UTM
UNIVERSITI TEKNOLOGI MALAYSIA

SECD2613: SYSTEM ANALYSIS AND DESIGN

ASSIGNMENT 1 : PROJECT PROPOSAL

BUDGET TRACKER APPLICATION
PROJECT TITLE: BUDGET BUDDY

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MALAYSIA-JAPAN INTERNATIONAL INSTITUTE OF TECHNOLOGY (MJIIT)

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Topic : Budget Buddy

Develop a simple budget tracking application to help users manage their finances. Include features like expense categorization, monthly summaries, and visualizations.

Executive Summary:

The Budget Buddy project aims to framework and develop a user-friendly mobile application designed to assist individuals, families, and students in managing their finances effectively. The application will allow users to track their expenses, categorize them, and visualize their spending patterns using pie charts. Users will be able to manage multiple accounts (cash, bank cards, or other) and view the current balance of each account. The expenses categorization will include predefined categories such as Food, Social Life, Transportation, Health & Beauty, and more, with the option for users to customize categories as needed. Additionally, the application will feature an account section where users can access transaction history, manage accounts, and set budget limits for each account. This project reflects our organization's commitment to financial literacy and empowering people to handle their money wisely.

Background:

In a fast-paced world, managing personal finances is increasingly challenging. Recognizing a need for simplicity, the Budget Buddy Application was born from casual conversations among friends frustrated by the complexities of financial independence. Evidently, there was a widespread demand for a convenient tool to track expenses and monitor spending habits. Driven by a shared vision to empower individuals and families with better financial management tools, the team embarked on a journey to develop the Budget Buddy Application. Drawing inspiration from successful budgeting apps and user feedback, we set out to create a user-friendly and visually appealing mobile application platform that simplifies the process of budget tracking and expense management.

Objectives:

1. Develop a user-friendly mobile application, Budget Buddy, aimed at assisting individuals, families, and students in effectively managing their finances.

2. Implement features allowing users to track expenses, categorize them, and visualize spending patterns using pie charts, thereby facilitating better financial decision-making.

3. Enable users to manage multiple accounts (cash, bank cards, etc.) within the application, providing them with a comprehensive view of their financial status.

4. Offer customizable expense categories such as Food, Social Life, Transportation, Health & Beauty, etc., catering to diverse user preferences and financial needs.

5. Incorporate an account management section allowing users to access transaction history, manage accounts, and set budget limits for each account, enhancing financial control and accountability.

6. Prioritize user experience and interface design to ensure intuitive navigation and seamless interaction, aligning with the organization's commitment to financial literacy and empowerment.

Methodology:

1. Project Initiation:
   ● Conduct a kickoff meeting to introduce team members and stakeholders to the project objectives, scope, and expectations.
   ● Define the project timeline, milestones, and deliverables.
   ● Assign roles and responsibilities to team members based on their expertise and availability.
2. Requirements Gathering and Analysis:
   ● Gather detailed requirements through stakeholder interviews, user surveys, and market research.
   ● Analyze the gathered requirements to prioritize features and functionalities based on user needs and project goals.
   ● Create a comprehensive requirements document outlining the functionalities, user stories, and acceptance criteria.
3. Design Phase:

- Develop wireframes and mockups for the mobile application interface, focusing on simplicity, usability, and visual appeal.
- Incorporate feedback from stakeholders and usability testing to refine the design.
- Finalize the user interface design and create a design specification document for development.

4. Development:
   - Utilize agile development methodologies such as Scrum or Kanban to facilitate iterative development and continuous feedback.
   - Divide the project into sprints, with each sprint focusing on implementing specific features or user stories.
   - Develop the backend infrastructure to support user account management, expense tracking, categorization, and visualization features.
   - Implement frontend functionality for intuitive navigation, seamless interaction, and responsive design across various mobile devices.

5. Testing and Quality Assurance:
   - Conduct comprehensive testing of the application to ensure functionality, usability, performance, and security.
   - Perform unit testing, integration testing, regression testing, and user acceptance testing (UAT) throughout the development process.
   - Address and resolve any issues or bugs identified during testing promptly.

6. Deployment and Launch:
   - Prepare for the deployment of the Budget Buddy application on mobile app stores (e.g., Apple App Store, Google Play Store).
   - Create marketing materials and promotional strategies to generate awareness and attract users to download the application.
   - Monitor the deployment process and address any issues that may arise during the initial launch phase.

7. Post-Launch Support and Maintenance:
   - Provide ongoing support to users through FAQs, tutorials, and customer service channels to address any questions or issues.
   - Monitor user feedback and analytics to identify areas for improvement and new feature requests.
   - Release updates and patches regularly to enhance the application's functionality, performance, and security based on user feedback and technological advancements.

Resources:

1. Personnel:
- Project Manager: Responsible for overseeing the entire project, coordinating tasks, and ensuring timely delivery.
- Developers (Frontend & Backend): Responsible for coding and implementing the app's functionalities.
- UI/UX Designer: Designs the user interface and user experience elements of the app.
- Quality Assurance (QA) Tester: Conducts testing to identify and address any bugs or issues.
- Deployment Specialist: Handles the deployment of the app to various platforms (e.g., App Store, Google Play Store).
- Maintenance Team: Ensures the app runs smoothly post-launch and releases updates as needed.

2. Equipment:
- Development Workstations/Laptops: High-performance computers for developers and designers to work on.
- Testing Devices: Smartphones and tablets for testing the app on different platforms and screen sizes.
- Servers: For hosting the backend infrastructure of the app.

3. Software:
- Integrated Development Environment (IDE): Visual Studio Code, Xcode, for coding.
- Design Tools: Adobe XD, Sketch, or Figma for UI/UX design.
- Version Control System: Git for collaboration and version control.
- Project Management Tools: Jira, Trello, or Asana for task management and collaboration.
- Testing Tools: Selenium, Appium, or XCTest for automated testing.

4. Dedicated Task Time:
- Planning and Research: 1-2 weeks
- Design Phase: 1-2 weeks
- Development: 2-3 weeks
- Testing and Feedback: 1-2 weeks
- Deployment and Training: 1 week
- Maintenance: Ongoing preview.

Budget:

1. Personnel Costs:
   - Project Manager: RM 10,000 - RM 15,000
   - Developers: RM 15,000 - RM 25,000 each
   - UI/UX Designer: RM 10,000 - RM 15,000
   - QA Tester: RM 8,000 - RM 12,000
   - Deployment Specialist: RM 8,000 - RM 12,000
   - Maintenance Team: RM 10,000 - RM 15,000 per month

2. Equipment Costs:
   - Workstations/Laptops: RM 5,000 - RM 8,000 each
   - Testing Devices: RM 3,000 - RM 5,000 each
   - Servers: RM 10,000 - RM 20,000

3. Software Costs:
   - IDE: Free to RM 2,000 per license
   - Design Tools: Free to RM 3,000 per license
   - Version Control System: Free to RM 1,000
   - Project Management Tools: Free to RM 5,000 per year
   - Testing Tools: Free to RM 10,000 per year

4. Other Costs:
   - Marketing and Advertising: RM 5,000 - RM 10,000
   - Legal and Compliance: RM 5,000 - RM 8,000
   - Miscellaneous Expenses: RM 3,000 - RM 5,000

5. Total Estimated Budget:
   - The total estimated budget from RM 100,000 to RM 200,000

Measurement and Reporting:

Task	Week	5	6	7	8	9	10	11	12	13	14	15	16
Planning Phase			▓	▓									
Project Initiation		░											
Project Plan				░									
Research and Design				▓	▓								
Marketing research			░	░									
Market competition and analysis			░	░									
Market target and size			░										
Finance and capital planning			░	░									
Development					▓	▓	▓						
Frontend & Backend					░	░							
Complete Development							░						
Testing and Feedback									▓	▓			
Unit & Integration Testing									░				
Maintenance										░			
Deployment and Training											▓	▓	
Project Review											▓	▓	
Introduce Prototype												▓	

Risks:

1. Data Security Breach
Medium to high risk; severe impact; mitigate with robust security measures and compliance with Malaysian data protection regulations.
2. Technical Issues or Bugs
High risk; moderate to severe impact; mitigate through thorough testing and dedicated QA team.
3. Poor User Adoption
Medium risk; moderate impact; mitigate with market research, user feedback iteration, and user-friendly features.
4. Competitive Pressure
Medium risk; moderate impact; mitigate by staying updated on market trends, offering unique features, and adapting to demands.
5. Integration Challenges with Third-Party Services
Medium risk; moderate impact; mitigate with thorough research, communication, and backup plans.
6. Scope Creep
High risk; moderate impact; mitigate by defining clear project scope, prioritizing features, and implementing change management processes.
7. Resource Constraints
Medium risk; moderate to severe impact; mitigate by monitoring resource utilization, considering outsourcing, and optimizing workflows.