SOFTWARE ENGINEERING REPORT

"Project Title: helpmeout App"

TEAM NAME: " DEVDREAM"

TEAM MEMBERS:

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INTRODUCTION:

The "College Service" project is a Flutter application designed specifically for IIITA students. The application aims to facilitate the sharing of various services among students, promoting a collaborative and supportive community. The app features several services, each serving a unique purpose:

1. Car Pooling:

Students can create posts to share rides or cab services with fellow students, promoting a more sustainable and cost-effective means of transportation.

2. Food Ordering:

Students can create posts to share information about food orders, encouraging collective ordering to avail greater discounts and foster a sense of community.

3. Lost & Found:

Users can upload posts regarding lost or found items, creating a centralized platform for tracking and retrieving belongings.

4. Mess Feedback:

Students can provide feedback for their respective mess services, allowing for constructive criticism and improvement.

5. Resources:

Users can upload and access resources related to their courses, aiding in collaborative learning and resource sharing.

6. Buy & Sell:

Students can upload descriptions of items they want to sell or look for items they want to buy within the IIITA community.

7. Chat:

Users can engage in direct communication with each other through a chat feature, enhancing interaction and connectivity.

8. Feed:

A feed section allows users to post important information or announcements, creating a platform for disseminating crucial updates.

Feasibility Analysis:

The project is considered feasible within the given scope, leveraging the flexibility and efficiency of serverless Flutter applications. The outlined services address specific needs within the student community, and the development involves standard practices in mobile app development.

Novelty:

The project brings innovation by combining various services within a single application, fostering a sense of community and collaboration among IIITA students. The integration of different features into a cohesive platform distinguishes "College Service" from standalone service applications.

Challenges:

The project presents challenges in implementing various functionalities within a serverless Flutter application. Managing different types of user-generated content, facilitating real-time communication, and ensuring a seamless user experience are potential challenges that need careful consideration.

Real-World Applicability:

"College Service" directly addresses the daily needs and challenges faced by students, making it applicable in a real-world university setting. The app encourages community engagement and provides practical solutions for common issues faced by students.

Informal List of Requirements (Functionalities):

Refer to the attached excel sheet for a detailed list of project requirements including unique IDs and project description.

Tools and Technologies Used:

1. Programming Language:

- Dart (Flutter framework for frontend)

2. Serverless Architecture:

- Firebase for backend services

3. Database:

- Firebase Firestore for data storage

4. Version Control:

- Git for collaborative development

5. Integrated Development Environment:

- Visual Studio Code for coding and testing

6. Documentation:

- Markdown for project documentation

7. Communication:

- Discord for team collaboration and communication

8. Deployment:

- Flutter's online development environment (Flutlab) for initial testing and deployment.

Conclusion:

The "College Service" project envisions a holistic approach to address the diverse needs of IIITA students. With a focus on community collaboration and innovative service sharing, the application has the potential to become an integral part of student life, providing practical solutions to daily challenges. The outlined functionalities, coupled with the use of modern technologies, contribute to the feasibility and novelty of the project. The team is excited about the prospect of developing a valuable and impactful application for the IIITA community.