

APLIKASI PENJADWALAN KHUTBAH JUMAT BERBASIS ANDROID DENGAN *BOT WHATSAPP* PADA MASJID AR-RAHMAN II SEPAHAT

Nama Mahasiswa : Muhammad Zulkifli
Nim : 6103230076
Dosen Pembimbing : Eko Prayitno, M.Kom

ABSTRAK

Pengelolaan jadwal khutbah Jumat di Masjid Ar-Rahman II Sepahat sebelumnya dilakukan melalui pencatatan dan penyampaian langsung sehingga perubahan jadwal, pembagian tugas, materi khutbah, dan informasi kepada jamaah belum dikelola dalam satu aplikasi. Penelitian ini bertujuan menghasilkan MyKhutbah, yaitu aplikasi penjadwalan khutbah Jumat berbasis Android yang dilengkapi pengingat *WhatsApp*. Pengembangan aplikasi menggunakan metode *Waterfall* yang meliputi analisis kebutuhan, perancangan, implementasi, pengujian, dan pemeliharaan. Aplikasi dibangun menggunakan *Flutter* dan *Dart*, *API PHP*, basis data *MySQL*, layanan *Fonnte*, serta *cron* pada *server*. Hasil penelitian menghasilkan aplikasi dengan akses berdasarkan peran admin, khatib, imam, dan bilal, sedangkan jamaah dapat mengakses informasi tanpa *login*. Admin dapat menambah, mengubah, dan menghapus data petugas, menyusun jadwal khutbah, mengelola materi dan pengumuman, mengatur pengiriman pengingat, serta melihat riwayat pesan. Khatib dapat melihat jadwal tugas dan mengelola materi khutbah dalam bentuk teks, *PDF*, rekaman *audio*, serta transkrip. Imam dan bilal dapat melihat jadwal tugas dan menerima informasi pengingat. Jamaah dapat melihat jadwal khutbah, materi, rekaman *audio*, daftar petugas, pengumuman, waktu salat, dan arah kiblat. Pengingat *WhatsApp* dapat dikirim secara manual maupun otomatis setelah Subuh serta dilanjutkan dengan pengingat susulan apabila diperlukan. Berdasarkan pengujian *black-box*, fungsi utama aplikasi berjalan sesuai dengan hasil yang diharapkan. Dengan demikian, MyKhutbah dapat membantu Pengurus Masjid Ar-Rahman II Sepahat mengelola jadwal dan menyampaikan informasi khutbah Jumat secara terpusat serta mudah diakses.

Kata Kunci : MyKhutbah, *Flutter*, Penjadwalan Khutbah, *WhatsApp*, Informasi Masjid.

ANDROID-BASED FRIDAY SERMON SCHEDULING APPLICATION WITH A WHATSAPP BOT AT AR-RAHMAN II SEPAHAT MOSQUE

Student Name : Muhammad Zulkifli
NIM : 6103230076
Supervisor : Eko Prayitno, M.Kom

ABSTRACT

The Friday sermon schedule at Ar-Rahman II Sepahat Mosque was previously managed through written records and direct communication, meaning that schedule changes, duty assignments, sermon materials, and information for congregants were not yet handled within a single application. This study aims to develop MyKhutbah, an Android-based Friday sermon scheduling application equipped with WhatsApp reminders. The application was developed using the Waterfall method, which consists of requirements analysis, design, implementation, testing, and maintenance. The application was built using Flutter and Dart, a PHP API, a MySQL database, the Fonnite service, and a server-side cron job. The result of this study is an application that provides role-based access for administrators, preachers, imams, and bilals, while congregants can access information without logging in. Administrators can add, update, and delete officer data, arrange Friday sermon schedules, manage sermon materials and announcements, configure reminder delivery, and view message history. Preachers can view their duty schedules and manage sermon materials in the form of text, PDF files, audio recordings, and transcripts. Imams and bilals can view their duty schedules and receive reminder information. Congregants can access Friday sermon schedules, sermon materials, audio recordings, officer information, announcements, prayer times, and the Qibla direction. WhatsApp reminders can be sent manually or automatically after Fajr and followed by additional reminders when necessary. Based on black-box testing, the main functions of the application operated as expected. Therefore, MyKhutbah can assist the management of Ar-Rahman II Sepahat Mosque in organizing schedules and delivering Friday sermon information through a centralized and easily accessible application.

Keywords: *MyKhutbah, Flutter, Sermon Scheduling, WhatsApp, Mosque Information.*