational mini quiz game that is designed to help users improve their knowledge and understanding of Hajj topic.
- Learning Room module where users can interact and engage in a variety of educational materials with multiple interactive flipbooks and learning videos.

Product Picture



Commercialization Potential

- **Education Sector :**
Serves as an educational tool in schools and universities to give students a unique experience of the Hajj pilgrimage.
- **Tourism Industry**
Travelling agencies that offer Hajj & Umrah tour packages can utilize this project as a tool for marketing and promoting the Hajj learning courses.

Contribution to Society

- Providing an immersive and interactive experience of the annual Islamic pilgrimage to Mecca for students.
- Allowing people of different physical abilities, financial constraints, and time limitations to experience and learn about the pilgrimage to Mecca.

Pictures below show the SPM candidates from SMK Bandar Rinching utilizing the VR Hajj Simulatour :



A survey has been conducted on 25 of our users regarding the effectiveness of virtual learning methods using the VR Hajj Simulatour application. The survey results are as follows :

96%

96% of users agree that Hajj Simulatour has interactive and easy-to-understand interfaces.

92%

92% of users agree that Hajj Simulatour has functions and features that can meet the needs of SPM Pendidikan Islam candidates.

88%

88% of users agree that Hajj Simulatour can provide a realistic Hajj simulation experience.

2%

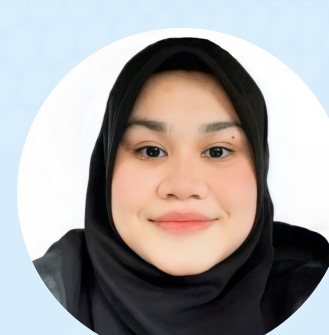
2% of users agreed that they experienced motion-sickness and discomfort when using a VR headset during the simulation.



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