Business Requirements Document: AI Financial Analyst

Version: 1.0
Status: Final for Sign-off
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Prepared For: Project Stakeholders
Prepared By: [Your Name/TPM Name - acting as your AI TPM]

1. Introduction

- **Product:** AI Financial Analyst
- **Version:** 1.0 (Minimum Viable Product - MVP)
- **Purpose:** This SaaS application provides investors and financial analysts with a tool to rapidly analyze, summarize, and extract key insights from financial documents. Version 1.0 focuses on core functionality to save significant user time and enhance decision-making.
- **Goal:** To be the initial, essential tool for quick, AI-driven analysis of uploaded financial reports.

2. Goals and Objectives

- **Primary Goal:** Deliver a product that substantially reduces time and effort for financial document review and initial data extraction.
- **Objectives for Version 1.0:**
  - Enable users to upload and process key financial document types (initially 10-K, 10-Q).
  - Provide AI-generated summaries that capture the essence of the documents.
  - Extract a standardized set of critical financial figures accurately.
  - Allow users to ask clarifying questions about document content.
  - Achieve high user satisfaction regarding time saved and insight quality.
  - Establish a foundation for future product enhancements.

3. Target Audience & User Personas

- **Primary User: The Financial Analyst (e.g., Equity Research, Credit Analyst)**
  - **Needs:** Quick assimilation of information from lengthy reports; extraction of key financial data for models; identification of significant trends or statements; ability to probe for specific details.
  - **Pain Points:** Information overload; manual data entry from PDFs; time pressure; risk of missing critical details.
  - **How V1.0 Helps:** Reduces document review time; provides quick summaries and key figures; allows targeted questioning.
- **Secondary User: The Informed Individual Investor/Portfolio Manager**
  - **Needs:** Understand company performance without deep accounting expertise; get key takeaways quickly; verify information.

- ○ **Pain Points:** Complexity of financial statements; lack of time for in-depth reading of multiple company reports.
- ○ **How V1.0 Helps:** Offers accessible summaries and highlights key data, enabling faster comprehension.

4. Scope of Work (Version 1.0 - MVP)

This MVP will focus on the following core functionalities:

- **User Account Management:** Secure registration and login.
- **Document Upload & Processing:** Allow users to upload specified financial documents for AI analysis.
- **AI-Powered Summarization:** Generate concise, relevant summaries of uploaded documents.
- **Key Figure Extraction (Standard Set):** Automatically pull a predefined set of essential financial data points.
- **Interactive Question & Answering (Q&A):** Enable users to ask natural language questions about the processed document.
- **Basic Data Export:** Allow users to export summaries and extracted data.
- **Caching of Public Documents:** Implement caching for publicly filed documents and their analyses to improve performance and reduce costs.

Out of Scope for Version 1.0 (Examples for Future Consideration):

- Fully configurable data extraction by users.
- Historical data aggregation and trend analysis across multiple reports.
- Direct comparative analysis between multiple companies' documents within the tool.
- Advanced sentiment analysis or risk scoring beyond what is implicit in summaries.
- Automated data visualization/charting.
- Proactive weekly stock analysis and recommendations based on external data feeds.
- Alerting and monitoring services.
- Highly styled HTML report generation for download.

5. Functional Requirements (Version 1.0)

ID	Category	Requirement	Details	Priority
User Management				
FR-USR-001	User Management	User Registration	Users can create an account using email and password. System sends a verification email.	High
FR-USR-002	User Management	User Login	Registered users can log in with their credentials. Implement basic security (e.g.,	High

			password complexity, lockout after failed attempts).	
FR-USR-003	User Management	Password Recovery	Users can reset their password via a secure email link.	High
FR-USR-004	User Management	User Dashboard	Basic dashboard to view uploaded documents and their status.	Medium
Document Handling				
FR-DOC-001	Document Handling	Document Upload	Users can upload financial documents. Initial support for PDF format.	High
FR-DOC-002	Document Handling	Supported Document Types (Initial)	The system will process SEC 10-K and 10-Q filings.	High
FR-DOC-003	Document Handling	Document Processing Feedback	Users see the status of document processing (e.g., "Uploading," "Processing," "Analysis Complete," "Error").	High
FR-DOC-004	Document Handling	Document Management	Users can view a list of their uploaded documents and delete them.	Medium
AI Analysis & Interaction				
FR-AI-001	AI Analysis & Interaction	Document Summarization	For each processed document, the system generates	High

			a concise summary (e.g., 300-500 words) covering key financial performance, strategic points, and outlook.	
FR-AI-002	AI Analysis & Interaction	Key Figure Extraction	The system extracts a pre-defined set of key financial figures (e.g., Revenue, Net Income, EPS, Operating Cash Flow, Total Debt, Gross Margin %). Extracted figures are displayed clearly. The specific list of figures will be finalized based on common user needs.	High
FR-AI-003	AI Analysis & Interaction	Interactive Q&A	After processing, users can ask natural language questions about the content of the specific document (e.g., "What did the company say about revenue growth in Europe?"). The AI provides answers based on the document content.	High
FR-AI-004	AI Analysis &	Source	Where feasible,	Medium

	Interaction	Referencing (Basic)	answers from Q&A or extracted figures should provide a reference to the approximate location in the document (e.g., page number or section header if reliably extractable).	
Data Export				
FR-EXP-001	Data Export	Export Summaries & Key Figures	Users can export the generated summary and the list of extracted key figures.	High
FR-EXP-002	Data Export	Export Format (Initial)	Export available in plain text (.txt) and Comma Separated Values (.csv) formats.	High
System Operations & Efficiency				
FR-SYS-005	System Operations & Efficiency	Caching of Publicly Filed Documents & Analysis	The system shall implement a caching mechanism for publicly filed documents (e.g., 10-K, 10-Q) and their corresponding AI-generated summaries, extracted key figures, and vector embeddings used for Q&A. This	High

			applies only to documents identified as public filings.	
FR-SYS-005.1	System Operations & Efficiency	Serve Cached Results	When a user requests analysis for a publicly filed document that has already been processed and its analysis is cached, the system shall serve the cached results.	High
FR-SYS-005.2	System Operations & Efficiency	Cache Invalidation/Update	The system must have a strategy for invalidating or updating the cache for a public document if a newer version or amendment of that document is identified or becomes available.	Medium

6. Non-Functional Requirements (Version 1.0)
- **NFR-PER-001 (Performance):**
  - Processing time for an average document (e.g., 150-page 10-K) to complete summarization and key figure extraction: Aim for under 3 minutes.
  - Interactive Q&A response time: Aim for under 10 seconds for typical queries.
- **NFR-ACC-001 (Accuracy):**
  - Key Figure Extraction: Target >95% accuracy for numeric values explicitly stated and clearly labeled in standard financial tables within supported document types.
  - Summarization: Summaries must accurately reflect the primary topics and sentiment of the original document sections.
- **NFR-USA-001 (Usability):**
  - The user interface must be intuitive, requiring minimal instruction for core tasks.
  - The web-based user interface **must be responsive and optimized for a seamless experience on mobile devices (smartphones and tablets) as well as desktop devices from Version 1.0.**

- **NFR-REL-001 (Reliability):**
  - Target system uptime: 99.5%.
  - Robust error handling for document processing failures.
- **NFR-SEC-001 (Security):**
  - Secure user authentication and session management.
  - Protection of uploaded documents and user data against unauthorized access. Data encrypted at rest and in transit.
  - Adherence to relevant data privacy principles.
- **NFR-SCA-001 (Scalability):**
  - The architecture should support an initial load of up to 100 concurrent active users, with the ability to scale.
- **NFR-MAI-001 (Maintainability):**
  - The system should be built using modular components to facilitate updates, bug fixes, and future feature additions.
- **NFR-EFF-001 (Efficiency & Cost Optimization):**
  - The system shall employ caching for frequently accessed public documents and their AI-generated analyses (as defined in FR-SYS-005) to minimize redundant LLM processing and data storage. This optimizes operational costs and improves response times.

7. Technology Stack Assumptions

- **Backend:** Python
- **AI/LLM Orchestration:** LangChain, LangGraph
- **LLMs:** Integration with one or more leading LLMs (e.g., OpenAI GPT series, Anthropic Claude series, or suitable Ollama-compatible models). Model selection will prioritize accuracy, speed, and cost-effectiveness.
- **Data Storage:** Relational database for user data/metadata; Vector database for semantic search/Q&A.
- **User Interface:** Modern web framework (e.g., React, Vue, Angular).

8. Success Metrics (for Version 1.0)

- **Adoption & Engagement:**
  - Number of active registered users (daily/weekly/monthly).
  - Average number of documents processed per active user per week.
  - Feature usage rates (e.g., percentage of processed documents where Q&A is utilized).
  - User retention rate.
- **Performance & Quality:**
  - Average document processing time.
  - User-reported accuracy of summaries and extracted figures (via feedback mechanism).
  - Task completion rates (e.g., successful upload-analyze-export flow).
- **User Satisfaction:**
  - Net Promoter Score (NPS).
  - Customer Satisfaction (CSAT) surveys focusing on ease of use, time saved, and

perceived value of insights.

9. Future Considerations (Post-MVP Roadmap Themes)

- **Enhanced Data Extraction:** User-configurable extraction, more data types.
- **Deeper Analysis:** Historical trend analysis, cross-company comparative analysis, advanced sentiment/risk indicators.
- **Broader Document Support:** Analyst reports, earnings call transcripts, investor presentations, news articles.
- **Integration & Workflow:** API access, integration with other financial tools, alerts.
- **Visualization:** Charts and graphs for extracted data.
- **Proactive Intelligence:** Modules for automated market/stock analysis based on external feeds.

10. Approval

By signing below, you acknowledge that you have reviewed and approved the Business Requirements Document for AI Financial Analyst Version 1.0.

Name	Title	Signature	Date