

**Project Name:**

**Student Housing Management System (Skoon)**

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**Project Sponsor :**

**Eng. Abdelhameed Yousef**

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**Project Manager:**

**Eng. Omar Khalifa Hammam || Eng. Abdelhameed Yousef || Eng. Abdelrahman Nashaat || Eng. Abdelrahman Nas**

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**Date :**

**October 24, 2025**

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**Project Purpose and Justification:**

**Many university students face real struggles when searching for a suitable place to live. Most of them waste a lot of time moving between different areas, visiting unsafe or uncomfortable places, and dealing with people who are not always .honest about prices or housing conditions**

**Some students are forced to accept rooms far from campus because they cannot find clear information or trusted options. Others fall into unfair deals with .brokers who take advantage of their need for quick housing**

**This situation makes the housing process stressful, confusing, and sometimes even unsafe. Students often feel lost, mad, and unsure where to start or who to trust .when looking for a new home**

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**Project Description:**

**This project focuses on developing a mobile application that simplifies student housing management. It allows users to view detailed listings, compare prices .and amenities, and book accommodation directly through the app**

**Using AI and automation, the system can recommend the best housing options based on individual preferences such as price, comfort, location, and services. The app also includes payment integration for easier financial transactions and .an admin dashboard for managing listings and user data**

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### **Project Objectives:**

- Complete the full app development before the end of 2027 •**
- Reach 100,000 active users within the first year after launch •**
- Support up to 20,000 concurrent users at once •**
- Provide a simple and friendly GUI for all users •**
- Integrate AI for smart recommendations and chatbot support •**
- Offer secure and easy payment methods inside the app •**
- Be the most trusted and accurate housing app for university students •**

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### **Deliverables:**

- Fully functional mobile application available on Google Play and App Store •**
- Real-time updated housing database •**
- Simple and attractive user interface (GUI) •**
- AI module for recommendations and chatbot services •**
- Secure payment system integrated with local and international methods •**
- Admin dashboard for managing data and users •**
- Automatic notification system for updates, contracts, and payments •**
- The AI system learns from user preferences to improve recommendations over time •**

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### **Milestones & Timeline:**

- Team selection: 1 month •**
- Project structure and idea analysis: 1 month •**
- Competitor and market research: 2 weeks •**
- ERD design and task distribution: 1 week •**
- Development and coding: 6 months •**
- Testing and final delivery: 1 month •**

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### **Technical Requirements:**

**Platform:** Mobile application (Android & iOS) built with Flutter (Dart), using •  
•.Firebase for authentication and database

•.Operating System: Android 10+ and iOS 13 •

•.Hardware: Runs on smartphones with  $\geq 4$ GB RAM and mid-range processor •

•.Database: Firebase Cloud Firestore for storing user accounts, housing details, •  
•.and reviews

•.Performance: Supports 20,000+ concurrent users with  $<3$ s response time •

•.Security: Role-based access (Student – Owner – Admin) with full data •  
•.encryption

•.Integration: Connects with university systems for verification and payment •  
•.services

•.User Interface: Clean, responsive, and easy for both students and admins •

•.Automation: Sends automatic notifications for updates, payments, or renewals •

•.AI Integration: Uses AI for housing recommendations and chatbot support •

•.Backup & Recovery: Automatic regular data backups and quick recovery •  
•.options

•.Logging & Auditing: Keeps records of all user activities and system changes •

•.The AI system learns from user preferences to improve recommendations over •  
time

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#### **Limits and Exclusions:**

•.The system will not include a web or desktop version •

•.Integration is limited to university housing systems and approved payment •  
•.gateways

•.No GPS tracking of users will be included •

•.Hardware purchases or upgrades are excluded •

•.User training beyond the in-app guide is not covered •

•.Future updates and added features will belong to later project phases •

•.The AI system learns from user preferences to improve recommendations over •  
time

•.The project must follow the approved timeline and budget unless reapproved •

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#### **Approval:**

\_\_\_\_\_ :Project Sponsor: \_\_\_\_\_ Date •

\_\_\_\_\_ :Project Manager: \_\_\_\_\_ Date •