### **CHAPTER 1 INTRODUCTION**

### 1.1 Background

The rapid development of digital technology has opened up new opportunities in various aspects of life, including religious education. The implementation of technology in the realm of Islamic religious education requires a deep understanding so that the learning process that utilizes technology can take place optimally and is relevant to the demands of the digital era. Therefore, technological developments need to be optimized to create innovations in Islamic religious education learning methods and need to be optimized for their use to support and facilitate the learning process of Islamic religious education<sup>1</sup>.

Prayer, as a means of communication between a Muslim and Allah SWT, has an important role in improving the spiritual and psychological quality of individuals<sup>2</sup>. In *maqashid sharia* (the intentions or objectives to get the perfect solution and the right path based on the main source of Islamic teachings, the Quran and Hadith), prayer has an important role, especially in the principle of *hifzu al-din* (safeguarding religion). Prayer is a form of worship that is a means to get closer to Allah SWT and ask for His help and guidance<sup>3</sup>. This is affirmed in *the Qur'an* in Surah *Al-Baqarah* verse 186 which reads:

It means: "And if My servants ask you (Muhammad) about Me, then I am near. I grant the prayer of the one who prays when he prays to Me. Let them fulfill My (command) and believe in Me, so that they may obtain the truth."

However, memorizing and remembering various prayers in various situations and times is often a challenge, especially for the younger generation who

<sup>&</sup>lt;sup>1</sup> Wiwin Rif'atul Fauziyati, "THE IMPACT OF THE USE OF ARTIFICIAL INTELLIGENCE (AI) IN ISLAMIC RELIGIOUS EDUCATION LEARNING," *Journal of Education and Teaching Review* 6, no. 2 (2023): 2180–87, https://doi.org/https://doi.org/10.31004/jrpp.v6i4.21623.

<sup>&</sup>lt;sup>2</sup> Shanty Komalasari et al., "DOA DALAM PERSPEKTIF PSIKOLOGI," 2022, 423–36.

<sup>&</sup>lt;sup>3</sup> Yati Oktavia et al., "Dasyatnya Kekuatan Doa Dalam Kehidupan Manusia," *PROCEEDING CONFERENCE ON DA'WAH AND COMMUNICATION STUDIES* 1, no. 1 (2022): 86–90, http://proceedings.dokicti.org/index.php/CDCS/index.

live in a digital era that is full of information and full of distractions. Prayers in the form of books or leaflets tend to be less attractive to the younger generation who are used to digital technology. In addition, the existence of a prayer collection book in physical form has a large or thick book size, it will be troublesome if it is carried around because it does not save space, it is necessary to open it sheet by sheet<sup>4</sup>.

This limitation is increasingly felt for students who have a busy daily schedule with lecture schedules, organizational activities, or even part-time jobs. Time constraints and high activity demands are often obstacles for students in allocating their time effectively to study, work, socialize, and meet personal needs<sup>5</sup>. These obstacles are also often an obstacle in the process of consistency in memorizing prayers. Students need solutions that are practical, accessible, and can be integrated into their busy routines. Therefore, innovation is needed in the delivery of prayer learning materials that are more relevant and in accordance with modern lifestyles. Previous research shows that mobile applications have the potential to improve the understanding and practice of memorizing prayers<sup>6</sup>.

Push notifications are short messages that can be sent directly to the user's device, even when the app is inactive<sup>7</sup>. Push notifications are classified into two approaches, namely local notifications and remote notifications. In local notifications, the app schedules the notification through the device's operating system or through the app's internal timer if the app is running in the background. Local notifications do not require an internet connection to operate. Unlike local notifications, remote notifications are processed by a server and require an internet

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<sup>&</sup>lt;sup>4</sup> Ani Nur Aeni et al., "Aplikasi BETA (Belajar Dari Peta): Media Edukasi Doa-Doa Harian Siswa SD Kelas Rendah," *Jurnal Inovasi Teknologi Pendidikan* 9, no. 1 (May 31, 2022): 101–13, https://doi.org/10.21831/jitp.v9i1.49203.

<sup>&</sup>lt;sup>5</sup> Yuan Xing Grace Hillary Zega and Grace Ester Kurniawati, "PENTINGNYA MANAJEMEN WAKTU BAGI MAHASISWA DALAM MENINGKATKAN PRESTASI BELAJAR DI SEKOLAH TINGGI TEOLOGI DUTA PANISAL JEMBER," *JURNAL PENDIDIKAN AGAMA KRISTEN* 4, no. 1 (2022): 59–70, http://journal.sttdp.ac.id/index.php/meta.

<sup>&</sup>lt;sup>6</sup> Aeni et al., "Aplikasi BETA (Belajar Dari Peta): Media Edukasi Doa-Doa Harian Siswa SD Kelas Rendah."

<sup>&</sup>lt;sup>7</sup> Fauziatun Husna et al., "Aplikasi Kartu Menuju Sehat Elektronik Berbasis Mobile Menggunakan Realtime Push Notification Mobile-Based Electronic Health Card Application Using Realtime Push Notification," *Jurnal Sistem Informasi* 13, no. 3 (2024): 1253–66, http://sistemasi.ftik.unisi.ac.id.

connection. In this mechanism, the user's application must be registered on the server with a unique key. The server will send a notification message to the user application via the user/server protocol that has been defined, then the user application will display the notification message<sup>8</sup>.

Push notifications have been implemented in several studies with various different contexts, including prayer contexts, reminders of daily activities, borrowing systems, new student admission systems, and finance. However, previous studies generally require the app to be online for push notifications to work. This is an obstacle because it depends on a stable internet connection, considering that notifications are sent through the server<sup>9</sup>.

Based on the research above, considering that many smartphone users often struggle or even forget about their daily tasks and activities <sup>10</sup>. Based on the results of observations made to students of the State University of Surabaya (UNESA), time allocation is an obstacle to learning effectively, especially in terms of memorizing prayers. These obstacles arise from the tight lecture schedule, involvement in student organizations, and part-time jobs that must be undertaken. This research will develop a mobile-based application equipped with a push notification system, to help UNESA students be consistent in memorizing daily prayers even in busy situations. The app will allow users to set specific reminders at the desired time, without having to connect to the internet. By leveraging local notifications, users can receive reminders directly on their devices, even when the app is inactive.

<sup>&</sup>lt;sup>8</sup> Nur Rizky Aulia and Annisa Indrayanti, "PENGUJIAN APLIKASI MAHASISWA STMIK JAKARTA STI&K MENGGUNAKAN METODE BLACKBOX TESTING," *Seminar Nasional Teknologi Informasi Dan Komunikasi STI&K (SeNTIK)* 5, no. 1 (2021), https://mahasiswa.jakstik.ac.id/,.

<sup>&</sup>lt;sup>9</sup> Ahmad Rio Adriansyah Faisal Ayash Fikrian, "Pengembangan Aplikasi Doa Harian Menggunakan Metode Hybrid Untuk Web Dan Mobile," *Jurnal Informatika Terpadu* 93, no. 103 (2022): 93–103, https://journal.nurulfikri.ac.id/index.php/JIT.

Muhammad Ridhan, Maulana Nanda, and Ines Heidiani Ikasari, "PENERAPAN APLIKASI PENGINGAT JADWAL KEGIATAN PENGGABUNGAN WAKTU DAN TANGGAL BERBASIS ANDROID," Jurnal Ilmu Komputer Dan Science 2, no. 7 (2023): 1940–49, https://journal.mediapublikasi.id/index.php/oktal.

### 1.2 Problem Formulation

The formulation of the problem in this study focuses on the challenges faced by students of the State University of Surabaya in learning and maintaining consistency in memorizing prayers in the midst of daily busyness. Although the development of digital technology has provided opportunities to improve religious education, many students have difficulty learning and memorizing prayers regularly.

# 1.3 Research Objectives

From the formulation of the problem that has been written above, the objectives of the research carried out are as follows:

Developing a mobile application to learn and memorize daily prayers with
a push notification reminder system that can be adjusted to schedule
memorization according to the time without the need for internet access.

### 1.4 Research Benefits

The author really hopes that this application can provide a variety of sustainable benefits, including:

- Assist users in maintaining consistency in memorizing prayers.
- Strengthening the faith and piety of Muslims in the principle of *hifzu al-din* (safeguarding religion) in *maqashid sharia*.

#### 1.5 Problem Limitations

In order for the formulated research to be more focused, the research has the following limitations:

- The object of research in this study is smartphone users based on the Android Operating System.
- The application developed displays daily prayers in Arabic writing, and Indonesian translations.

- This application is tested to material experts and students of the State University of Surabaya
- Prayer scheduling does not support daily auto-repetition.
- The research object used an android-based smartphone with a screen size ranging from 6 inches to 6.7 inches.

# 1.6 Systematics of Discussion

This research will use the following writing systematics:

### CHAPTER I. INTRODUCTION

- 1.1 Background
- 1.2 Problem Formulation
- 1.3 Problem Limitations
- 1.4 Research Objectives
- 1.5 Research Benefits

### CHAPTER II. THEORETICAL FOUNDATIONS

- 2.1 Previous research
- 2.2 Foundation/Conceptual Framework

### CHAPTER III. SYSTEM ANALYSIS AND DESIGN

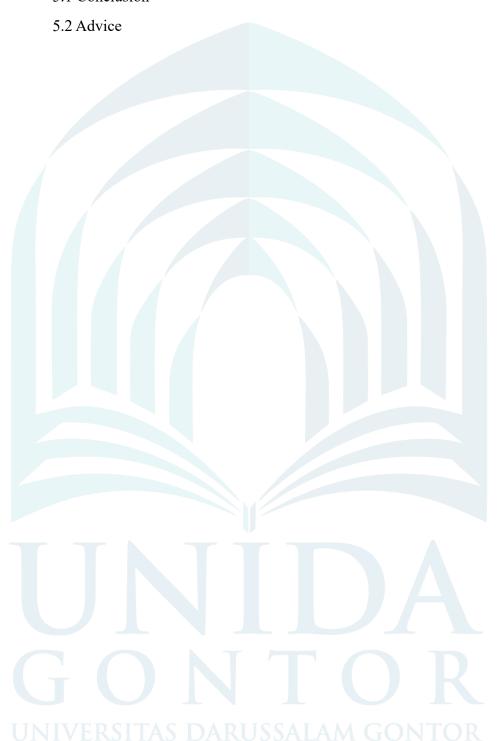
- 3.1 Overview
- 3.2 Analysis
- 3.2.1 System Weakness Analysis
- 3.2.2 System Requirements Analysis
- 3.2.3 System Feasibility Analysis
- 3.3 System Design
- 3.3.1 Process Planning
- 3.3.2 Database Design
- 3.3.3 Interface Design

## CHAPTER IV. IMPLEMENTATION AND DISCUSSION

- 4.1 Implementation
- 4.1.1 System and Program Trials
- 4.2 Discussion

# CHAPTER V. CLOSING

5.1 Conclusion



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