

Centennial College

**School of Engineering Technology and Applied Science
ICET Department**

Mobile Application Development Project MAPD-726

Project Plan

Alumni Portal Social App for Centennial College

Team 007

Submitted To:

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Submitted By:

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Due Date:

31st January 2023

Project Plan Proposal

1. Introduction

The Centennial College Alumni Portal Social App is an innovative platform that connects alumni and current students. With features including job referrals, event sharing, general posting, community suggestion, and questionnaires, it allows alumni to stay engaged with their alma mater. Additionally, students have a personal space to connect with batch mates and maintain relationships formed at college. This app, built for Android, is the ultimate solution for staying connected and informed about alumni and student progress.

1.1. Overview

The Centennial College Alumni Portal Social App is designed to serve as a central hub for alumni and current students to connect and stay informed. The app, developed for the Android platform, will provide a forum for job referrals, event sharing, general posting, community suggestion, questionnaires, and feedback or comments.

This platform will allow alumni to maintain a meaningful connection with the college community and participate in various activities, regardless of their graduation date. It will provide opportunities for professional networking and career advancement, helping alumni and students stay connected, informed, and engaged with the college.

Additionally, students will have a personal space within the app where they can connect and communicate with their batch mates. This will provide an opportunity for students to maintain and strengthen relationships formed during their time at Centennial College.

1.2. Deliverables

S. No.	Deliverables	Format	Specification	Due Date
1	Project Management Plan	Word or PDF Document	To outline the timeline, budget, and resources required to complete the project.	By end of Week 3
2	Release Plan	PDF Document	Plan for the final release, including the timeline, feature list, and launch strategy	By end of Week 3
3	Design with Prototype	Design Documents with high-fidelity mock-ups (Figma Link)	Basic layout, user interface, and design of the app	After every sprint for next sprint
4	Project Status Report	Word or PDF Document	Summary of progress, achievements, and challenges encountered during each sprint/release	Weekly report after every Sprint/Release

5	Presentation & Demo	Presentation Slides and Live Demo	Demonstration of new features and improvements in each sprint/release	Weekly demo after every Sprint/Release
6	Test Report and Plan	PDF Document	Detailed report on the testing process, including test cases, results, and any issues encountered	Weekly demo after every Sprint/Release
7	Functional Android App	APK or Bundles (Release to the Play Store)	A fully functional app that meets the requirements and specifications outlined in the project proposal.	Week 13
8	Source Code	Code Files	Complete, well-documented, and organized source code of the app.	Week 13
9	Firebase Access	Access to Firebase	Access to the cloud database and backend services used in the app	Week 13
10	User Manual	Word or PDF Document	Detailed instructions on how to use and navigate the app	Week 14
11	System Documentation	Word or PDF Document	Technical documentation of the app's design, architecture, and data flow.	Week 14
12	Final Report and Presentation	PDF Document and Presentation Slides	Detailed analysis of the project, including development process, challenges, and future scope.	Week 14

1.3. Assumptions and Constraints

Assumptions:

1. The target audience is composed of alumni and current students of Centennial College.
2. The project budget is sufficient to cover the development and deployment of the app.
3. The college administration is supportive of the project and will provide necessary resources and information.
4. The development team has the required technical skills and experience to deliver the app.
5. Alumni will be willing to share information and updates with their college community.
6. The college has accurate information on all alumni and students.

Constraints:

1. Limited budget and resources available for the project.
2. Strict deadlines for delivery of the app.
3. The app must comply with privacy and security regulations.
4. The app must be compatible with the Android platform and meet Google Play Store requirements.
5. The development team may face technical challenges in integrating the app with existing college systems and databases.
6. Technical limitations of the Android platform.

1.4. Risks and Assets

Risks:

1. **Technical Challenges:** There may be technical difficulties in developing and integrating the app with the college database or other existing systems.
2. **User Adoption:** There may be challenges in getting alumni and students to adopt and use the app.
3. **Data Privacy:** There may be risks associated with the storage and protection of user data.
4. **Schedule Overrun:** The project schedule may slip due to technical challenges, user requirements changes, or other unforeseen circumstances.
5. **Quality Assurance:** There may be risks associated with ensuring the app meets the necessary quality standards and is user-friendly.
6. **Integration with College Systems:** There may be challenges in integrating the app with the college's existing systems.

Assets:

1. **Skilled Development Team:** A talented and experienced development team is essential to ensure the successful delivery of the app.
2. **User Feedback:** User feedback can help drive the development of the app and ensure it meets the needs of the college community.
1. **College Support:** Support from the college, including funding, resources, and relationships with alumni, can be a significant asset.
2. **Integration with College Systems:** Integration with the college's existing systems can provide a seamless user experience and increase the value of the app.
3. **User-friendly Design:** A user-friendly design can help increase adoption and engagement with the app.
4. **Technological Innovation:** The use of new and innovative technology can provide a competitive advantage and increase the value of the app.
5. **Strong Project Management:** Strong project management can help ensure the project is delivered on time, on budget, and to the required quality standards.

2. Management Structure

2.1. Project Life Cycle

The Scrum Agile methodology will be used for the development of the Centennial College Alumni Portal Social App. This approach is chosen due to its flexibility and adaptability, making it ideal for the fast-paced and ever-changing environment of software development.

The Scrum methodology follows an iterative and incremental approach, where the product is developed in small iterations, allowing for constant feedback and improvements. This approach enables the project team to quickly respond to changes in requirements and prioritize the most important features to deliver a high-quality product.

Additionally, the Scrum methodology places a strong emphasis on teamwork and collaboration, making it a suitable choice for the development of a social app that requires close collaboration between the development team and stakeholders.

By using the Scrum Agile methodology, the project team will be able to deliver a high-quality and user-friendly alumni portal app that meets the needs and expectations of the Centennial College community.

2.2. Project Organization

The project organization for the Centennial College Alumni Portal Social App consists of the following individuals:

1. Manmeen Kaur - Analyst and Tester
2. Sarthak Vashistha - Developer
3. Hafiz Shaikh - Developer and Designer
4. Amrik Singh - Developer and Designer
5. Krisuv Bohara – Developer

Everyone is responsible for their specific role within the project and will work together to ensure the successful completion of the project. The team is dedicated to delivering a high-quality product that meets the needs and expectations of the users.

2.3. Risk and Asset management

For the alumni portal android app project, the risk and asset management process should involve the following steps and will be managed continuously through the project life cycle:

Risk Management:

1. **Identification:** The project team will identify potential risks at the beginning of the project and continuously throughout the project life cycle.
2. **Assessment:** The risks will be evaluated in terms of likelihood and impact to the project.
3. **Mitigation:** The project team will develop and implement strategies to mitigate the identified risks.
4. **Monitoring:** The project team will continuously monitor and update the risk management plan to ensure its effectiveness.

Asset Management:

1. **Identification:** The project team will identify all assets necessary for the successful completion of the project, including hardware, software, and personnel.
2. **Tracking:** The project team will track the status of all assets throughout the project life cycle, ensuring their availability and proper usage.
3. **Maintenance:** The project team will be responsible for the maintenance and upkeep of all assets.
4. **Updating:** The project team will continuously update the asset management plan to ensure its effectiveness.

2.4. Issue Management

Issue management for the Centennial College Alumni Portal Social App project will be handled using Jira bug tracking software. This software will provide a centralized platform to log and track issues, assign responsibility, set priority, and track progress. The team will prioritize and manage issues based on their severity, impact, and priority. Jira will be used by the development team, project managers, and client to track and resolve issues, ensuring project success. The steps involved are:

- Use Jira as the bug tracking tool
- Assign a unique identifier and priority level to each issue
- Monitor and track issue progress
- Regular status update meetings with the development team
- Escalate critical issues to appropriate stakeholders for resolution
- Close resolved or deferred issues
- Keep client informed of issue status
- Continuously prioritize and assess issues to keep project on track.

2.5. Communications

Communication is a critical aspect of project management, and it is essential to ensure that everyone involved in the project is well informed and aware of the status and progress of the project. For the Centennial College Alumni Portal Social App project, the following communication plan will be put in place:

- **Weekly Project Status Report and Meeting:** Regular status update meetings will be held between the development team, project managers and stakeholders to keep everyone informed of the project progress and any challenges faced.
- **Email updates:** Email updates will be sent out to client If needed to keep them informed of the issues, project status, progress, and any significant events.
- **Project management tools:** Project management tools such as Jira and Trello will be used to manage tasks, issues, and bugs and will provide a centralized platform for all project-related information.
- **One-on-one meetings:** One-on-one meetings with client and team members can be arranged if needed to discuss specific issues or provide updates on the project.
- **Team collaboration:** The development team will collaborate daily to discuss the progress of the project and resolve any challenges faced.

This communication plan will help ensure that everyone involved in the project is aware of the project status and progress, and that any issues are addressed in a timely manner.

3. Planning and Control

3.1. Estimate

For 14-week project duration with each team member having 4 hours per week, the estimated staff weeks for each task can be calculated as follows:

Task	Team Member	Estimated Hours	Estimated Staff Weeks
Project Management	Manmeen Kaur	28 hours	7 weeks
Design	Hafiz Shaikh & Amrik Singh	56 hours + 56 hours	14 weeks
Implementation	Sarthak Vashistha & Krisuv Bohara	56 hours + 56 hours	14 weeks
Testing & QA	Manmeen Kaur	28 hours	7 weeks

3.2. Resource Identification

The resource identification for the Centennial College Alumni Portal Social App project includes the following:

Team Size: 5 members

Duration: 4 months

Budget: \$20,000

Team Members:

1. Manmeen Kaur - Analyst/Tester
2. Sarthak Vashistha - Developer
3. Hafiz Shaikh - Developer/Designer
4. Amrik Singh - Developer/Designer
5. Krisuv Bohara– Developer

The team members will be working on the project for 4 months, with 4 hours per week assigned to each team member. The total budget for the project is \$20,000. This budget will cover the cost of software, hardware, and other resources necessary to complete the project successfully.

3.3. Resource Allocation

Resource Allocation refers to the process of distributing available resources (such as time, budget, and personnel) to various tasks or activities within a project. In the context of the Centennial College Alumni Portal Social App project, resource allocation would involve determining how much time and effort each team member will spend on different tasks over the course of the project. This would be indicated in the project schedule, which outlines the timeline for each task, the resources required for each task, and the team members responsible for completing each task.

The project schedule would consider the number of hours available for each team member (4 hours per week), the overall project duration (14 weeks), and the estimated staff weeks for each task (as calculated in the previous estimate). Based on this information, the project schedule would allocate the appropriate

number of resources (in terms of time and effort) to each task, ensuring that the project is completed within the desired timeframe and budget.

Resource	Allocation	Duration
Manmeen Kaur	Analyst/Tester	14 weeks
Sarthak Vashistha	Developer	14 weeks
Hafiz Shaikh	Developer/Designer	14 weeks
Amrik Singh	Developer/Designer	14 weeks
Krisuv Bohara	Developer	14 weeks

3.4. Schedule

Release Plan #	Sprint Plan #	Due Date (Submission)	Demo / Presentation
Release 1	Sprint 1	2/07/2023	2/08/2023
Release 1	Sprint 2	2/14/2023	2/15/2023
Release 1 (Software code + Test cases)	Sprint 3	2/28/2023	3/01/2023
Release 2	Sprint 1	3/07/2023	3/08/2023
Release 2	Sprint 2	3/14/2023	3/15/2023
Release 2 (Software code + Test cases)	Sprint 3	3/21/2023	3/22/2023
Release 3	Sprint 1	3/28/2023	3/29/2023
Release 3	Sprint 2	4/04/2023	4/05/2023
Release 3 (Software code + Test cases)	Sprint 3	4/11/2023	4/12/2023
Final Project Release and Presentation		4/19/2023	4/19/2023

3.3. Tracking and Control

Tracking and Control for the Centennial College Alumni Portal Social App project will be carried out through weekly status reports. These reports will be used to track and control project costs and schedule. The following tools will be used as specified in the course outline:

- **Weekly Status Report:** This will provide a comprehensive update on project progress, including any risks or issues that have arisen, and the steps taken to address them.
- **Project Schedule:** The project schedule will be used to track progress against the planned timeline. Any changes to the schedule will be tracked and reported on in the weekly status report.
- **Cost Tracking:** Project costs will be tracked and reported on in the weekly status report. Any variances from the budget will be highlighted and investigated.
- **Risk Management:** Risks will be continuously monitored and reported on in the weekly status report. Mitigation strategies will be implemented where necessary.

The purpose of tracking and control is to ensure that the project stays on track and that any potential roadblocks are addressed in a timely and effective manner. Regular status updates and communication with all clients will be an integral part of this process.

4. Technical Process

4.1. Environment

The project environment for the Centennial College Alumni Portal Social App will be in Laboratory A3-17. This laboratory provides a secure and conducive environment for the team to work and complete the project. With access to all the necessary tools and resources, the team will be able to efficiently complete the project within the given timeline.

4.2. Methods, Tools, and Techniques

Methods, tools, and techniques are the various approaches and resources that are utilized in the project management process to plan, execute, and control the project effectively. The specific methods, tools, and techniques that will be used in the project will depend on the nature and scope of the project, as well as the preferences of the project team.

For the Centennial College Alumni Portal Social App project, the following methods, tools, and techniques will be used:

Methods:

- Agile Scrum Methodology

Tools:

- Jira Project Management and Bug Tracking Software
- Microsoft Teams
- Email
- Visual Studio Code
- Android Studio

Techniques:

- Weekly Status Report
- Requirements Analysis
- Release Planning
- Sprint/Iteration Planning
- Design
- Development
- Testing and Quality Assurance
- Bug fixing

By using a combination of these methods, tools, and techniques, the project team will be able to effectively plan, execute, and control the project, ensuring that the project is delivered successfully.

4.3. Technology

The technology used in this project includes:

- React Native
- Firebase
- react-native-firebase library
- Visual Studio Code
- Android Studio

Additionally, the team may also use other tools and techniques to ensure project success, such as version control systems such as Git, project management software such as Jira, and testing and debugging tools. These tools and techniques will be chosen based on the specific needs of the project and the preferences of the team members.

5. Supporting Plans

Supporting plans are secondary plans that provide additional information or guidance related to the main project plan. Supporting plans for the Centennial College Alumni Portal Social App project could include:

5.1. Configuration Management

For the Centennial College Alumni Portal Social App project, the following CM activities will be performed:

Artifact	Description
Documentation	All project related documentation, including project plan, requirements, user stories, design specifications, etc.
Release and iteration plans	Detailed plans for each release and iteration, including timeline, tasks, and deliverables.
User stories	Detailed descriptions of the features and functionality required for the project.
Architecture specs	Technical specifications for the system architecture and infrastructure.
Status reports	Weekly status reports detailing progress, issues, and risks.
Design specs	Detailed specifications for the design of the system and user interface.
Source code	All source code for the project, including code for all components and modules.

The project artifacts will be stored in a version control repository, such as Git, to ensure that they are kept organized and easily accessible by the project team. Builds will occur daily to ensure that the project is always up-to-date and that any bugs or issues are addressed promptly.

5.2. Quality Assurance

Quality Assurance (QA) is an important aspect of the Alumni App project that ensures that the end product meets the requirements and is of high quality. The following activities will be performed as part of the QA process:

1. **Requirements Validation:** The QA team will validate that the requirements are complete, clear, and accurately reflect the desired functionality of the app.
2. **Testing:** The QA team will perform various types of testing, such as unit testing, integration testing, system testing, and acceptance testing, to ensure the app is functioning as expected.
3. **Bug Tracking:** The QA team will use bug tracking software, such as Jira, to log and track all bugs and issues found during testing.
4. **Defect Resolution:** The development team will be responsible for fixing all bugs and issues found during testing. The QA team will verify that the defects have been properly resolved.
5. **Code Reviews:** The QA team will perform code reviews to ensure the code is of high quality and meets the standards set by the organization.
6. **Continuous Improvement:** The QA team will continuously monitor the results of the testing and make recommendations for improvements to the development process.

By following these activities, the Alumni App project will be able to deliver a high-quality product that meets the needs of the stakeholders and users.

5.3. Testing

Quality assurance and testing are critical components of the Alumni App project. The goal of QA is to ensure that the final product meets the required standards and specifications. To achieve this, the following activities will be performed:

- **Test Case Design:** This outlines the test cases that will be executed to validate the functionality of the app. Test cases should cover all the user stories, use cases, and requirements defined in the project scope.
- **Unit Testing:** This type of testing will be performed on individual units of code to ensure that they are functioning as expected. The development team will be responsible for performing unit tests.
- **Integration Testing:** This type of testing will be performed after the integration of individual units of code. The focus of integration testing is to identify and resolve issues that may arise when the units are combined.
- **System Testing:** This type of testing will be performed on the complete system to ensure that it is working as expected and meets the requirements.
- **User Acceptance Testing:** This type of testing will be performed by the stakeholders to ensure that the final product meets their requirements and expectations.
- **Security Testing:** Security testing will be performed to ensure that the system is secure and protected against any potential security threats or attacks.

In summary, the testing activities will be performed to ensure that the Alumni App is of high quality, meets the requirements, and is ready for release.

5.4. Deployment

The system will be deployed on the Google Play Store for Android users and the App Store for iOS users.