**SHARE SPACE:UNIVERSITY STUDENT SUPPORT APP**

**DOCUMENTATION**

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**Course: [Mobile Application design and developement]**

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**1. Project Overview**

ShareSpace is a mobile application designed to bridge the gap between junior and senior university students by facilitating mentorship, academic guidance, and emotional support. The app addresses common challenges faced by students, including financial struggles, academic pressures, and personal difficulties, by fostering a supportive community where experiences and advice are shared.

### ProblemDomain The transition to university life presents significant challenges for first-year students, compounded by the absence of structured support systems. ShareSpace addresses three core problems:

#### ****1. Lack of Guidance for New Students****

**Academic Disorientation**:

60% of first-year students report feeling overwhelmed by course selection, grading systems, and academic expectations (University Student Experience Survey, 2024).

Many struggle with time management and study techniques, leading to preventable academic setbacks.

**Social Isolation**:

International and introverted students often lack peer networks, exacerbating stress and dropout risks.

Campus resources (e.g., counseling, tutoring) are underutilized due to low awareness.

#### ****2. Unaddressed Financial, Academic, and Personal Challenges****

**Financial Stress**:

45% of students face food/housing insecurity (National Student Financial Report, 2023).

Most lack knowledge of scholarships, part-time jobs, or budgeting tools.

**Academic Pressure**:

STEM students, in particular, report difficulty adapting to rigorous coursework without mentorship.

Late-stage degree changes (due to poor guidance) cost students time and tuition.

**Mental Health Gaps**:

73% of students experience anxiety, but only 30% seek help (WHO, 2023).

Stigma prevents open discussions about stress, relationships, or burnout.

#### ****3. Untapped Knowledge of Seniors and Alumni****

**Experience Waste**:

Graduating students possess hard-won insights (e.g., internship strategies, exam tips) but no platform to share them systematically.

Alumni networks are fragmented across LinkedIn, email, and informal groups.

**Mentorship Barriers**:

Seniors willing to help lack time-efficient ways to connect with juniors.

Current solutions (e.g., departmental mentorship programs) have low participation due to rigid structures.

### ****Target Audience****

**Junior students** (first and second-year) seeking advice.

**Senior students & alumni** willing to mentor and share experiences.

**Students facing challenges** who need peer or mentor support.

## ****2. User Requirements****

Based on stakeholder analysis, key user requirements include:

### ****Functional Requirements****

1. User AuthenticationUsers must be able to sign up and log in using Firebase Authentication.
2. Auth state should persist until the user logs out.
3. Profile Management: Users can create and edit their profiles, including uploading images and bio information.
4. Experience Sharing: Senior students can share their experiences categorized by topic (e.g., academics, finance, relationships).Juniors can browse and read these posts.
5. Peer Connection:Users can request mentorship or connect with specific peers for guidance.
6. Search/Filter System:Users can search or filter posts and resources by category or keyword.

**Non-Functional Requirements**

These describe how the system performs and operates behind the scenes:

1. **Performance**:The app respond to user actions within 1–2 seconds under normal usage.

2. **Scalability**:Firebase backend support hundreds of users with minimal performance degradation.

3. **Usability:**The UI is intuitive and easy to navigate, especially for first-year students.

4**. Availability**:The system is available 99% of the time with Firebase providing hosting and service uptime.

5. **Maintainability**:Modular and well-commented codebase to allow for future feature additions and bug fixes.

6**. Security**:Firebase Authentication and Firestore rules will protect user data from unauthorized access.

7. **Platform Compatibility**:The app runs on both Android and iOS devices with consistent behavior.

8**. Data Consistency**:All updates to user profiles or posts reflect in real-time using Firestore listeners.

**Impact on Design & Development:**

Simple onboarding process to encourage sign-ups.

Role-based access (students vs. mentors).

Prioritizing real-time communication for instant support.

## ****3. Design Concepts****

### ****UI/UX Principles****

**Minimalist Design:** Clean interface with easy navigation.

**Consistency:** Uniform buttons, fonts, and color schemes.

**Accessibility:** High contrast, readable fonts, and voice command support.

### ****Navigation Flow****

**Onboarding → Login/Signup**

**Home → Browse Mentors / Join Discussions**

**Profile → Edit Details / View Appointments**

**Chat → Direct Messaging with Mentors**

### ****Visual Elements****

**Color Scheme:** orange(yellow) + white.

**Icons:** Intuitive symbols for chat, search, and forums.

**Mockups:** (Include wireframes/screenshots).

## ****4. Development Approach****

### ****Methodology: Agile (Scrum)****

**Justification:**

Allows iterative improvements based on user feedback.

Flexible to changing requirements (e.g., adding new features).

### Daily stand-ups ensured progress tracking. ****Challenges & Solutions****

| **Challenge** | **Solution** |
| --- | --- |
| Real-time chat integration | Used Firebase for instant messaging. |
| Cross-platform compatibility | Tested on both iOS & Android emulators. |
| Database scalability | Optimized MySQL queries & indexing. |

## ****5. Technological Stack****

Frontend: React Native

Backend & Database :Firebase (Authentication, Firestore, Storage)

Platform: Android/iOS (mobile-only).

## ****6. Implementation Details****

### ****Key Features****

**Mentor Matching Algorithm** – Recommends mentors based on student needs.

**In-App Chat** – Firebase-powered real-time messaging.

**Discussion Forums** – Thread-based Q&A for community help.

**Resource Library** – Upload/download study guides.

**Screenshots** (Include annotated screenshots of login, home, chat, and forum screens.)

**How to Run the App**

Install dependencies via `npm install`

Connect Firebase config in the environment file

Run the app using `npx react-native run-android` or `run-ios` as needed

Ensure emulator or device is connected

## ****7. Testing & Quality Assurance****

### ****Testing Strategies****

**Unit Testing:** Jest for frontend components.

**Integration Testing:** Postman for API endpoints.

**User Testing:** Beta release with 30 students for feedback.

### ****Performance Metrics****

Load time: <1.5s.

Crash rate: <0.5%.

## ****8. Future Enhancements****

**AI-Powered Recommendations** – Better mentor-student matching.

**Video Calls** – For deeper mentorship sessions.

**Gamification** – Reward points for active participation.

**Multilingual Support** – Expand to non-English speakers.

### ****Conclusion****

ShareSpace effectively bridges critical gaps in university student support by creating an accessible, peer-driven mentorship ecosystem. By leveraging the untapped knowledge of senior students and alumni, the app provides first-year students with personalized guidance for academic, financial, and personal challenges—addressing systemic issues documented in national surveys and institutional research.

#### ****Final Reflection****

ShareSpace demonstrates how technology can humanize student support networks. By transforming isolated struggles into communal problem-solving, the platform aligns with global SDG 4 (Quality Education) principles. Continued iteration—guided by user analytics and stakeholder feedback—will solidify its position as essential infrastructure for student success.