An artificial intelligence-supported mobile dream interpretation application

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***Abstract*—Drema is an application developed to understand and interpret the dreams of mobile users. Integrated with Kotlin, PHP, NodeJS and MySQL technologies, Drema offers users dream interpretations enriched with ChatGPT's natural language processing capabilities. Users send their dreams through the mobile application, these dreams are interpreted by the ChatGPT API** [1] **and the results are shared with the users.**

Keywords—Drema, Mobile Development, API, ChatGPT, Firebase, MySQL, NodeJS, Kotlin

I. INTRODUCTION

Drema aims to bring an innovative approach to the dream interpretation process. Integration of technologies such as Kotlin, PHP, NodeJS, MySQL, Firebase[2] and ChatGPT enriches the dream experience by providing users with intelligently interpreted dreams. In this project, all of the above technologies work in an integrated manner, providing a comprehensive dream interpretation experience.

II. Nomenclature

- Drema

Integrated application that manages the dream interpretation process and presents the results to users.

- RemAPI

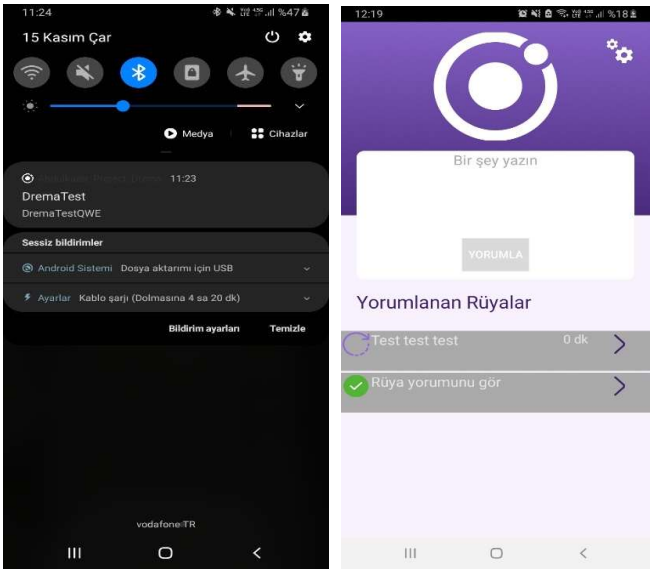
Interface that represents the API following the design principles of REST[3] or representational state transfer architectural style and manages communication between the mobile application, the ChatGPT API, and the database.

- RemNode

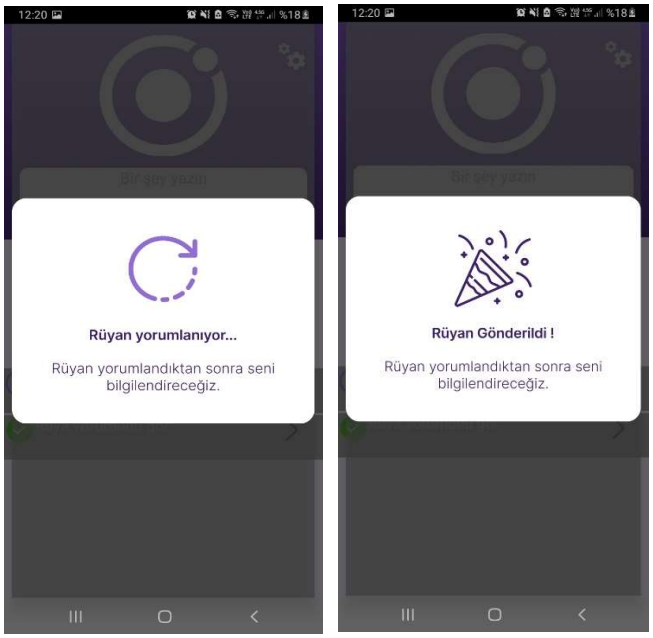
NodeJS-based application that interprets dream information received from the database with RemAPI using ChatGPT API.

III. Detailed Analysis of Implementation Strategies and Algorithms

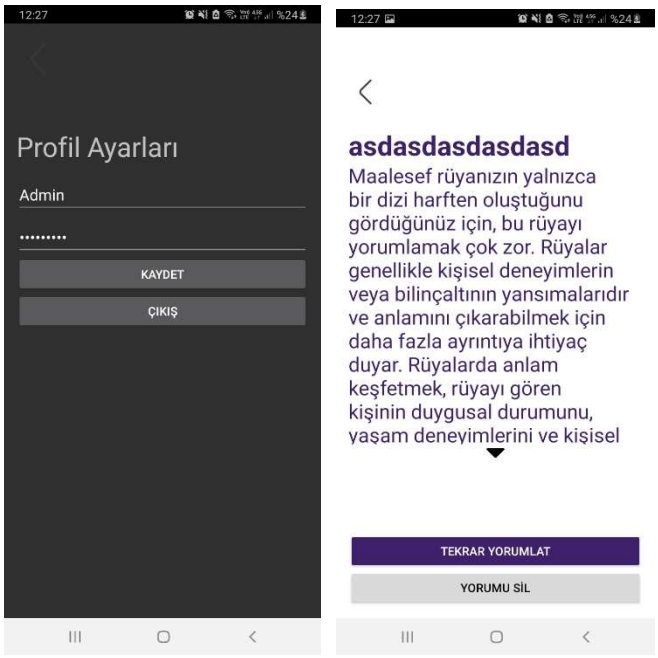
Drema's algorithm has superior programming techniques and its security structures are also at a high level. Drema receives registration information from the user and saves it in the database with RemAPI. Of course, since some of the data must come encrypted, the data is encrypted with SHA-256[4] before leaving the application and reaches the database that way. In this way, no information leakage is allowed on the database or RemAPI. At the same time, my log algorithms on my server record and check the fingerprint[7] information of any device that requests my server. After interpreting the dream of the user in the database with RemNode, it is recorded back into the database with RemAPI. The RemNode project is specified as a cronjob[6] on my server and runs in one-minute periods. When Drema is uploaded to the Google Play Store, it is uploaded in aab format and thus has tampering protection. At the same time, no files on my server have outside access permission. After RemNode records the dream interpretation process in its database, it sends a "Your Dream Has Been Interpreted" notification to the user's device via Firebase technology. Each device has a special key and is automatically changed at certain intervals. The changed keys are updated in the database again via RemAPI.



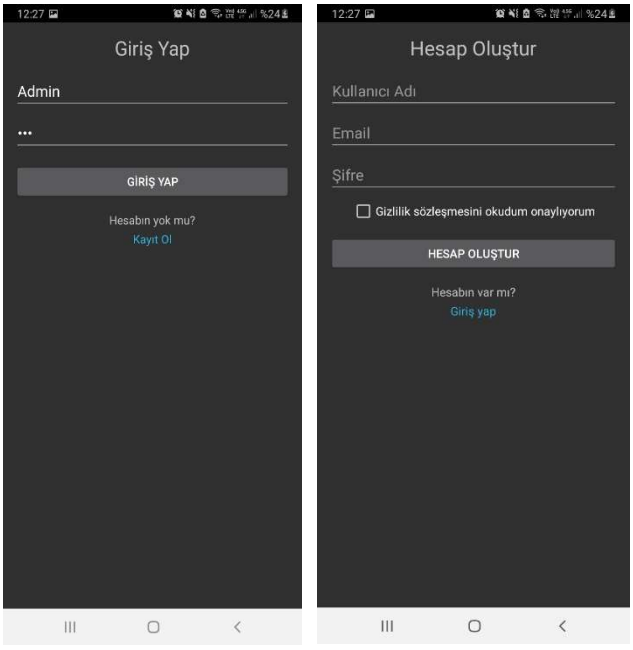
1. Notification Test On Android



2 Info Designs



3 Profile Page Design & Interpreted Dream Page Design



4 Login Page & Create Account Page Designs

IV. Conclusion

Drema was developed with the vision of providing users with intelligently interpreted and meaningful content while bringing a technological modernity to the concept of dream interpretation. Its technological infrastructure is designed to optimize user experience and ensure reliability at every stage. This project aims to offer users unique insight by making the dream interpretation experience more personalized and interactive than ever before.

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