

LAB 3 – Deliverables and Risk Mitigation Plan

Mobile Apps Development – LIS4012-1

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Deliverable	Description	Due Date
Requirements Specification	<p>Functional Requirements</p> <ul style="list-style-type: none"> • A user must be able to register using email and password. • The app must allow users to reset passwords via email. • The system must display notifications for new messages. • The user needs to have the same information in different android devices • The app should remember the user to update the financial data • When used offline, reflect the last data updated • Data encryption ensures confidentiality. <p>Non-functional Requirements</p> <ul style="list-style-type: none"> • The app must load within 3 seconds on a 4G network. • The system must handle up to 10,000 concurrent users. • The app should work on Android 10+ 	February 13th 2025
UI/UX Design	<p>User-Centered Features</p> <ul style="list-style-type: none"> • Budget Tracking: Set and monitor monthly budgets. • IExpense Categories: Automatically sort expenses (e.g., food, rent). • Goal Setting: Save for specific goals (e.g., trips, loans). • Reminders: Notify users about bills or overspending. <p>Clean Navigation</p> <ul style="list-style-type: none"> • Use a bottom navigation bar for quick access to key sections (Home, Budget, Expenses, Goals). • Home screen shows a financial overview 	February 13th 2025

	<p>(balance, recent transactions, goal progress).</p> <p>Visual Design</p> <ul style="list-style-type: none"> • Colors: Blues, cream and green. • Typography: Clean, readable fonts. • Icons: Simple and recognizable for easy understanding. <p>Feedback</p> <ul style="list-style-type: none"> • Easy access to support (chatbot/FAQ) and a feedback system for improvements. <p>Gamification</p> <ul style="list-style-type: none"> • Achievements, progress bars, and challenges to keep users motivated. <p>Personalization</p> <ul style="list-style-type: none"> • Customizable categories, themes (light/dark mode), and multi-currency support. 	
Backend Development	<p>Database related</p> <ul style="list-style-type: none"> • The sign in/sign up window must be connected to a database • Information like budget tracking, expenses, etc. must be stored in a database. • Get the information from the database back to the application for synchronization and accurate information <p>Other application features</p> <ul style="list-style-type: none"> • Ensure security for sensible data. • App notifications related to budgets, goals, overspending, etc. 	March 20th 2025

Frontend Development	Responsive Design <ul style="list-style-type: none"> • The application must adapt to different screen sizes (mobile phones, tablets, etc.) and orientations (horizontal/vertical). • Using ConstraintLayout or Jetpack Compose for flexible layouts. Visual Style <ul style="list-style-type: none"> • The app must follow Material Design guidelines to ensure a consistent and modern experience. • Use of components such as MaterialButtons, Cards, and Snackbars. • Color palette and typography aligned with the brand identity. Intuitive Navigation <ul style="list-style-type: none"> • Implement a fluid navigation system between screens. • Using a Navigation Component to manage navigation between fragments or activities. • Bottom menu (BottomNavigation) or side menu (Navigation Drawer) for quick access to the main sections. 	March 20th 2025
Testing & QA	Unit Testing <ul style="list-style-type: none"> • Verify that each individual component or function works correctly. Integration Testing <ul style="list-style-type: none"> • Ensure that different modules or components work correctly together. UI Testing <ul style="list-style-type: none"> • Verify that the user interface works as expected. Performance Testing <ul style="list-style-type: none"> • Evaluate the app's performance under different conditions. Security Testing	March 28th 2025

	<ul style="list-style-type: none"> Identify vulnerabilities and ensure user data protection. <p>Usability Testing</p> <ul style="list-style-type: none"> Evaluate user experience and ease of use. <p>Quality Assurance (QA) Process</p> <p>Test Planning</p> <ul style="list-style-type: none"> Define test cases for each functionality. Prioritize critical tests (e.g., authentication, data synchronization). Set success metrics (e.g., code coverage, response time). <p>Test Execution</p> <ul style="list-style-type: none"> Automate repetitive tests (e.g., unit tests, UI tests). Perform manual testing for complex or specific cases. Use staging environments that simulate production. <p>Bug Reporting and Resolution</p> <ul style="list-style-type: none"> Use tools like Jira, Trello, or GitHub Issues to manage bugs. Document bugs with clear details (e.g., steps to reproduce, screenshots). Prioritize fixing critical and high-priority bugs. <p>Regression Testing</p> <ul style="list-style-type: none"> Verify that recent changes haven't introduced new bugs. Run automated tests after each update. <p>Load Testing</p> <ul style="list-style-type: none"> Simulate multiple users to evaluate performance under load. Tools: Firebase Performance Monitoring, JMeter. 	
Deployment	<ul style="list-style-type: none"> The application is going to be submitted to Google Play 	To be defined
Post-Launch Support	<ul style="list-style-type: none"> Some bug fixes and other quality of life changes will 	Ongoing

	be implemented.	
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Risk	Impact	Mitigation Strategy
App Store Rejection	High	We are ensuring that the application fulfills the requirements of Google Play store, in order to avoid any rejections
Data Security Issues	Very High	The implementation of encryption algorithms are important, as well as secure APIs
Delays in Development	Medium	Develop a good planification of deliverables to ensure no delays in the development of the application
Compatibility Issues	Medium	We are going to be testing in different devices, in order to see some issues with compatibility or data saving