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Milestone System Explained

This template runs on a milestone system. This means that the requirements for each milestone must be completed before the date set forth by your instructor. This assignment is split up into 3 milestones, with different requirements for each one. Make sure you are reading through the requirements thoroughly and keep track of the due date for the milestone you are working on.

# Proof of Concept (POC) Design Document

**Milestone 1 (due end of class Friday Oct. 18)**

Introduction

*Provide an overview of the proposed software solution, its purpose, and potential benefits.*

**App Name**: **PiXELL-Bank Mobile**

PiXELL-Bank Mobile is a mobile banking application designed to provide PiXELL-River Financial customers with a convenient, secure, and innovative way to manage their finances anytime, anywhere. The app enables users to perform essential banking tasks such as checking account balances, transferring money, paying bills, and viewing transaction histories directly from their smartphones or tablets. It is optimized for seamless usability, ensuring that users of all ages and technical backgrounds can effortlessly navigate through its core features.

The purpose of PIXELL-Bank Mobile is to enhance user experience in online banking by focusing on usability, security, and innovative solutions like biometric authentication, voice commands, and personalized financial management tools. The app is designed to empower users by providing greater control and flexibility over their finances, while also maintaining the highest security standards to protect their accounts.

The primary goal of PiXELL-Bank Mobile is to make online banking easier, faster, and more secure for PiXELL-River Financial customers. The app aims to reduce friction in common banking processes while offering unique features that improve financial management. Key benefits of the app include:

* **Convenience:** Manage accounts and transactions on the go, reducing the need to visit physical bank branches.
* **Security:** Enhanced security features, including biometric login options (fingerprint and face recognition) and multi-factor authentication, ensure that user accounts are protected.
* **Personalization:** The app provides tailored financial tips, reminders, and notifications based on user behavior, helping users manage their finances more effectively.
* **Innovation:** Cutting-edge features such as voice command for hands-free navigation and gamification elements keep users engaged with their financial goals.

*Define the target user group based on market/user research, personas, and user journey maps.*

Based on comprehensive market and user research, PiXELL-Bank Mobile primarily targets two distinct user groups:

1. **Tech-Savvy Professionals (Ages 25-45)**: This group consists of working professionals who rely heavily on mobile technology to manage their finances. They value speed, flexibility, and innovative features in banking apps. They are comfortable with digital platforms and expect advanced functionality such as instant notifications, voice navigation, and quick transactions.
2. **Older Adults (Ages 50+)**: This group consists of individuals who value security, simplicity, and ease of use in banking services. They are less tech-savvy and prefer straightforward interfaces, clear instructions, and security features such as biometric authentication to avoid password-related complications.
3. **Educated General Public (Ages 18-65):** This broader group includes individuals with basic to advanced digital literacy. They expect a user-friendly experience with secure and easy-to-understand functionality. They may not be power users of technology but are familiar with essential app-based banking services, relying on convenience and clear options to manage everyday banking needs.

*Explain the specific user needs or pain points that the proposed solution is designed to address.*

Through detailed user journey mapping and persona analysis, the following specific user needs and pain points were identified, which the app is designed to address:

1. **Quick and Easy Account Access**: Users need instant access to their account information without navigating through complex menus or experiencing slow load times. The app’s **biometric authentication** and simple dashboard ensure they can log in and check balances or recent transactions in seconds.
2. **Seamless Money Transfers and Bill Payments**: Transferring funds and paying bills are two of the most frequent actions users take. Users dislike slow or complicated transfer processes, especially when dealing with external accounts. PiXELL-Bank Mobile streamlines these actions with a **Quick Transfer** feature and **easy bill scheduling**, making it intuitive and fast.
3. **Personalized Notifications and Reminders**: Users need timely notifications for account activities, bills, and upcoming payments to avoid missed payments or unexpected fees. The app provides **push notifications** and **custom reminders** to keep users informed.
4. **Security and Peace of Mind**: For many users, especially older adults, security is a top concern. They are frustrated by the need to remember multiple passwords or PINs. PiXELL-Bank Mobile solves this with **biometric login options**, ensuring both security and convenience.
5. **Innovative and User-Friendly Features**: Users, particularly tech-savvy professionals, want a modern app that integrates **voice commands** for hands-free banking, as well as **personalized financial advice** based on spending patterns. This makes the app not just a tool for transactions but also a resource for improving financial wellness.

User Needs and Market Research

*Analyze the user needs and preferences identified in the market/user research, personas, and user journey maps.*

PiXELL-Bank Mobile’s design directly responds to user needs identified through detailed market research, personas, and user journey maps. Key findings show that users prioritize **convenience, security, and personalization** in their banking experiences.

*Interpret findings from the provided case study and customer feedback. Identify key insights and trends that inform the proposed solution.*

The **Digital Services Usage Data** revealed that most customers access banking services via mobile devices. This supports our focus on a mobile-first solution. Additionally, users frequently engage with features like **fund transfers and bill payments**, reinforcing the need for streamlined processes in these areas.

Overall, the research clearly supports the development of a secure, easy-to-use, and personalized mobile banking experience that addresses these evolving user expectations.

*Discuss relevant information from the Internal Report: Digital Services Usage Data and Trends that supports your proposed solution.*

**Insights from Case Study and Customer Feedback**

From the case study and customer feedback, several trends emerged:

* **Convenience** is crucial for users, with most expecting quick access to core features like checking balances and making transfers.
* **Security concerns** were highlighted, especially among older users, who want simple but strong security measures like biometric login.
* **Personalized financial tools**, such as alerts for upcoming payments or savings tips, were consistently requested by tech-savvy users.

**Milestone 2 (due end of class Tuesday Oct. 22)**

Proposed Solution

*Provide a detailed description of the proposed software solution, including its key features and functions.*

*Clearly connect each feature or function with a specific user need or preference identified in your research.*

*Explain how the solution is feasible, given existing technology and resources.*

Feasibility Analysis

*Evaluate the potential for success of the proposed software solution based on your user needs and market research.*

*Discuss any potential challenges or obstacles and propose strategies for overcoming them.*

*Address how the solution fits within the broader market context and trends identified in the Internal Report.*

**Milestone 3 (due end of class Friday Oct. 25)**

UX Design

*Describe the user experience design of the proposed solution, focusing on usability and user satisfaction.*

*Use user journey maps to illustrate how users would interact with the solution, demonstrating its ease of use and efficiency.*

*Discuss any design principles or best practices you followed in designing the solution.*

Innovation

*Highlight the innovative aspects of your proposed solution, explaining how they offer value to users and differentiate the solution from existing products or services.*

*Explain how the innovative features or functions of the solution are feasible and how they contribute to the potential success of the solution.*

*Encourage creativity and bold thinking, while still grounding your design in the realities of technology and market trends.*