# CHALLENGE:
# FINANCE AND DIGITAL BANKING

Diego Toscano

diego.toscano@gmail.com

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# Contents


Challenge Instructions....3

Interview Challenge: Finance / Digital Banking....3

Jobs to be done....4

STORY MAPPING for XYZ Bank's Mobile Banking Product....5

MVP ROADMAP....5

Prioritized Functionalities for MVP....6

KPI *(Key Performance Indicator)* for the MVP....6

How to Track the KPI....7

3 Product Backlog Items (PBIs) with Complete User Stories....7

User Stories....7

1. View Account Balance....7

2. Transfer Between Own Accounts....8

3. User Story: Credit Card Payment....9

Target Personas for XYZ Bank's Mobile Banking Product....10

1. Techie Professional....10

2. Small Business Owner....11

3. Retiree....11

4. Student....11

SWOT Analysis of Top 3 Competitors....12

Competitor 1: Competitor Bank A....12

Competitor 2: Fintech Startup B....13

Competitor 3: Digital-only Bank C....13

Product Vision....14

Product Backlog....14

1. Must-Have (MVP)....14

2. Should-Have (Post-MVP)....15

3. Could-Have (Future Releases)....15

4. Won’t-Have (Out of Scope)....15

# Challenge Instructions

## Interview Challenge: Finance / Digital Banking

*The purpose of this challenge is to understand your skills and thought process, and how you apply them to product tasks.*

*The interview challenge is designed to replicate real case scenarios that a business analyst may face and needs to elicit requirements for the implementation. It serves as a valuable complement to in-person interviews, offering a practical assessment of your business analyst skills and approach.*

*In this exercise, there are no definitive 'correct' or 'incorrect' answers. Instead, we aim to gain insight into your problem-solving abilities, strategic thinking, and documentation techniques applied to the specific scenario and context.*

*We require you to complete at least the mandatory modules before the technical interview, being the optional modules desirable to complete a more thorough assessment.*

***Context and situation***

*"XYZ" bank is one of the top leaders in a small country on personal banking and it has been downsizing its offices around big cities, preserving small cities' attendance at 100%.*

*Aligning to this goal, they are reinforcing digital platform use.*

*The bank does not yet have a mobile application, only web online banking is available and client complaints are increasing as they can't operate as they wish to operate on their mobile devices.*

*By listening to the voice of the customer, they want to develop a new digital banking product for the mobile experience, covering both platforms: website and mobile.*

***Requirements***

*The new product must allow customers to perform the following operations:*

- *Transfers between own accounts*
- *Transfers between accounts of different banks*
- *Pay services*
- *Cash deposits*
- *Cash withdrawals*

*The solution must meet the following security and performance standards:*

- *Availability: The system must be available 99.9% of the time.*

- *Security & Accessibility: The system must protect customer information and meet accessibility requirements for this industry.*
- *Performance: The system must respond within 2 seconds.*

***Assumptions***

- *The existing web solution already counts with the described features and additional ones.*
- *The solution must apply to both cell phones and tablets.*

## Jobs to be done

***Required***

1. *Create a story mapping for the product*
2. *Create a high-level roadmap for implementing a first version of this product and provide an explanation about the functionalities that you consider top priority for this version.*
3. *Add at least one KPI related to one goal the client or team wishes to accomplish*
4. *Select 3 PBIs and draft the complete user stories adding further details: Description, AC, Wireframes, etc. If possible, include at least one user story covering back-end or technical requirements.*

***Optional***

5. *Define the target personas for your product*
6. *Include a SWOT analysis of the top 3 competitors of your product. Hint: you could use a generative AI tool for this ;)*
7. *State the product vision*
8. *Provide the product backlog including functional and non-functional requirements.*

***Note**: Please make all the assumptions that you consider in the product solution and deliver this exercise as a single file.*

# STORY MAPPING for XYZ Bank's Mobile Banking Product

# MVP ROADMAP

| Phase | Duration | Key Deliverables |
|---|---|---|
| Discovery & Planning | 2 weeks | • Finalize requirements<br>• Define MVP scope<br>• Create wireframes and prototypes |
| Core Development | 6 weeks | • Develop core features (account management, transfers, security, etc.)<br>• Backend integration |

| | | |
|---|---|---|
| Testing & Refinement | 3 weeks | • Conduct user acceptance testing (UAT)<br>• Fix bugs and refine features |
| Launch MVP | 1 week | • Deploy MVP to production<br>• Monitor performance and gather feedback |

### Prioritized Functionalities for MVP

| **Functionality** | **Features** | **Reason for Priority** |
|---|---|---|
| Account Management | • View account balance<br>• View transaction history | Customers need to view and manage their finances effectively. |
| Transfers | • Transfer between own accounts<br>• Transfer to accounts in different banks<br>• View transfer history | Transfers are a core banking operation and a major customer pain point. |
| Security & Authentication | • Secure login (biometric, PIN)<br>• Two-factor authentication (2FA)<br>• Password reset and account recovery | Security is critical for gaining customer trust and ensuring compliance. |
| Performance & Availability | • Ensure 99.9% system availability<br>• Optimize system response time (<2 seconds) | A fast and reliable system is essential for customer satisfaction. |
| Payments | • Pay utility bills<br>• Pay credit card bills<br>• View payment history | Paying bills is a common use case for digital banking users. |

## KPI *(Key Performance Indicator)* for the MVP

As the client's goal is to **increase digital platform usage** and **reduce customer complaints** related to the inability to perform banking operations on mobile devices, here´s a **KPI** that **aligns with one of the primary goals** of the project.

| KPI | Definition | Target |
|---|---|---|
| Customer Adoption Rate | The percentage of existing online banking users who download and actively use the new mobile banking app within the first 3 months of implementation.<br><br>**Formula**:<br>*Customer Adoption Rate = (Total Number of Online Banking Users / Number of Active Mobile App Users) × 100* | Achieve a **30% adoption rate** within the first 3 months. |

## How to Track the KPI

1. **Data Collection**:
    - Track the number of downloads from app stores *(Google Play, Apple App Store)*.
    - Monitor the number of active users.
    - Use analytics tools to gather data on user engagement.
2. **Reporting**:
    - Generate reports on the adoption rate.
    - Share insights with stakeholders to assess progress toward the goal.
3. **Improvement Actions**:
    - If the adoption rate is below target, perform user surveys or interviews to identify obstacles.
    - Implement improvements based on feedback.

# 3 Product Backlog Items (PBIs) with Complete User Stories

Below are 3 detailed user stories, including Description, Acceptance Criteria (AC), Wireframes, and Technical Requirements.

## User Stories

### 1. View Account Balance

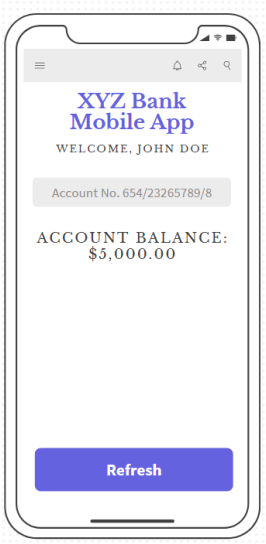
**Description:** As a customer, I want to view my account balance on the mobile app, so that I can track my finances.

**Acceptance Criteria (AC):**

- The account balance is displayed on the dashboard.
- The balance is updated in real-time whenever the user refreshes the screen.
- The balance is displayed in the local currency.
- If there are multiple accounts, the user can toggle between them to view individual balances.

- The balance is only visible after the user logs in securely.

**Wireframe:**




**Technical Notes:**

- The balance data will be fetched from the bank's core banking system via an API.
- Ensure the API response time is optimized to meet the 2-second performance requirement.

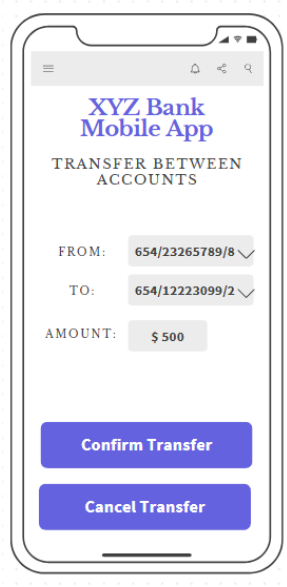
## 2. Transfer Between Own Accounts

**Description:** As a customer, I want to transfer money between my own accounts, so that I can manage my funds.

**Acceptance Criteria (AC):**

- The user can select a source account and a destination account from a dropdown list.
- The user can enter the transfer amount.
- The user must confirm the transfer.
- The user can cancel the transfer.
- The transfer must be processed instantly, and the updated balances must be reflected in real-time.
- The user receives a confirmation message with a transaction ID after the transfer is successful.

**Wireframe:**




**Technical Notes:**

- The transfer functionality will use the bank's existing backend API for inter-account transfers.
- Ensure the API is secure and complies with industry standards (e.g., encryption, authentication).

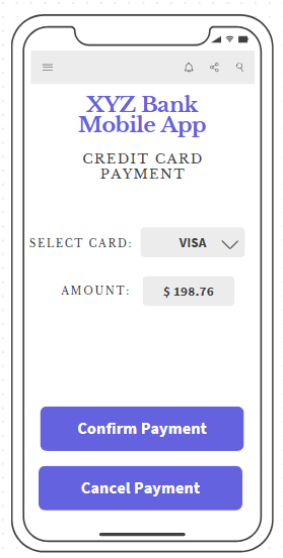
## 3. User Story: Credit Card Payment

**Description:** As a customer, I want to pay my credit card bill using the mobile app, so that I can avoid late fees and manage my debt effectively.

**Acceptance Criteria (AC)**

- The user can select a credit card from a list of linked cards.
- The user can enter the payment amount.
- The user must confirm the payment with a secure authentication method (e.g., PIN or biometric).
- The user can cancel the payment.
- The payment must be processed instantly, and the updated credit card balance must be reflected in real-time.
- The user receives a confirmation message with a transaction ID after the payment is successful.

**Wireframe:**




**Technical Notes:**

- The payment functionality will use the bank's existing backend API for credit card payments.
- Ensure the API is secure and complies with industry standards (e.g., encryption, authentication).
- Integrate with the credit card system to fetch real-time balances and transaction details.

# Target Personas for XYZ Bank's Mobile Banking Product

## 1. Techie Professional

**Demographics**

- **Age**: 25–40
- **Occupation**: Young professionals, entrepreneurs, or freelancers

**Goals**

- Manage finances efficiently.
- Perform banking transactions quickly.
- Access advanced features.

**Pain Points**

- Limited time due to a busy schedule.
- Frustration with slow banking apps.
- Concerns about data security and privacy.

**Behavior**

- Prefers mobile apps over desktop.
- Uses smartphones for most daily tasks.
- Expects an intuitive user experience.

## 2. Small Business Owner

**Demographics**

- **Age**: 30–50
- **Occupation**: Owners of small to medium-sized businesses (e.g., retail shops, restaurants)

**Goals**

- Manage business finances (e.g., payroll, vendor payments) efficiently.
- Access real-time account information to make decisions.
- Simplify cash flow management.

**Pain Points**

- Difficulty in tracking business expenses and income.
- Limited time to visit bank branches.
- Concerns about transaction fees and processing times.

**Behavior**

- Uses both mobile and desktop platforms for banking.
- Prefers apps with features adapted to business needs (e.g., bulk payments).
- Values reliability and security for business transactions.

## 3. Retiree

**Demographics**

- **Age**: 60+
- **Occupation**: Retired

**Goals**

- Access account information easily.
- Perform basic transactions (e.g., transfers, bill payments) without visiting a branch.

**Pain Points**

- Difficulty using complex digital platforms.
- Concerns about online security and scams.
- Limited familiarity with mobile apps.

**Behavior**

- Prefers simple and intuitive interfaces.
- Relies on family or bank staff for technical support.
- Uses mobile apps for basic tasks but may still visit branches for complex transactions.

## 4. Student

**Demographics**

- **Age**: 18–25
- **Occupation**: College or university students

**Goals**

- Manage limited finances effectively.
- Track spending and save money.
- Perform basic banking tasks (e.g., transfers, bill payments) easily.

**Pain Points**

- Limited financial knowledge.
- Difficulty managing expenses.
- Frustration with apps that lack student-friendly features.

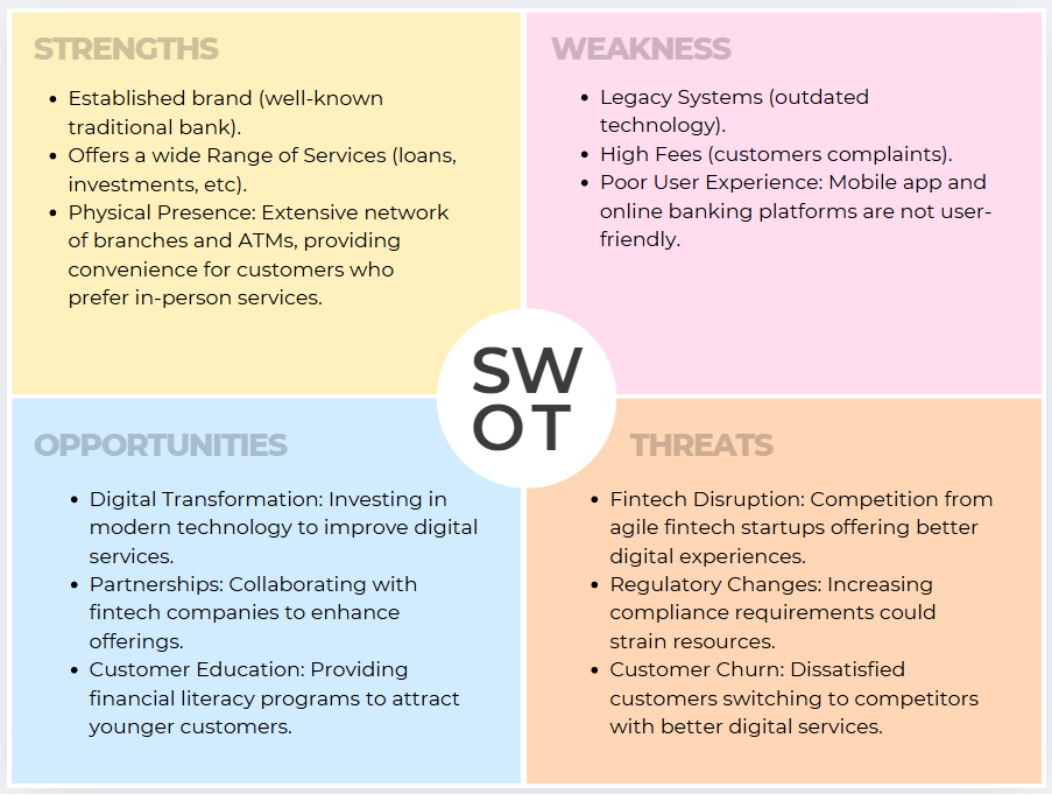
**Behavior**

- Highly tech-savvy and comfortable with mobile apps.
- Prefers apps with modern designs and social features (e.g., peer-to-peer payments).
- Uses smartphones for most daily activities.

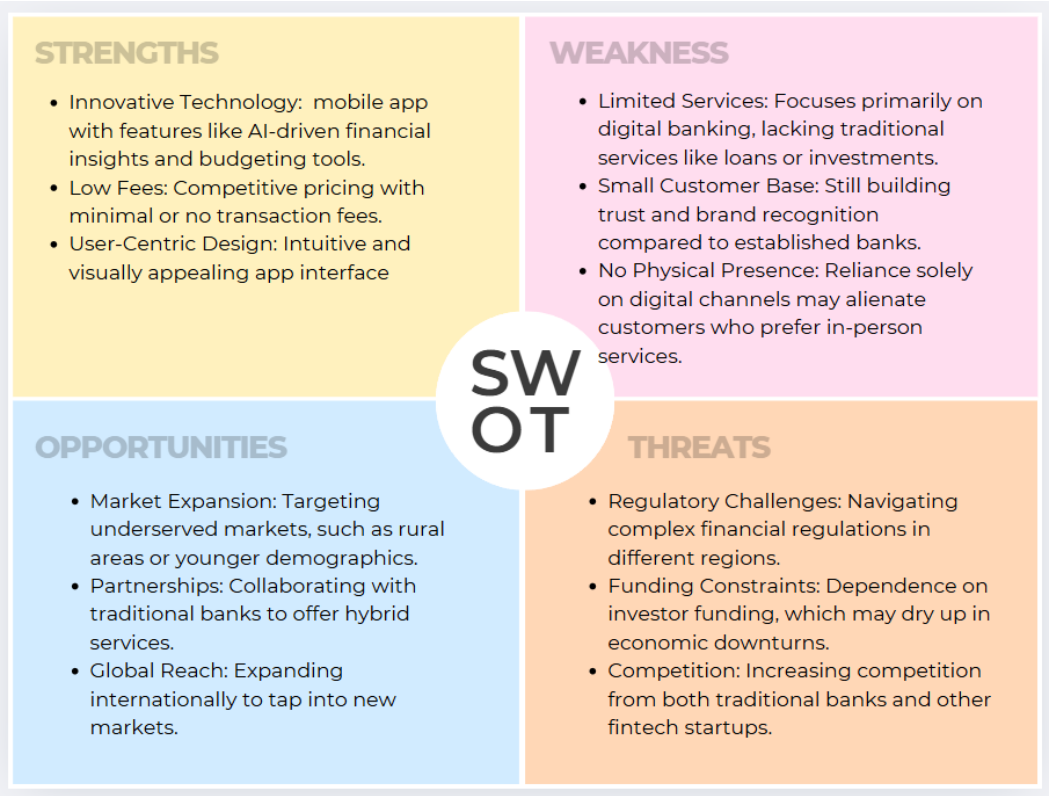
## SWOT Analysis of Top 3 Competitors

To understand the competitive landscape for XYZ Bank's mobile banking product, we'll analyze the **Strengths**, **Weaknesses**, **Opportunities**, and **Threats** (SWOT) of three key competitors.

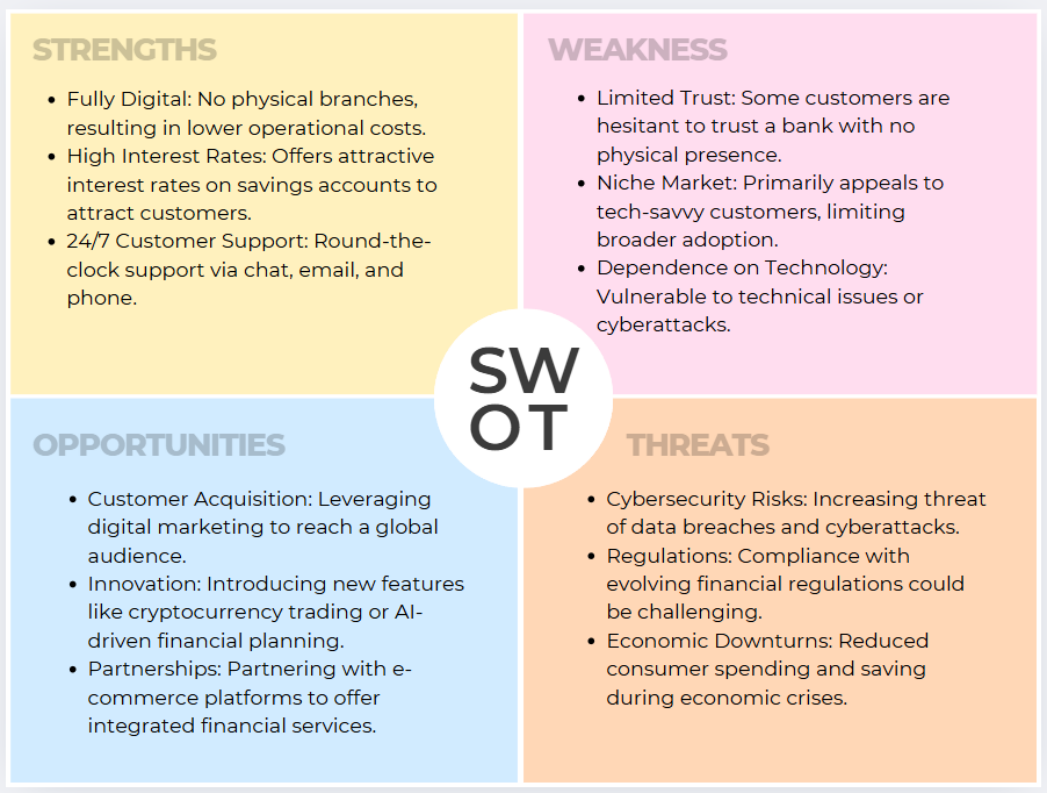
### Competitor 1: Competitor Bank A



## Competitor 2: Fintech Startup B




## Competitor 3: Digital-only Bank C



# Product Vision

"We want to give you a smooth, safe, and easy-to-use mobile banking app that makes managing your money simple, works for everyone, and builds trust. This way, you can reach your financial goals whenever and wherever you need to."

# Product Backlog

Below is the product backlog organized by priority according to the MoSCoW method.

## 1. Must-Have (MVP)

**Functional Requirements**

- **Account Management**
  - View account balance.
  - View transaction history.
- **Transfers**
  - Transfer money between own accounts.
  - Transfer money to accounts in other banks.
  - View transfer history.
- **Payments**
  - Pay credit card bills.
- **Security & Authentication**
  - Secure login (biometric authentication, PIN).
  - Two-factor authentication (2FA).
  - Password reset and account recovery.
- **Performance & Availability**
  - Ensure the app is available 99.9% of the time.
  - Optimize app response time (<2 seconds).

**Non-Functional Requirements**

- **Security**
  - Encrypt all customer data.
- **Accessibility**
  - Ensure the app meets accessibility standards (e.g., for visually impaired users).
- **Cross-Platform Support**
  - Support both iOS and Android devices.
  - Ensure compatibility with smartphones and tablets.

## 2. Should-Have (Post-MVP)

**Functional Requirements**

- **Cash Operations**
  - Deposit cash via ATMs.
  - Withdraw cash via ATMs.
  - Locate nearest ATM.
- **Payments**
  - Pay utility bills (e.g. electricity, water).
  - Pay subscriptions (e.g., Netflix, Spotify).
- **Notifications**
  - Send real-time alerts for transactions, low balances, and security updates.

**Non-Functional Requirements**

- **Scalability**
  - Ensure the app can handle a growing number of users without performance issues.
- **Localization**
  - Support multiple languages and currencies.
- **Offline Mode**
  - Allow limited functionality (e.g., view balance, transaction history) without an internet connection.

## 3. Could-Have (Future Releases)

**Functional Requirements**

- **Investment Features**
  - Allow users to invest in funds or stocks.
  - Provide investment insights and recommendations.
- **Peer-to-Peer Payments**
  - Enable instant money transfers to friends and family.
- **Customer Support**
  - Integrate live chat or chatbot for customer support.

**Non-Functional Requirements**

- **AI Integration**
  - Use AI to provide personalized financial advice.

## 4. Won't-Have (Out of Scope)

- **Cryptocurrency Trading**
  - Support for buying/selling cryptocurrencies.
- **Physical Branch Integration**
  - Features requiring in-branch visits (e.g., loan applications).