

Cerebro MVP

Product Requirements Document (PRD)

Summary

¹Company A is set to launch an innovative AI-driven robo-advisor (Cerebro) that integrates budget management with investment advice. This platform leverages advanced AI to provide personalized, actionable insights based on individual financial behaviors and seasonal spending patterns.

This PRD outlines the development of Cerebro designed to seamlessly integrate budget management with personalized investment guidance.

This platform utilizes advanced AI to provide actionable insights based on individual financial behaviors and seasonal spending patterns.

Mission Statement

"Empower individuals to achieve financial wellness through intelligent, personalized investment guidance that adapts to their life's ever changing seasons."

Problem Statement

Many individuals struggle with the complexity of financial planning and lack the tools to make informed investment decisions that align with their lifestyle and financial goals.

The Journey

²Elena, a 28-year-old junior marketing specialist from Seattle, has always been interested in investing but feels intimidated by the complexities of financial planning. Between managing her career and personal commitments, finding time to navigate the financial world seems daunting. When she discovers Company A's new platform, Cerebro, which promises easy integration of budget management with tailored investment advice, she's eager to explore its possibilities.

¹ This document is limited to a single persona and only the 3 month MVP as scope

² To save time given the scope of the challenge, detailed mocks created with tools such as InVision, Figma, or Balsamiq were not included under each step below where they would typically reside.

Step 1: Registration and Secure Login

Elena starts her journey with Cerebro by creating an account. The process is straightforward, and the added security of two-factor authentication gives her confidence that her financial information is well-protected.

Step 2: Budget Allocation Input

After logging in, Elena inputs her weekly budget details. Cerebro's interface is intuitive, allowing her to categorize her expenses for food, subscriptions, utilities, and car payments. Interactive tooltips offer budgeting tips, making the process educational.

Step 3: Investment Potential Analysis

Cerebro quickly processes her budget data and calculates the minimum amount Elena can safely invest, providing a clear explanation of how this figure was determined. This transparency helps Elena trust the accuracy and relevance of the advice.

Step 4: Investment Options Display

With her investable amount identified, Cerebro presents a range of tailored investment portfolios. Each option includes a detailed explanation of the investment strategy, associated risks, and potential returns. Links to educational content are prominently displayed, inviting Elena to learn more about each option.

Step 5: Educational Material Access

Elena takes advantage of the educational resources provided by Cerebro. She watches video tutorials on investment basics and reads articles about risk management, all of which are geared toward her experience level. These resources empower her to make informed decisions.

Step 6: Portfolio Selection and Funding

Feeling informed and confident, Elena selects a portfolio that aligns with her risk tolerance and financial goals. Cerebro offers a simple and secure method for her to fund her investment, which does not require direct bank account linking.

Step 7: Quarterly Budget Review and Portfolio Rebalancing

When it's time for a quarterly review, Cerebro notifies Elena in advance. She updates her budget inputs, and Cerebro automatically adjusts her investment portfolio to reflect her new financial situation. The platform provides a detailed report explaining the adjustments.

Step 8: Additional Funding Opportunities

As her financial situation improves, Elena receives suggestions from Cerebro to increase her investment contributions. The platform provides simulations showing how additional funds could boost her investment growth, complete with historical data and projections.

Happy and Excited about Investing!

Through her interactions with Cerebro, Elena transforms from a novice overwhelmed by investment choices to a confident investor in control of her financial future. She appreciates how Cerebro combines robust security measures, personalized investment advice, and accessible educational resources to guide her every step of the way. Elena becomes a champion of Cerebro, recommending it to friends who are similarly looking for support in navigating their financial journeys.

Persona

The MVP shall target Elena, a 28-year-old junior marketing specialist in Seattle.

Elena is tech-savvy and new to financial planning and is seeking a tool that simplifies managing her finances, educating her on investments while facilitating investing.

Out of Scope Personas

- Sam the high-net-worth CEO seeking advanced, customized investment strategies.
- Jenny the day stock trader looking for real-time stock or forex trading capabilities.
- Any persona not mentioned in this document

Feature Set

Core Feature	Description
User Account Creation	Secure user registration and login process
Budget Allocation Input	Interface for users to input monthly budget data
Investment Analysis Tools	AI algorithms to determine minimum investable amounts.
Portfolio Options Display	Tailored investment options with detailed explanations.
Educational Material Links	Direct access to financial educational content.
Investment Execution	Facility to select and fund investment portfolios.
Quarterly Rebalancing	Automated portfolio adjustments based on updated user inputs.

MVP Feature Set

1. Registration and Login
2. Input of Weekly Budgets
3. AI-driven Investment Analysis
4. Display of Tailored Investment Portfolios
5. Access to Educational Resources
6. Selection and Funding of Investments
7. Quarterly Budget Review and Portfolio Rebalancing

Functional Requirements

Feature	Requirement	Team
User Account Creation	Secure registration and login system	UI/Backend Dev
Budget Input Interface	Form for entering budget data and constraints	UI/Backend Dev
Investment Analysis Tools	AI algorithms for financial suggestions	AI Team
Portfolio Options Display	Display logic based on AI analysis	UI/Backend Dev
Educational Material Links	Resource linking mechanism	Content Team

Investment Execution	Payment processing integration	Backend Dev
Quarterly Rebalancing	Automated rebalancing script	AI Team

Non-Functional Requirements

Requirement	Details	Team
Security	High-level encryption and data protection	Security Team
Scalability	Cloud infrastructure to handle load	Operations
Compliance	Regulatory adherence to financial laws	Compliance Team

Use Case Breakdown

Step in Journey	Use Case	User Story
User Registration and Login	Secure Account Access	As an end user, I want to securely log in or register, so that I can access personalized financial management tools.
Budget Allocation Input	Input Personal Budget	As an end user, I want to easily input and categorize my weekly budget, so that I can manage my finances and prepare for investments.
Investment Potential Analysis	Financial Capability Analysis	As an end user, I want the system to analyze my financial input and determine the minimum amount I can invest, so that I can make informed investment decisions without compromising my budget.

Investment Options Display	Viewing Investment Options	As an end user, I want to view different investment portfolios tailored to my financial situation, so that I can select the best option that aligns with my goals.
Educational Material Access	Access to Learning Resources	As an end user, I want to access educational materials related to my investment choices, so that I can better understand the investment process and make educated decisions.
Portfolio Selection and Funding	Select and Fund Investment	As an end user, I want to select an investment portfolio and see a simple method to fund it, so that I can start investing easily and securely without bank account linking.
Quarterly Budget Review and Portfolio Rebalancing	Financial Review and Adjustment	As an end user, I want to update my budget allocations quarterly, so that the advisor can rebalance my investment portfolio to reflect any changes in my financial situation.
Additional Funding Opportunities	Enhancing Investment Contributions	As an end user, I want to be presented with an option to add more funds to my investment, so that I can increase my investment as my financial situation improves.

Trust Establishment

Step in Journey	Use Case	Trust-Building Actions	Educational Link Actions
User Registration and Login	Secure Account Access	Implement multi-factor authentication and use SSL encryption for data transmission to enhance security.	N/A

Budget Allocation Input	Input Personal Budget	Use real-time validation and feedback to confirm correct data entry, reinforcing reliability.	Provide tooltips and links to articles on budgeting basics.
Investment Potential Analysis	Analyze Financial Capability	Show a breakdown of how the investment amount is calculated, offering transparency in AI decisions.	Link to detailed guides on how AI analyzes financial data.
Investment Options Display	Display Tailored Investment Options	Clearly label each investment option with risk levels and expected outcomes to help users make informed decisions.	Include links to resources explaining different types of investment portfolios.
Educational Material Access	Access to Learning Resources	Highlight the credibility of sources for educational materials, ensuring they are from reputable financial institutions.	Directly integrate educational videos and articles related to displayed investment options.
Portfolio Selection and Funding	Select and Fund Investment	Provide a confirmation screen with detailed information before finalizing investments to ensure user consent.	Demonstrate thought leadership via a blog or video Offer a mini-course or webinar on what to consider before selecting a portfolio.
Quarterly Budget Review and Portfolio Rebalancing	Quarterly Financial Review	Notify users well in advance of upcoming rebalancing and provide a pre-analysis report showing what changes might occur.	Link to a quarterly review guide that helps users understand how and why portfolios are rebalanced.
Additional Funding Opportunities	Enhance Investment Contributions	Show historical performance and projections based on additional funding scenarios to build trust in potential growth.	Provide access to success stories and case studies of similar investment boosts.

Compliance and Regulatory Requirements

Regulatory

- Ensure all necessary financial advisory licenses are acquired.
- Schedule and conduct audits as required by financial regulatory authorities.
- Adhere to GDPR, CCPA, or other relevant data protection regulations.

Third Party Integrations

- Link to external compliance reporting systems required by financial regulators.
- While direct banking links are not part of the MVP, prepare documentation and protocols for future integrations, ensuring they meet regulatory standards.

Reporting

- Set up automated systems to generate and submit transactional reports to regulatory bodies as needed.
- Implement mechanisms to detect and report suspicious activities to combat financial fraud and money laundering.

AI Team Requirements

Category	Details
AI Usage	Predict minimum investable amounts and suggest portfolios
Inputs	User financial data, market data
Trade-offs	Accuracy vs. speed, complexity vs. usability
Data Collection	Secure data
Educational Material Links	Direct access to financial educational content
Investment Execution	Facility to select and fund investment portfolios
Quarterly Rebalancing	Automated portfolio adjustments based on updated user inputs

Stakeholder Activities

Responsibilities

1. **Customer Support** - Assist users efficiently and expediently.
2. **Marketing Team** - Analyze engagement and actively refine campaigns.
3. **Compliance Officers** - Ensure all operations comply with financial laws and ethics.

Go-to-Market Activities

1. **Marketing** - Execute digital and partnership-driven campaigns.
2. **Sales** - Prepare recorded demos and pitches for potential customers.
3. **Customer Support** - Establish support channels, actively contribute to feedback loops and attend product training.

Operational Support Enablement

1. **Training** - Establish sessions for all internal teams.
2. **Support Infrastructure** - Configure and enable systems to handle user inquiries and feedback.
3. **Monitoring and Reporting** - Establish tools to track performance and user satisfaction.
4. **Documentation** - Ensure all features and processes are well-documented and updated.
5. **Feedback Loop** - In conjunction with the product and strategy teams ensure all feedback through support and operations is clearly documented and flows effectively

Additional Considerations

Enhancing Trust in the User Journey

Features

Feature	Description
Transparent Onboarding	Clearly explain data usage policies and security measures during account creation.

Secure Login	Implement two-factor authentication and use SSL certificates to secure data transmission.
Real-Time Notifications	Send alerts for account activities, such as login attempts and transactions, to reassure users of constant monitoring.
Clear Investment Rationale	For each portfolio option, provide detailed, easy-to-understand rationales behind investment suggestions.
Regular Financial Summaries	Send monthly or quarterly financial summaries detailing account performance, including gains, losses, and suggestions for improvement.

Educational Resources

Educational Feature	Description
Investment Guides	Provide user-friendly guides that explain basic investment concepts, types of investments, and risk management.
Video Tutorials	Offer short video tutorials on how to use the platform, make investments, and understand market trends.
Webinars	Host regular webinars with financial experts who discuss market conditions, investment strategies, and answer user questions live.
FAQ Section	Develop a comprehensive FAQ section that addresses common queries and concerns about investing and platform use.

Staffing & Planning Considerations

Plan (3 Months)

Month 1	Month 2	Month 3
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<ul style="list-style-type: none"> ● Setup ● Basic functionality development ● Model development 	<ul style="list-style-type: none"> ● Core feature development ● Model Training ● Integration of user feedback 	<ul style="list-style-type: none"> ● Testing ● Final adjustments ● Launch preparation
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Key Milestones

- Week 1-2** Team onboarding and initial project kickoff.
- Week 3-6** Development of core functionalities and integration of AI components (model training and development begins)
- Week 7-8** Initial internal testing and feedback collection.
- Week 9-10** Implementation of user feedback and system refinements.
- Week 11** Final testing including security and compliance checks. (Model training and development ends)
- Week 12** Launch preparation and go-live.

Team Composition

Role	Responsibilities	# staffed
Senior Developers & Architects	<ul style="list-style-type: none"> ● Oversee project architecture ● Lead development efforts ● Ensure best practices ● Mentor junior developers ● Involved in critical areas like AI, DevOps, and system integration 	3
UI/UX Developers	<ul style="list-style-type: none"> ● Design and implement the user interface ● Ensure user experience is intuitive ● Handle frontend coding 	4
AI Data Scientists and Developers	<ul style="list-style-type: none"> ● Develop AI algorithms ● Manage data processing ● Ensure the AI functionalities align with financial advising requirements 	3
Backend Developers	<ul style="list-style-type: none"> ● Handle server-side logic ● Database management ● API development ● Integration of backend services 	4

DevOps Engineers	<ul style="list-style-type: none"> • Manage CI/CD pipelines • Oversee deployment, ensure system reliability • Handle cloud infrastructure 	2
UX/QA/Test Engineers	<ul style="list-style-type: none"> • Test software functionality • Handle automated and manual testing • Ensure product quality before release 	4

Key Performance Indicators

Owner	KPI	Description	Complexity of Execution
AI Team	Model Accuracy	Track the accuracy of financial predictions and recommendations.	Medium
	User Adoption of AI Suggestions	Measure the percentage of users following through on AI recommendations.	Medium
	Feedback on AI Performance	Collect and analyze user feedback specifically related to AI functionalities.	Medium
UI/UX Team	User Engagement	Track metrics such as session duration and page views per session.	Small
	Interface Usability Scores	Gather user feedback on the ease of use of the platform interface.	Small
Backend Development Team	System Uptime	Monitor the percentage of time the system is operational without downtime.	Medium

	Response Time	Measure the time taken for the system to respond to user requests.	Medium
DevOps Team	Deployment Frequency	The frequency at which new updates and features are successfully deployed.	Medium
	Recovery Time	The speed at which the system recovers from potential failures.	Medium
Customer Support Team	Resolution Time	Average time taken to resolve user issues.	Small
	Customer Satisfaction Score	User satisfaction with the support received.	Small
Compliance Team	Audit Compliance	Number of compliance issues identified and resolved.	Large
	Regulatory Submission Timeliness	Percentage of compliance reports submitted on time.	Large

Key Assumptions

Assumption	Justification	Impact
Adequate budget, staffing and time allocated for AI development	Based on initial financial planning , feature requirement swag and resource allocation.	Ensures AI features are robust and effective and can be developed and trained within the very short time frame required.
The MVP is the bare minimum set of features for	Need to establish the foundation for future market expansion and	Engineering teams may be overworked and stretched too thin due to

market entry that validated the business hypothesis	product development while minimizing risk.	tight deadlines and initial constant pivots as learning occurs.
User familiarity with digital financial tools	Target persona analysis indicates a high comfort level with technology.	Smoother user adoption and reduced need for basic training.
Regulatory approval within project timeline	Preliminary consultations indicate current features meet compliance standards.	Avoids launch delays and legal complications.
Market readiness for AI-driven solutions	Market research shows a growing acceptance and demand for AI in financial services.	Facilitates quicker market penetration and user base growth.