ASM

Budget Wise

Application development

ASM 1

Introduction

Welcome to our presentation on the "CampusExpense Manager" mobile app, developed by BudgetWise Solutions. This app is designed to help university students track their expenses, set budgets, and manage their finances effectively. In this presentation, we will outline the project's objectives, user and system requirements, potential challenges, and proposed solutions to ensure a successful and timely launch of the app.

Introduction our team

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Project Overview

Stakeholders:

Investor: BudgetWise Solutions – wants an effective expense management system.

Users: Students – easily track expenses, budget, and receive notifications.

Development Team: 5-member team, ensuring project progress and quality.

Time Line

INTRODUCTION

PROBLEM STATEMENT & USER REQUIREMENTS

CHALLENGES AND DIFFICULTIES

BUSINESS SOLUTIONS

RISK MANAGEMENT

CONCLUSION

Stakeholders and Expectations:
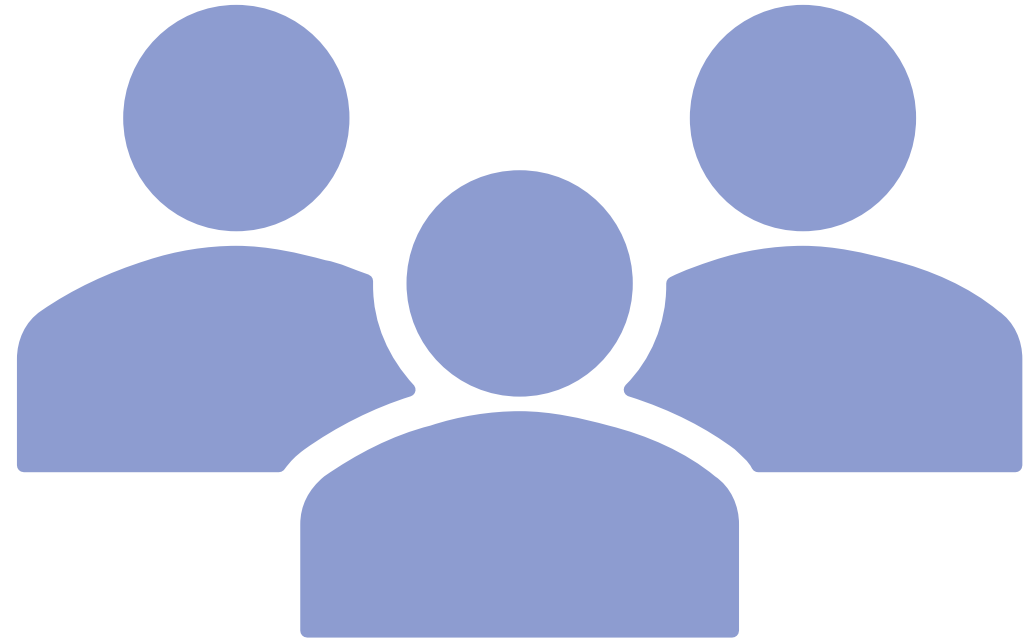
1. Students (Primary Users):

- Expect a simple, intuitive app to track expenses and set/manage budgets.
- Look for helpful features like notifications and reports to keep them informed.
- Value security and privacy of their financial data.

2. BudgetWise Solutions Team:

- Responsible for designing, coding, and delivering a functional, secure app.
- Must meet the development timeline, ensuring the app is ready within 12 weeks.

3. University Administrators:

- Interested in promoting responsible financial behavior among students.
- Expect the app to be an effective tool for helping students manage their money better.

System Requirements Overview

Function requirement
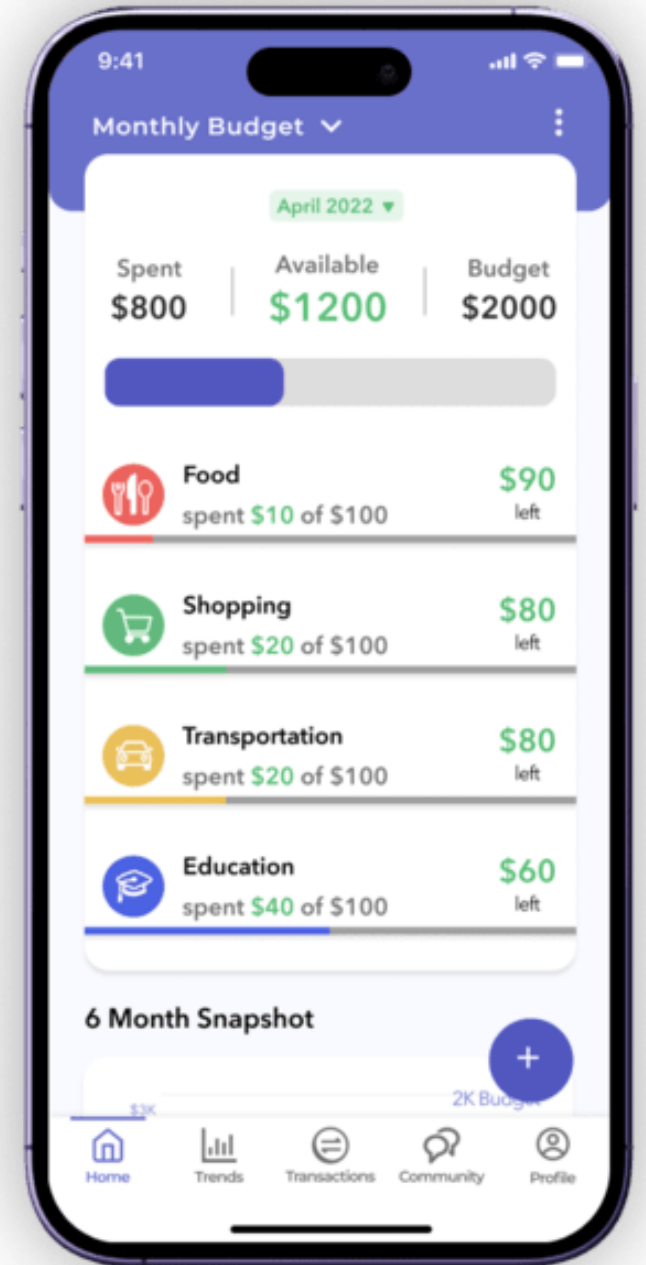
1. User Registration and Authentication:

- Users must create an account with a username and password.
- Secure authentication is required to protect user data.

2. Expense Tracking:

- Users can add, edit, and categorize expenses (e.g., rent, food, transportation).
- Each expense should include a description, amount, date, and category.

3. Budget Setting:

- Users can set monthly budgets for different categories (e.g., food, entertainment).
- Ability to adjust budget limits as needed.

4. Expense Overview:

- A summary of monthly spending, remaining budget, and category-wise breakdown.

- Option to view expense trends over time.
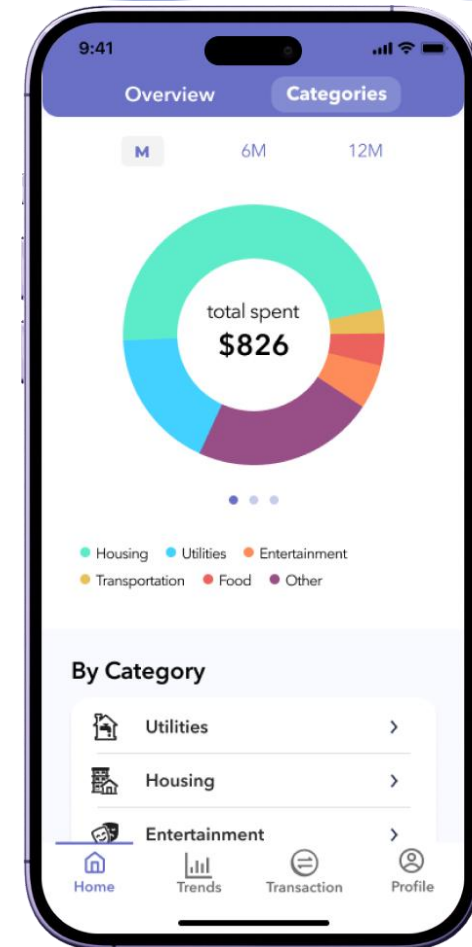
5. Recurring Expenses:

- Users can add recurring expenses (e.g., rent) with specific start and end dates.

- Automatic addition of recurring expenses to the monthly budget.

6. Expense Reports:

- Generate detailed reports for specific periods (e.g., monthly, annually).

- Breakdown of expenses by category for analysis.

7. Notifications:

- Users receive alerts when they approach or exceed budget limits.

Non-function requirement

- Performance: The application works smoothly even with large data.

- Security: Encrypts data and encapsulates security standards (e.g. GDPR).

- Offline capability: Users can enter data without an internet connection. Data will automatically sync when a connection is available.

- User-friendly interface: The interface design is simple, intuitive, and easy to use for students.

Challenges and Difficulties

Development Timeline

Budget Constraints

Limited Resources and Team Expertise

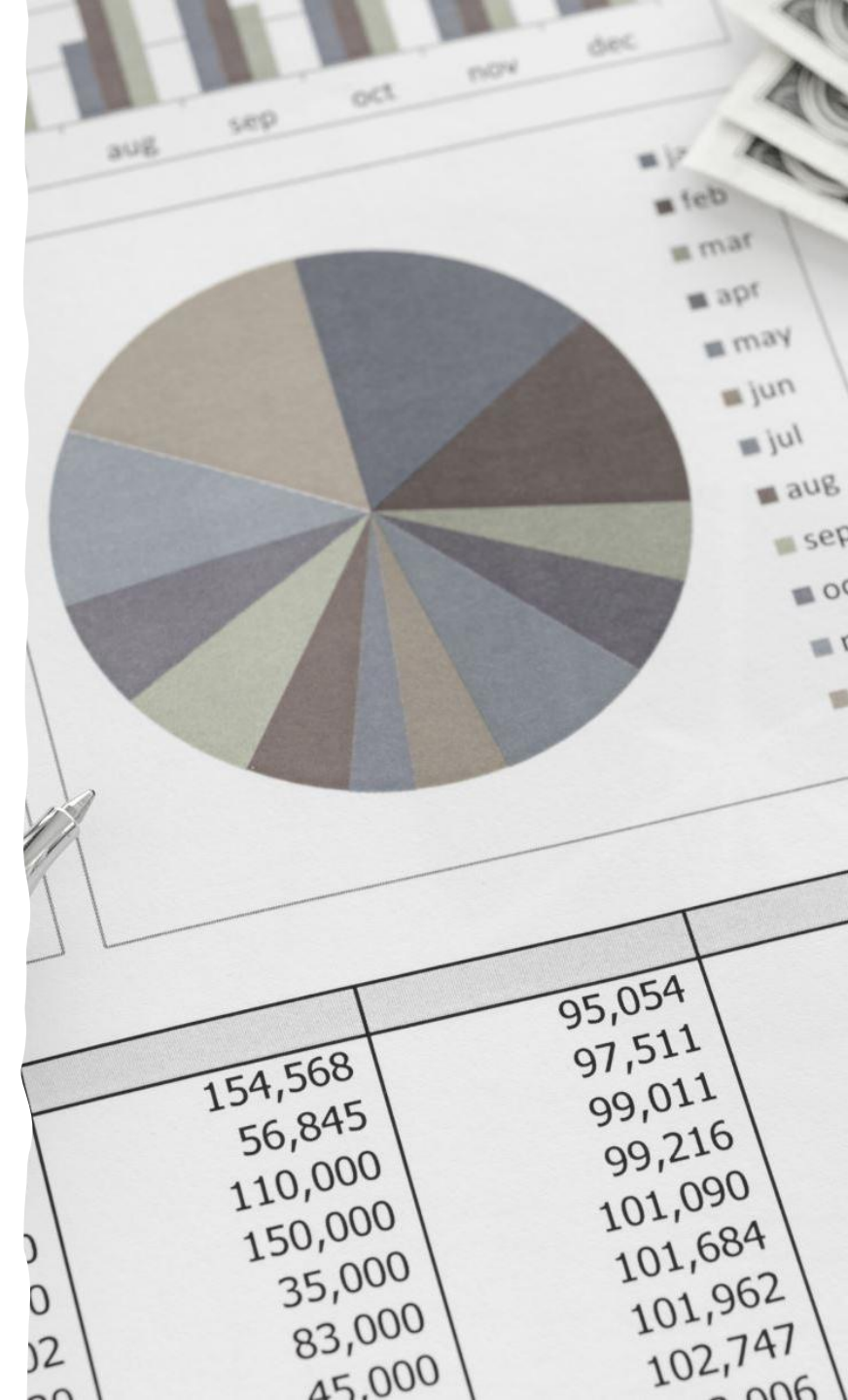Platform Compatibility

Data Privacy and Security

Offline Capability

Team Experience

Issues to Address

- Performance: Optimize performance, ensure no lag when processing a lot of data.

- Compatibility: Support both Android and iOS with the lowest cost.

- Recurring Expenses: Manage recurring expenses effectively, automate but still ensure accuracy.

- Report Generation: Create monthly/yearly expense reports with vivid chart interface.

Possible Business Solutions

Desktop App:

- Advantages: Displays more information, easier to develop.

- Disadvantages: Lacks flexibility, not suitable for students.

Mobile App:

- Advantages: Easy to use, can be carried around at all times, integrated push notifications.

- Disadvantages: Need to optimize interface and performance for mobile devices.
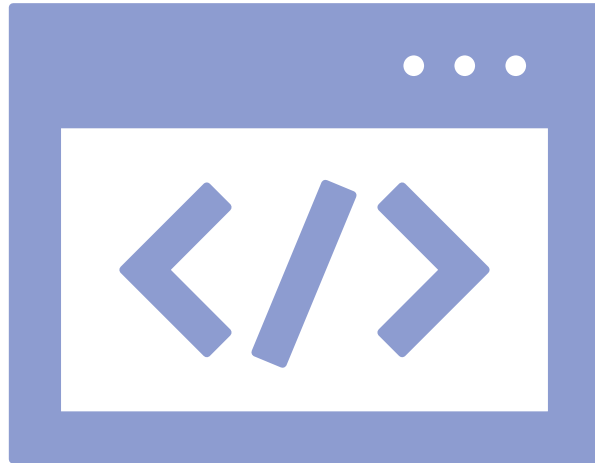
Why Mobile App?

- Meet the mobile needs of students.

- Increase interaction through notifications and friendly interface.

- Support offline use, suitable for weak network areas.

Risks in Development

Risks in Development

- Technical: Integrate APIs for Android and iOS, ensure code is bug-free.

- Project: Pressure to complete in 12 weeks, budget constraints.

Risk Management Strategies

Technical training for the team on Android Studio and Swift.

Divide the project into small modules for better progress management.

Regulatory and Compliance Risks

Apply data encryption and use HTTPS protocol.

Comply with data security regulations such as GDPR.

Monetization Risks

Define your advertising strategy clearly, avoid annoying users.

Design paid features that are attractive but do not detract from the free experience.

Summary of Risk Mitigation

Enhance team skills, use management tools like Jira.

Test regularly and evaluate feedback from testers.

Preview of Key Features and Solutions

1. User Registration and Authentication

- Integrate email/password login.

- Use SHA256 encryption to protect user data.

2. Expense Tracking and Categorization

- Simple form for entering expenses with pre-defined categories.

- Can search, filter and edit data.

3. Budget Setting and Notifications

Drag and drop interface to set budget limits.

Send push notifications.

4. Offline Capability

Allows data entry and saving even when connection is lost.

5. Reports and Analytics

- Create pie charts and bar charts to show spending.

- Compare spending levels month by month.

6. Integration with Tools

- Link to Google Calendar or system calendar for reminders.

7. User Feedback System

- Integrate feedback form within the application.

- Easily submit suggestions or report bugs.

8. Closing Slide

- Summary: Introduce project goals, importance and team commitment.

Conclusion

In conclusion, the "CampusExpense Manager" app is designed to meet the financial management needs of university students, providing them with a simple and effective tool to track their expenses and manage their budgets. Despite challenges like limited resources and a tight timeline, BudgetWise Solutions has identified key strategies to ensure successful project delivery. By focusing on core functionality, addressing risks, and utilizing the right development tools, this project aims to empower students to make informed financial decisions and achieve greater financial stability during their academic journey.

Thanks for watching