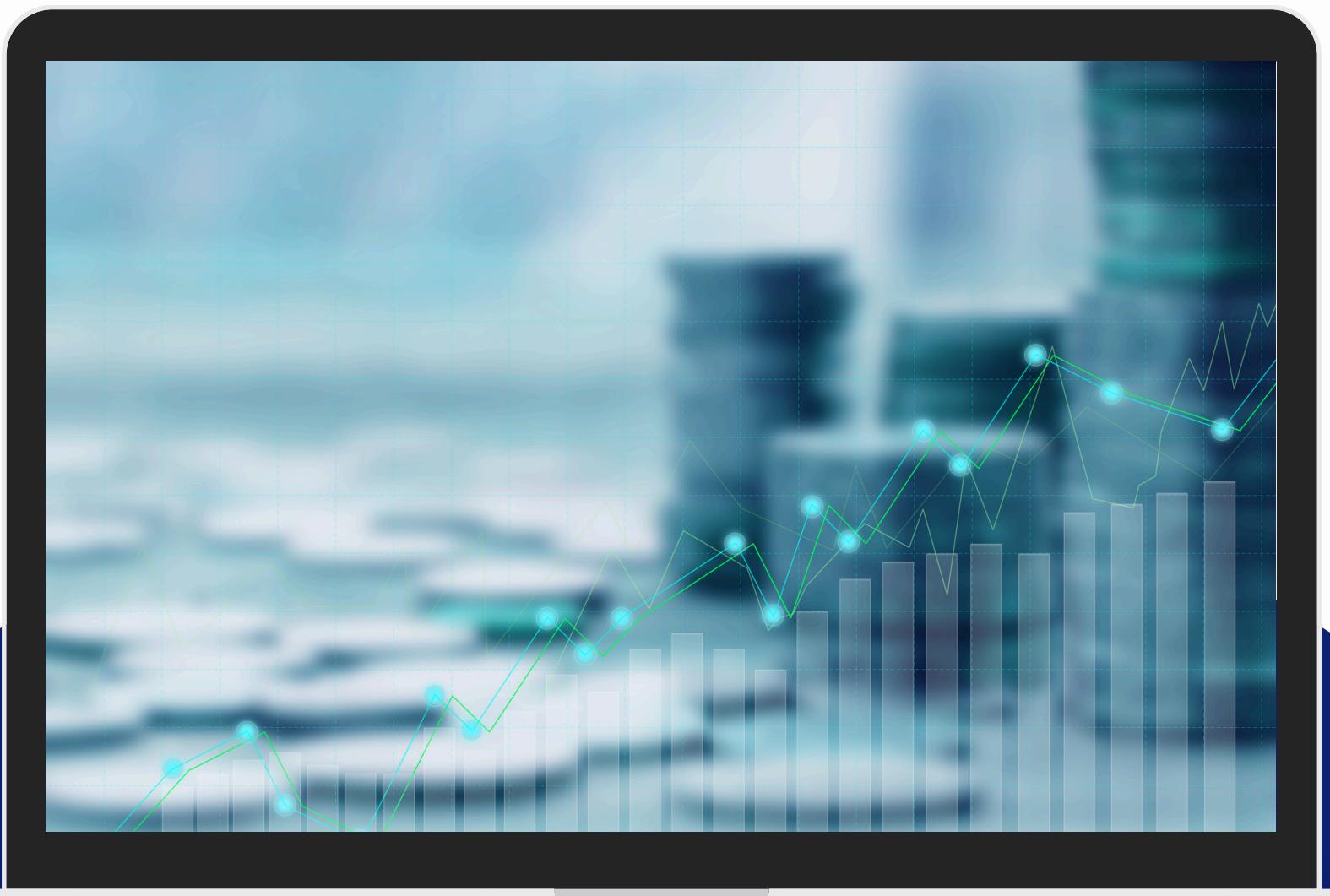




GenAI Financial Literacy Integration

**By: Anisa Hassan, Yahye Hussien, Seylon
Versalles-Shiggs, Khalid Said**



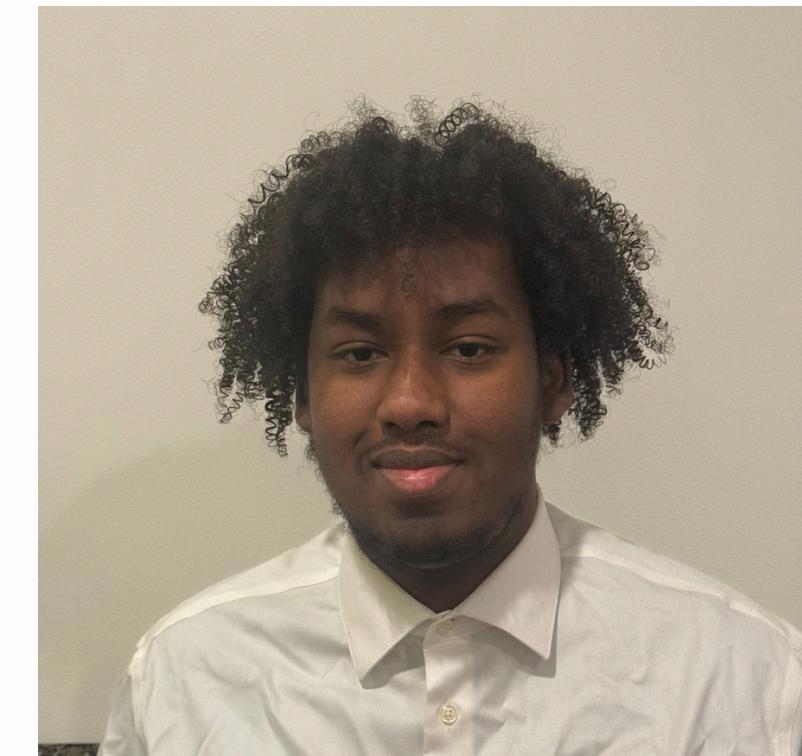
Meet Our Team



Seylon Versalles-Shiggs
Sophomore - MIS Major



Anisa Hassan
Senior - Marketing



Khalid Said
Junior - MIS Major



Yahye Hussien
Senior - MIS Major

Agenda

▶ Team Introduction	02
▶ Project Introduction	04
▶ Current State	05
▶ Future State	09
▶ Recommendations	13
▶ Deployment Plan	19
▶ Cost Analysis	20
▶ Conclusion	21



Executive Summary

Prompt

Develop a strategy to enhance how customer-focused the financial institution is and meet the expectations a customer has of a financial institution through innovative implementations.

Approach

Enhancing Customer Experience at US Bank through a GenAI Dashboard by providing US Bank customers with enhanced knowledge, reinforcing their understanding, and boosting their financial confidence with tailored solutions that fit their specific needs.

Recommendation

An implementation of financial literacy courses into the mobile app made easily accessible through a Generative AI chatbot assistant

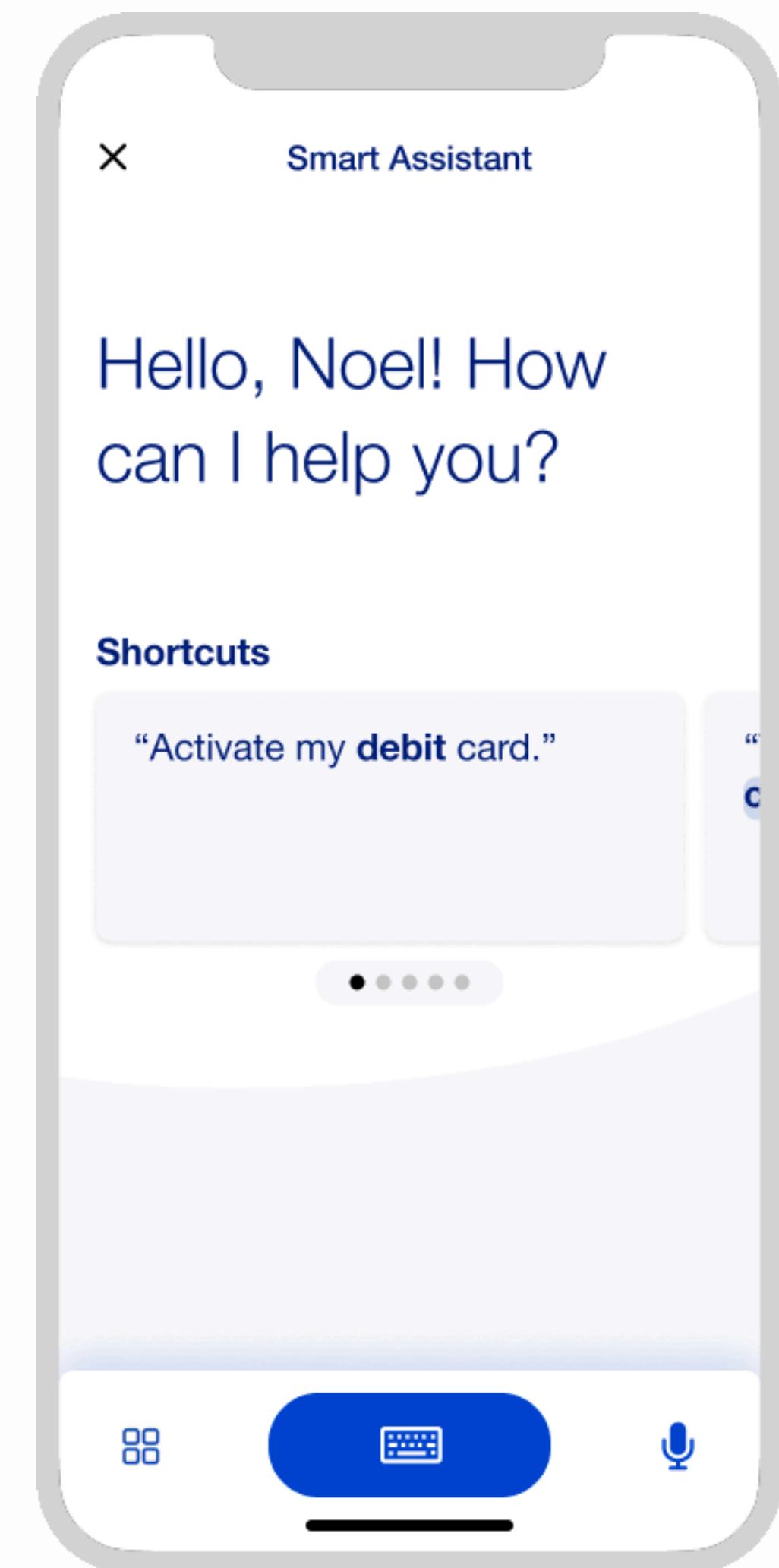
Current State

U.S. Bank is currently in a strong position financially and strategically. They are adapting to the digital banking landscape, expanding their reach, and diversifying their business. However, they face competition in the fintech industry.

Ex: *Smart Assistant*

Company Overview

As a Fortune 500 company headquartered in Minneapolis, Minnesota. U.S. Bank is recognized for its significant presence in the financial industry and its commitment to technological innovation, aiming to enhance customer experiences through digital banking services.



SWOT ANALYSIS



S

Strengths

- Annual earning potential of \$200-340 billion dollars
- Efficiency- will eliminate repetitive tasks
- Provides valuable Financial Literacy Courses
- Diverse range of banking services tailored to the customer's needs,

W

Weaknesses

- Expensive implementation
- Resource-intensive
- AI's data bases can sometimes be somewhat insufficient

O

Opportunities

- Projected to increase customer engagement by 42%
- Personalized recommendations can lead to an enhanced customer service experience and an increased customer satisfaction.
- Digital banking through our AI provides the chance for young Gen Z members to be more involved with their finances.

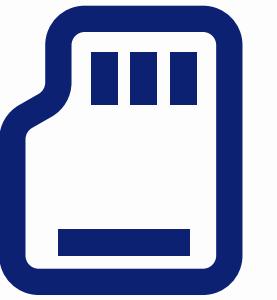
T

Threats

- Data breaches and cyberattacks can compromise AI systems.
- Other banks are also implementing AI in banking which can make the market more competitive.
- Regulatory Challenges

Competitors

Strengths and weaknesses of two competitors in the banking industry that currently incorporate Gen AI



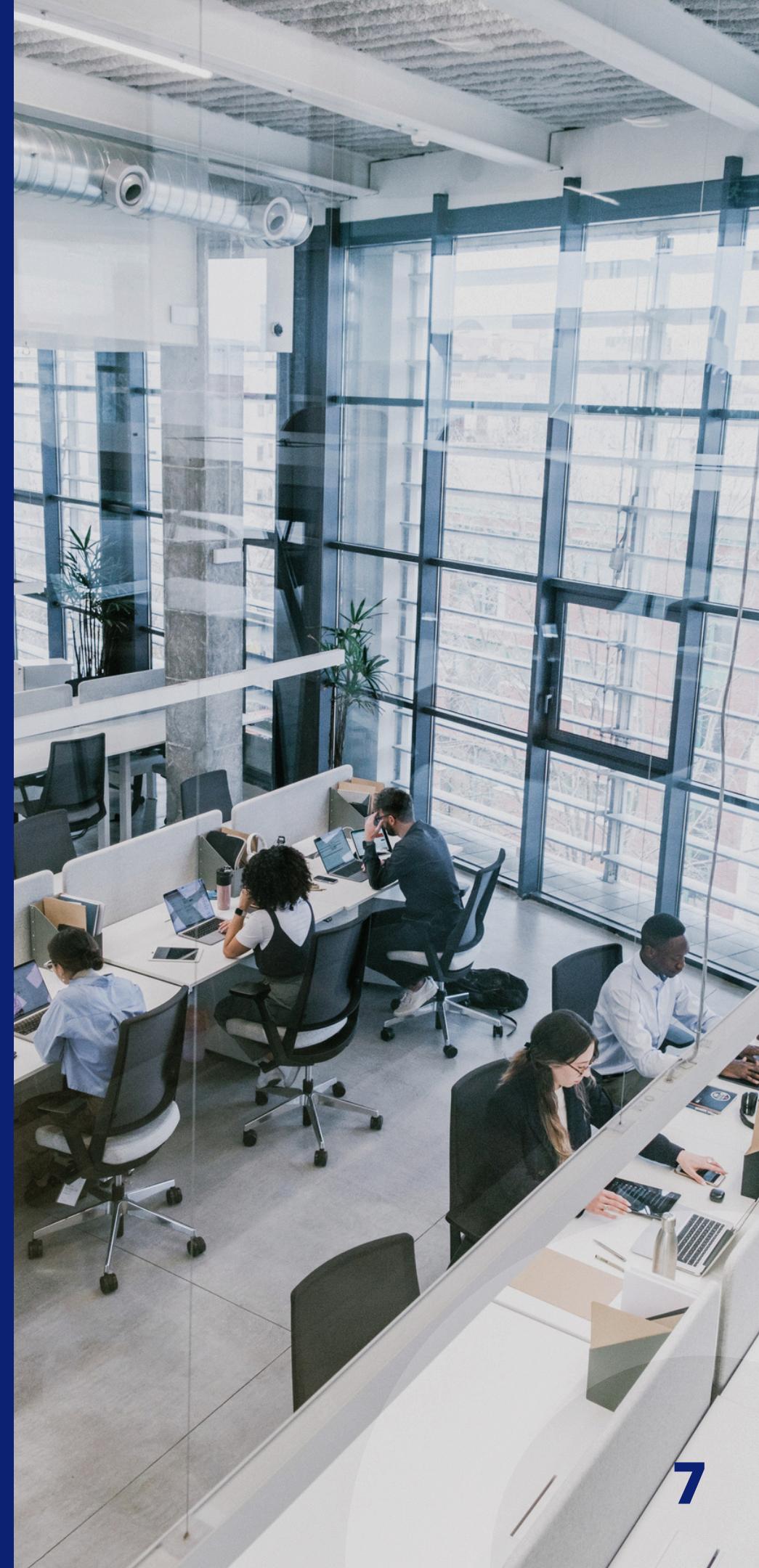
Bank of America

- Erica
- 35% Engagement
- 19% Increase
- Financial Goals



Capital One

- Eno
- Tips on improving credit
- Technological problem



CUSTOMER PROFILE

Meet Nick: Implement GenAI Dashboard



AGE: 22

OCCUPATION: BARISTA

INCOME: \$30,387

**EDUCATION: COLLEGE
STUDENT**

FAMILY: OLDEST SON

Learning Profile

- **Visual and interactive learning experiences**
- **Shorter, more dynamic learning content**
- **Tailored to his individual needs and interests**
- **Skills-based learning**

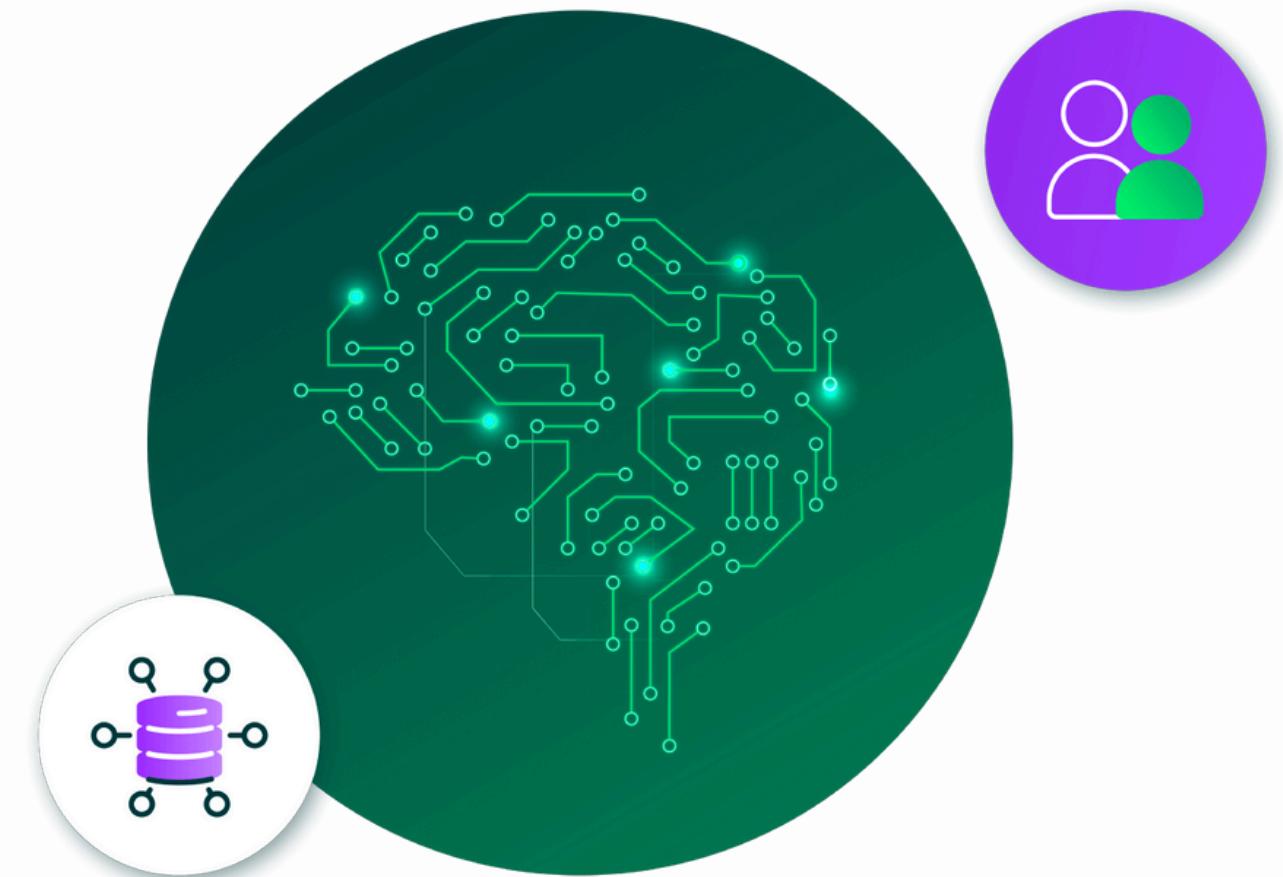
Future State

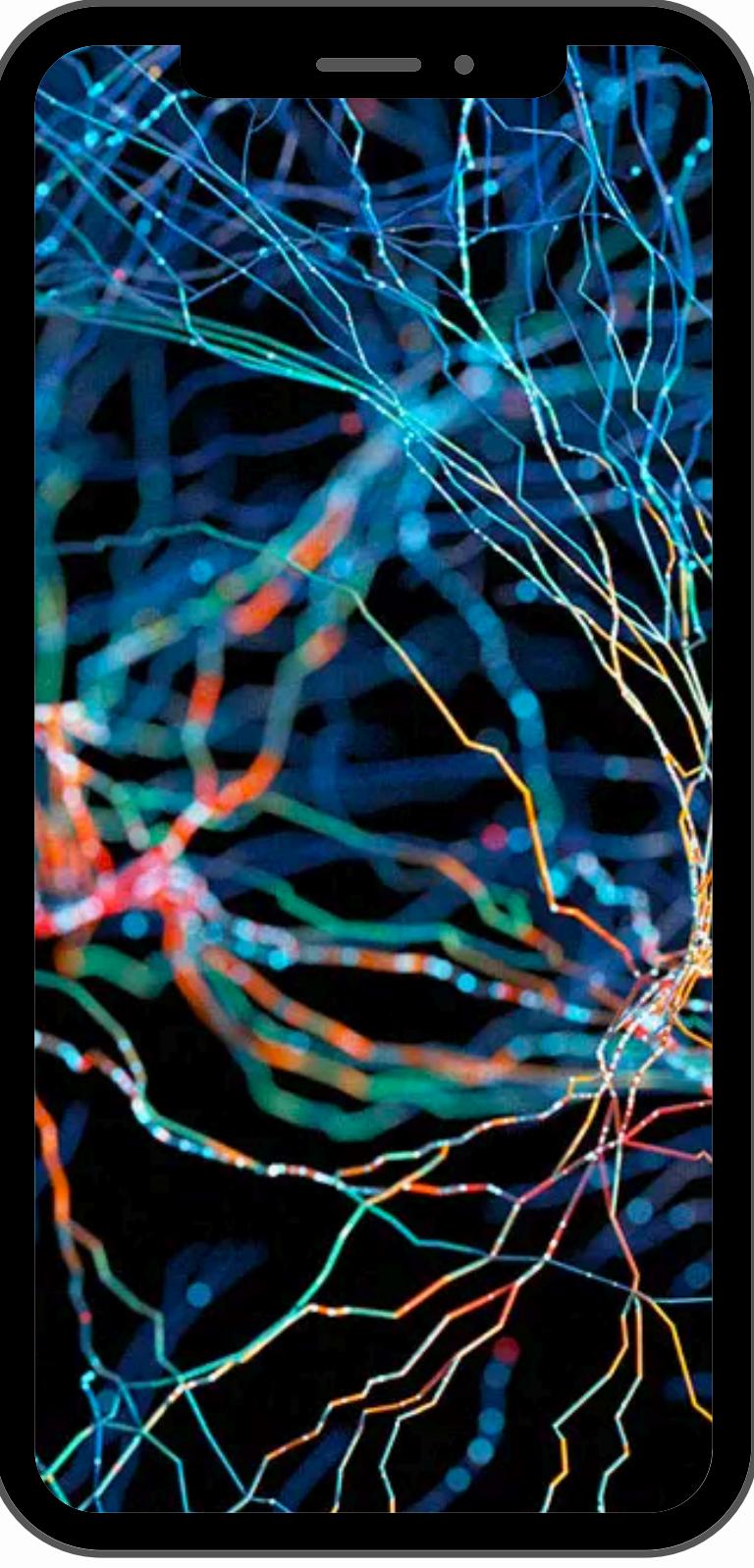
Let us reimagine U.S. Bank's future in the fintech industry

U.S. Bank will be at the forefront of fintech innovation, leveraging cutting-edge technologies like GenAI and advanced learning modules.

This integration is going to revolutionize customer experiences and offer personalized recommendations. This will redefine the landscape of the financial services sector and US bank will be the leaders of tomorrow.

According to a McKinsey article, the banking sector presents one of the largest opportunities for GenAI, with an estimated annual potential ranging from \$200 billion to \$340 billion. This represents 9 to 15 percent of operating profits, showcasing the substantial impact of GenAI in reshaping the banking industry (McKinsey)



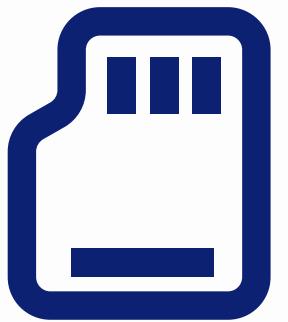


GenAI Dashboard Scope

- **Development GenAI Dashboard**
- **Integration of AI models for personalized financial insights**
- **User-focused design to help engage the interface**
- **Inclusion of educational content to reinforce financial understanding**
- **Include different language settings**
- **Tailoring solutions to fit the specific needs of customers.**
- **Emphasis on data security measures and compliance.**
- **Evaluation of KPIs related to customer engagement.**

Risks

Analyzing potentials risks and challenges that could arise when adopting AI in banking.



Data Security and Privacy

- Customer Information & Privacy Concerns
- Data Misusage or Leakage



Ethical Considerations

- Potential for AI Systems to amplify existing bias
- Used for malicious purposes, such as insider trading or money laundering



Model Accuracy

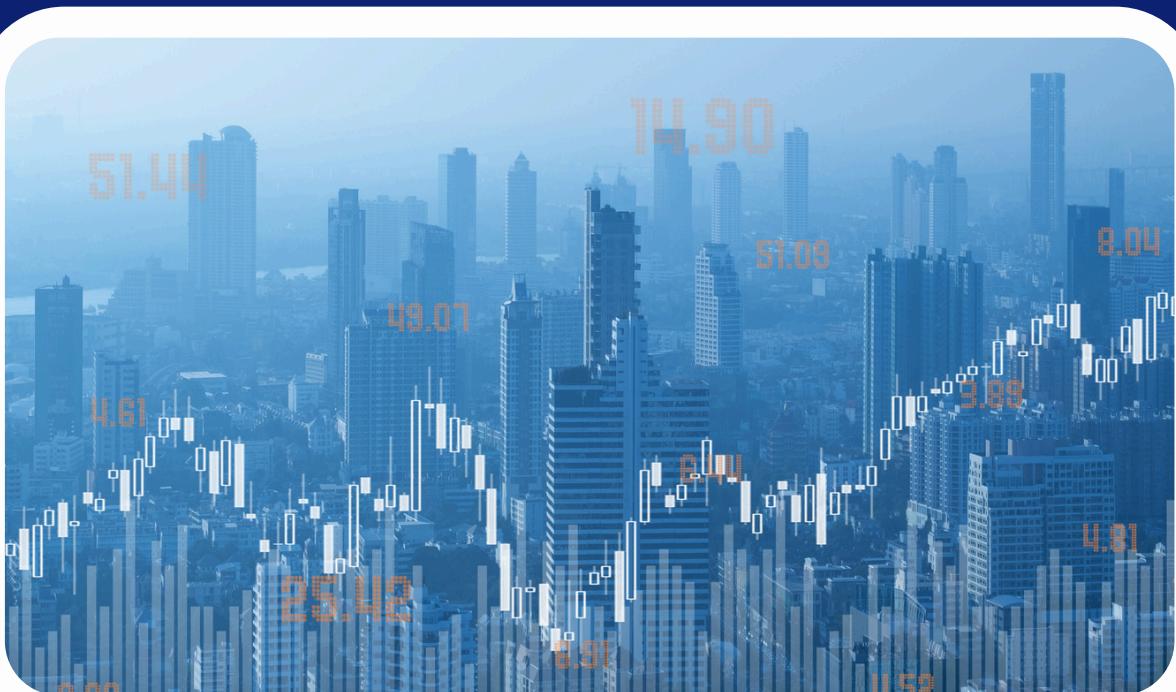
- AI system's outputs are only as good as its inputs
- Misleading or insufficient information for consumers



RECOMMENDATION

**An implementation of financial literacy courses
into the mobile app made easily accessible
through a Generative AI chatbot assistant**

Potential Examples



"How do I start investing?"



"I'm hoping to buy a car in the somewhat near-future, what are ways I can improve my credit score in the meantime?"



"Tuition is \$4,500 next semester, I already have \$2,500 covered, can you help me make a savings plan for the course of the next 5 months so I don't have to take out a loan?"



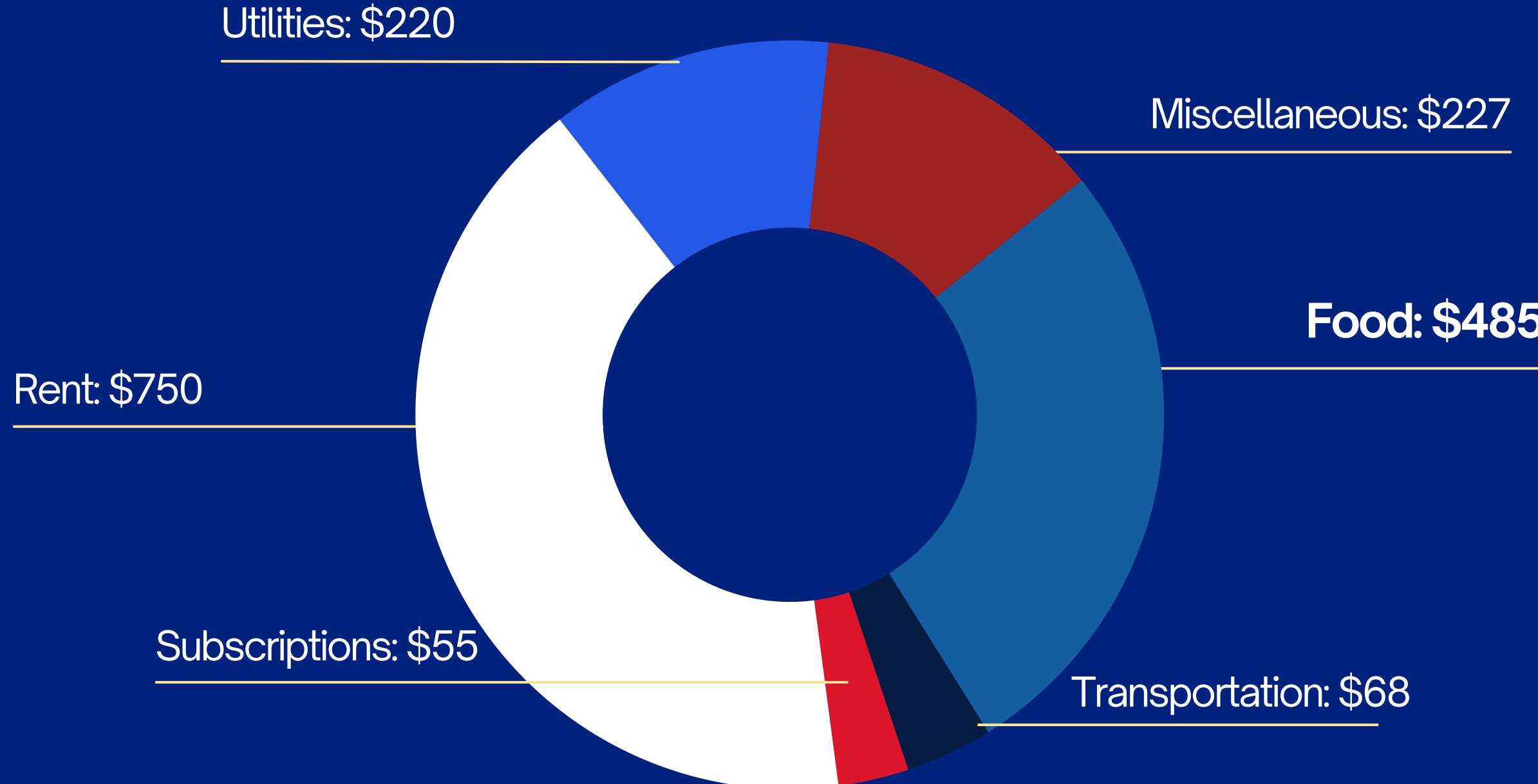
SMART SAVING

With Danielle

Module 1: Setting Savings Goals



Nick's Average Monthly Income: \$2,040



Total Expenses:
\$1,805/month

Remaining Income:
\$235/month

Savings Goal: \$2,000
in 5 months

Savings Plan: \$400/
month

Let's take a look at your current monthly expenses and see how we can better tailor it to your savings goal



Suggestions for Nick

Looking for different recommendations?

Generate New Suggestions

or

Add Limitations

Food Expense

After looking through the transactions labeled in the food category **I noticed that half of your monthly spend on food goes towards eating out.** Eating out tends to be more expensive than preparing meals at home. A single restaurant meal can easily cost as much as a week's worth of groceries. **Committing to eating at home more often is a great way to set aside extra money for your tuition Nick.**

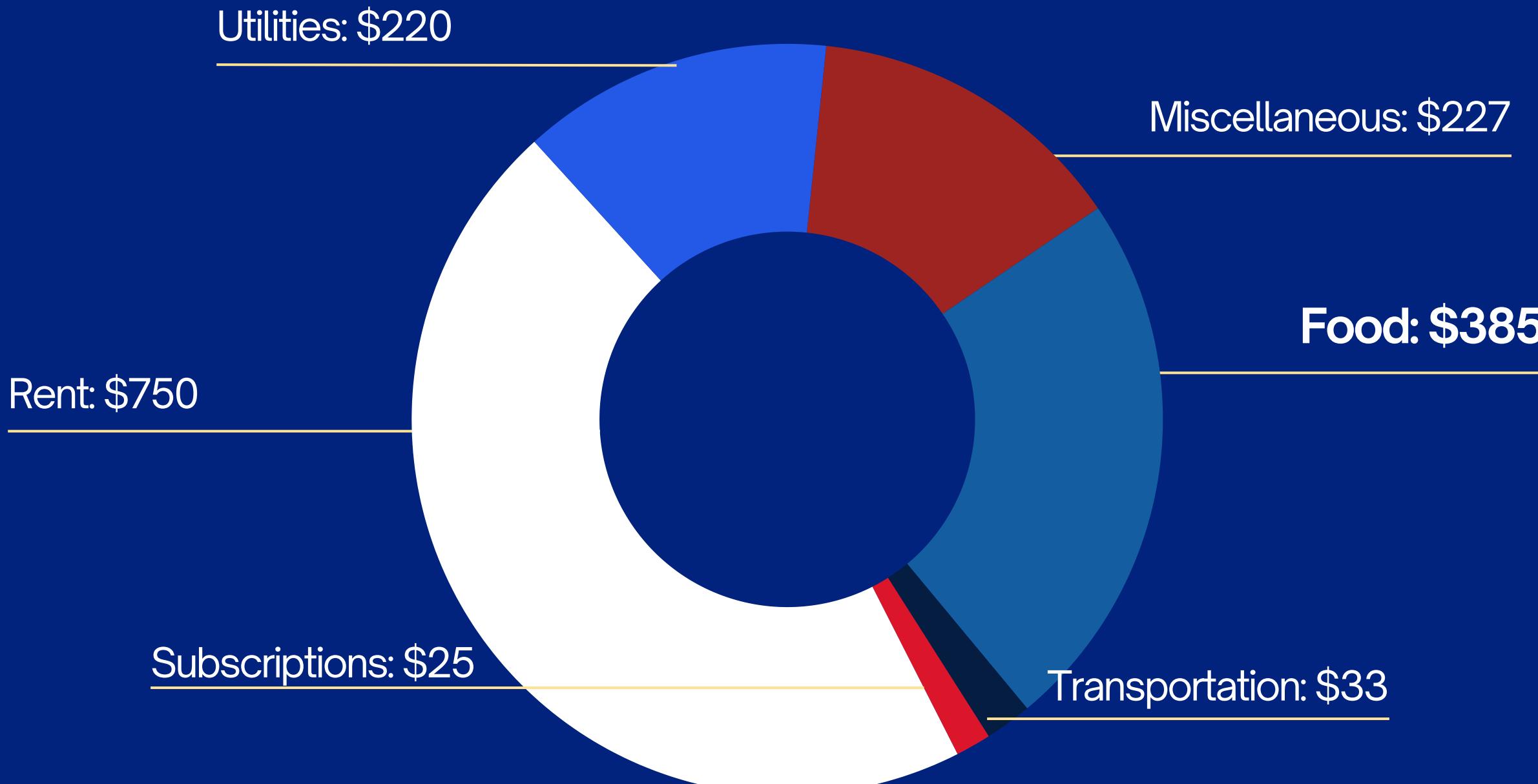
Unused Subscriptions

I noticed that **you are not active** on Hulu, or HBO Max anymore. **Would you like me to cancel them?**

Public Transportation

Public transportation is **frequently considered more cost-effective** than driving due to various factors contributing to economies of scale. Public transit systems **benefit from, large passenger count, lower fuel costs, centralized maintenance, and the absence of parking fees, reducing expenses per passenger.** Most Universities **offer a student discount** for the local metro system, so you might want to **consider looking into that option** as well.

Nick's Average Monthly Income: \$2,040

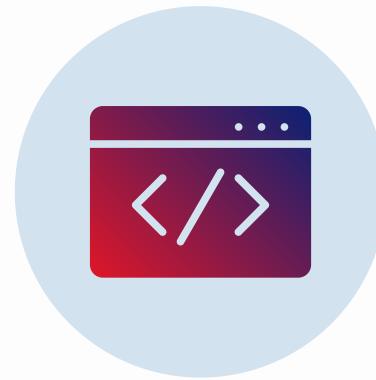


Total Expenses:
\$1,640/month

Remaining Income:
\$400/month

Here's an example of how the previously mentioned adjustments would help you reach your savings goal.

Cost Breakdown



In House Development

Implementing GenAI in-house provides US Bank with the advantage of complete control over customization and data privacy.

\$ 5M to 200M



Vendor

Opting for a vendor approach in GenAI implementation allows US Bank to leverage external expertise and accelerates the deployment process

\$.5M to 20m



Hybrid

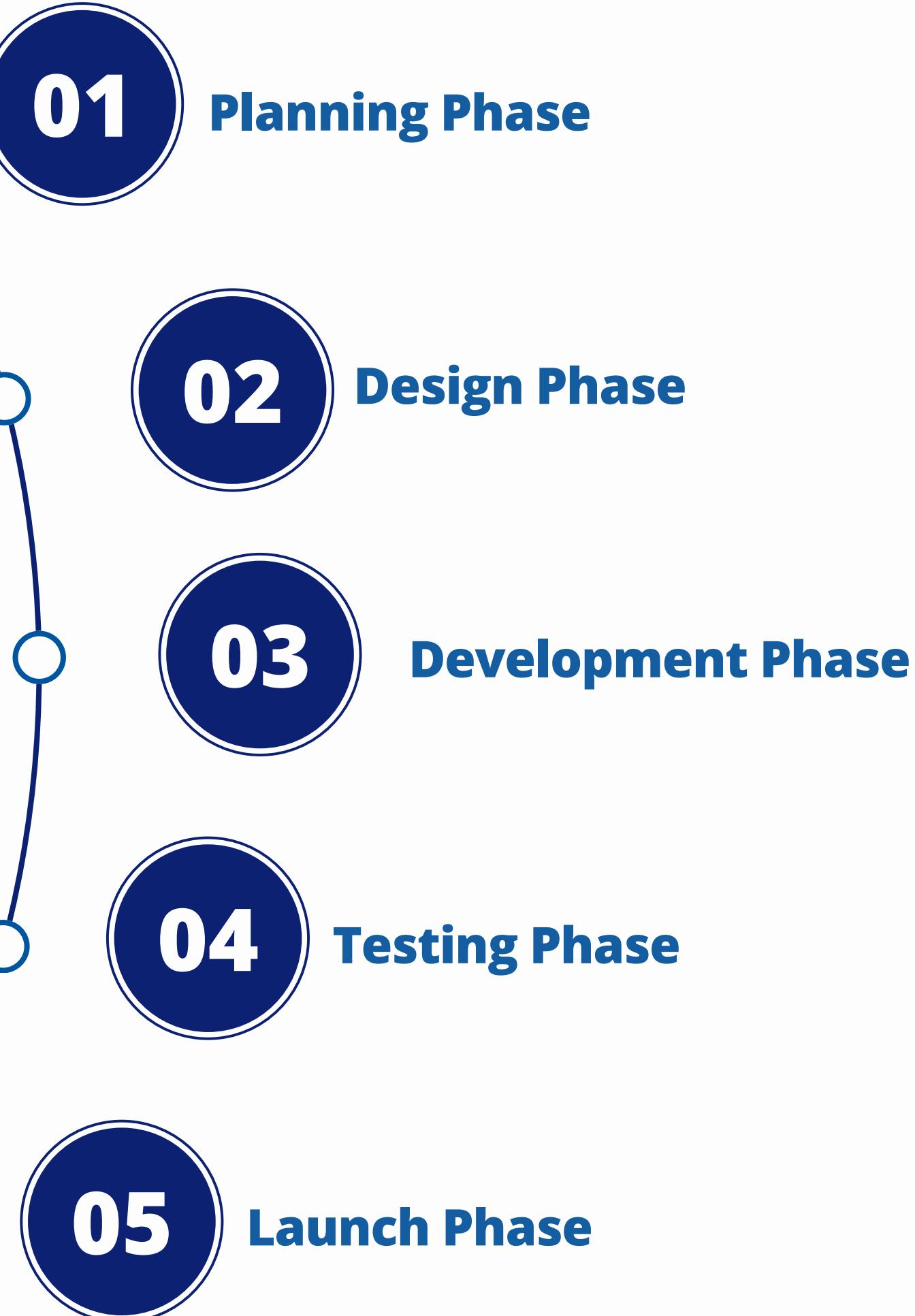
US Bank can benefit from the flexibility and scalability of a hybrid model, allowing for tailored solutions while tapping into external support when needed.

\$ 100M

Deployment Plan

- 9 sections
- 63 courses
- 1,033 modules

30-50 Months



Design Phase

Drafting user interfaces and conducting UX research trials

Key Players: UX/UI Designers, UX Researchers, Information Architects, UX Writer, Program Managers

Duration: 5.5 Months

Results: Final designs of how the software will look and run

\$40k



Development Phase

\$105m

Software development / Training the generative AI assistant

Key Players: Scrum Master, Software Developers, Data Scientists, Data Engineers,

Duration: 9 Months

Results: Software fully developed, AI trained and ready to be tested for errors

Testing Phase

Gather feedback to identify areas for improvement based on pilot test input

Key Players: Software Testers, QA Analysts, Test Managers, Test Engineers, QA Testers, SQA.

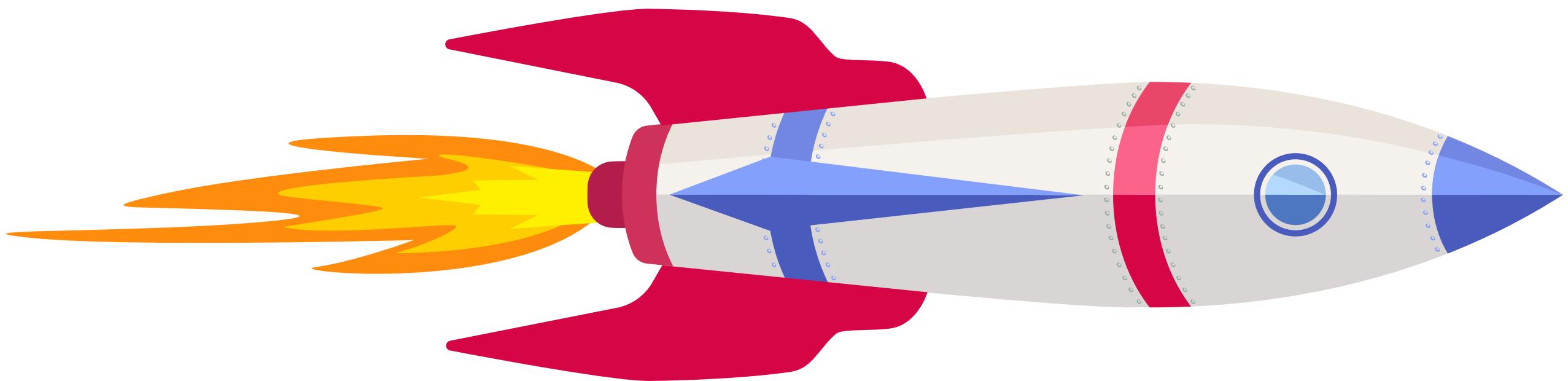
Duration: 2 Months

Results: Testing the software, fixing bugs, and preparing for launch

\$40k 

Launch Phase

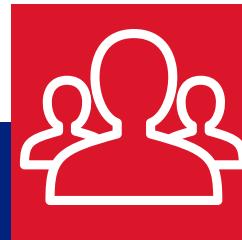
Launch new software, regularly update security, and monitor performance



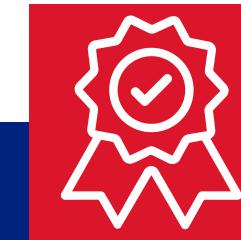
\$20k

***For regular
maintenance**

Conclusion



**Enhanced
Financial
Literacy Access**



**Improved
Customer
Engagement &
Satisfaction**



**Strategic
Investment for
Long-Term Growth**



THANK YOU!
ANY QUESTIONS?



Appendix

Productivity

Generative AI use cases will have different impacts on business functions across industries.

Generative AI productivity impact by business functions¹



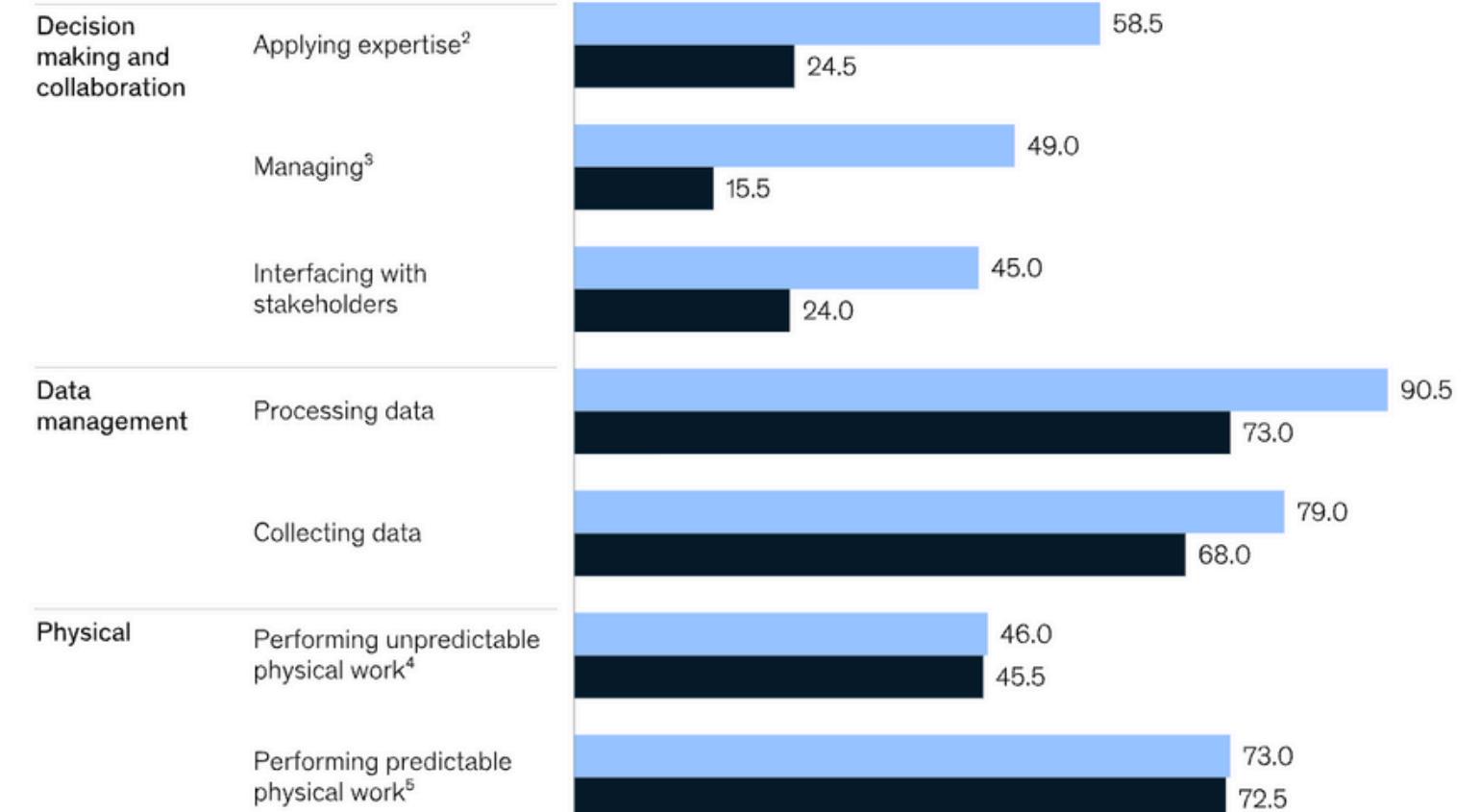
Note: Figures may not sum to 100%, because of rounding. ¹Excludes implementation costs (eg, training, licenses). ²Excluding software engineering.
³Includes aerospace, defense, and auto manufacturing. ⁴Including auto retail.
Source: Comparative Industry Service (CIS), IHS Markit; Oxford Economics; McKinsey Corporate and Business Functions database; McKinsey Manufacturing and Supply Chain 360; McKinsey Sales Navigator; Ignite, a McKinsey database; McKinsey analysis

Generative AI could have the biggest impact on collaboration and the application of expertise, activities that previously had a lower potential for automation.

Overall technical automation potential, comparison in midpoint scenarios, % in 2023

With generative AI
Without generative AI¹

Activity groups



Note: Figures may not sum to 100%, because of rounding.

¹Previous assessment of work automation before the rise of generative AI.

²Applying expertise to decision making, planning, and creative tasks.

³Managing and developing people.

⁴Performing physical activities and operating machinery in unpredictable environments.

⁵Performing physical activities and operating machinery in predictable environments.

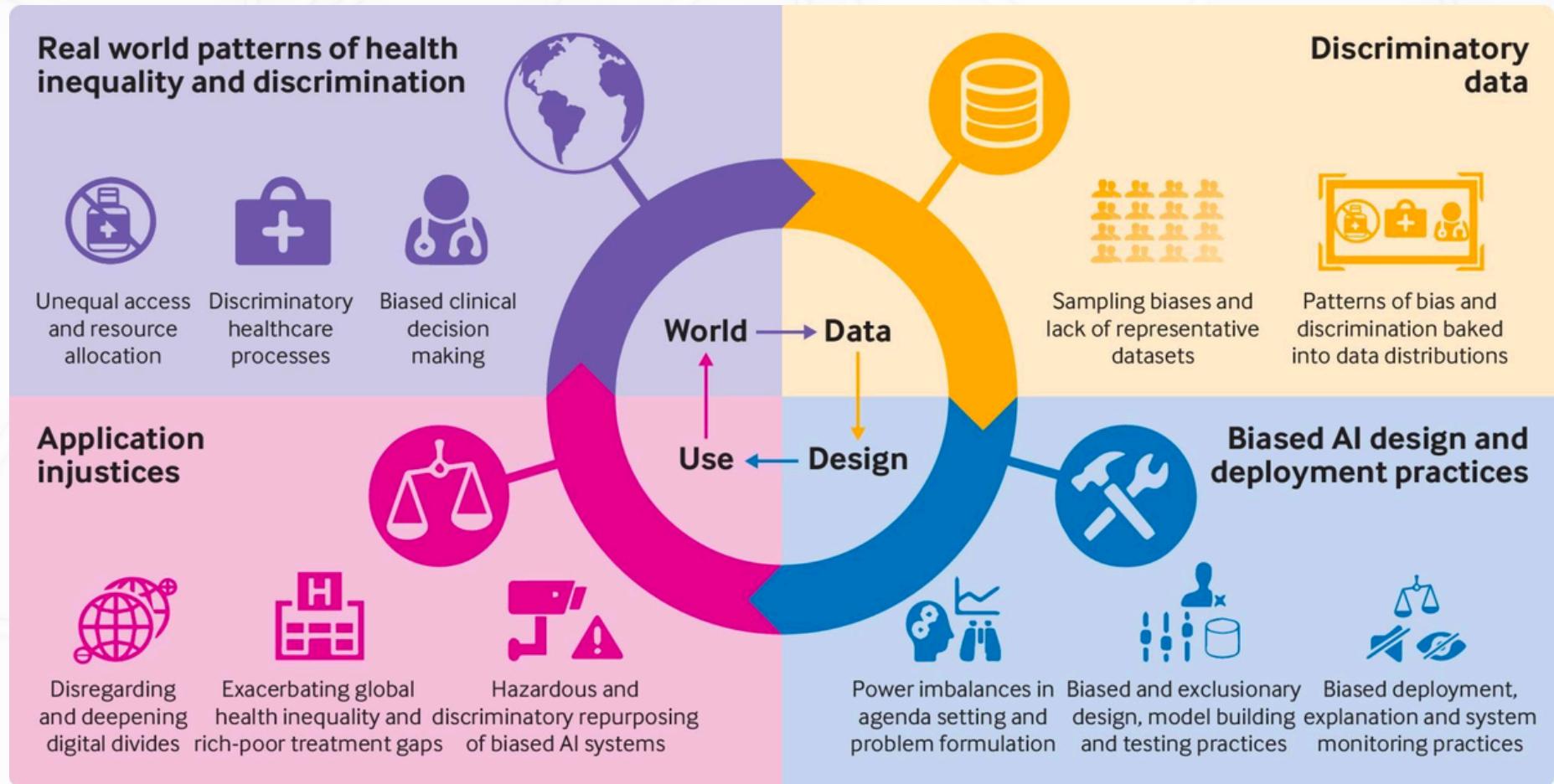
Source: McKinsey Global Institute analysis

Most organizations are using traditional, pre-existing metrics

Appendix

Blas and Discrimination

FINDINGS



- **Establish Responsible Processes:** Organizations can mitigate bias during AI deployment by employing a combination of technical tools and operational practices, including internal “red teams” and third-party audits.
- **Consider Collaborative Approaches:** Implementing “human-in-the-loop” systems allows for human oversight and transparency in algorithmic recommendations to mitigate bias.

Methods: This study synthesizes insights from a variety of sources, including academic research, industry reports, and expert opinions on AI bias and fairness. A comprehensive review of literature pertaining to AI bias and fairness, along with an analysis of practical strategies proposed by leading organizations and researchers, forms the basis of the research findings.

Appendix

Cost Breakdown

Brooke Cost Breakdown		
Items	Duration	Cost
Planning	12 Months	\$ 10,000,000
<i>Market Research and Analysis</i>	6 Months	\$ 5,000,000
<i>Requirement Gathering</i>	6 Months	\$ 5,000,000
Design	5.5 Months	\$ 40,000
<i>Architecture Design</i>	2.5 Months	\$ 10,000
<i>UI/UX Design</i>	3 Months	\$ 30,000
Development	9 Months	\$ 105,000,000
<i>Model Development</i>	6 Months	\$ 31,500,000
<i>Software Development</i>	3 Months	\$ 73,500,000
Testing	2 Months	\$ 40,000
<i>Unit Testing</i>	3 Weeks	\$ 10,000
<i>Integration Testing</i>	2 Weeks	\$ 5,000
<i>Quality Assurance (QA) Testing</i>	5 Weeks	\$ 25,000
Launch	Ongoing	\$ 20,000
<i>User Support</i>	x	\$ 10,000
<i>Maintenance</i>	x	\$ 10,000
Project Name	Total Duration	Total Costs
Brooke Gen AI	28.5 Months	\$ 115,100,000

Appendix

US Bank SWOT Analysis

S

Strengths

- One of the **top 5 wealthiest banks** in America
- Strong **history of excellent customer satisfaction** ratings.
- 3,668 locations
- Boasts a **wide variety of products** from checking to mortgage accounts

W

Weaknesses

- **Low Annual Percentage Yields**
- Only in 26 states
- Lacks an **international presence** compared to other banks.
- **Expensive overdraft fees**

O

Opportunities

- Can **model their in app AI over more successful ones** such as Bank of America.
- **Opening up more branches** across states will **allow for more competition** and will give customers more choices.
- **Digital banking provides the chance** for young Gen Z members to be more involved with their finances.

T

Threats

- **More and more security risks are developed online** which can obtain the information of customers.
- The continued pace of our economy can **lead to fewer customers seeking** U.S. Bank's assistance with mortgages.
- **International banks can affect the U.S.'s ability** to remain competitive in the market.

Appendix

Selection Criteria

01

Scalability

- Handles increasing workloads efficiently
- Can easily expand without disruption

02

User-Friendly Interface

- Easy to navigate and understand
- Allows for personalization and gathers user feedback

03

Security Features

- Implements robust authentication and encryption
- Complies with data protection regulations

04

Integration Capabilities

- Offers well-documented APIs for seamless integration
- Supports standard protocols for compatibility

Appendix

Success Criteria

Increased Customer Engagement

- Achieve 75% of customers actively using the GenAI Dashboard on the US Bank app.

Personalization Effectiveness

- Attain 90% rate of personalized financial insights by tracking the percentage of users who find recommendations relevant

Early Adopter

- Be an early adopter and actively engage with and onboard the GenAI Dashboard within FinTech

Appendix

Requirements

Functional

- User Authentication and Security
- Personalized Financial Insights
- Intuitive User Interface
- Educational Content Integration
- Real-Time Recommendations

Non-Functional

- Compliance with Regulatory Standards
- Feedback and Improvement Mechanism
- Data Analytics for Continuous Improvement
- Compatibility with Existing Banking Services

Appendix

Stakeholder Analysis

Internal

- **Customers**
- **Executive Leadership**
- **IT Department**
- **Marketing**
- **Compliance and Legal Team**

External

- **Customers**
- **Regulators**
- **Competitors**
- **Community**

Appendix

Technological Advancements

Over 98 million users (approximately 37% of the US population) have engaged with a bank's chatbot in 2022. This number is projected to reach a staggering 110.9 million users by 2026.