



CODECELL-CMPN,VESIT

SYRUS HACKATHON 2025

Category Code: C3

Problem Statement Title: SeedLings

Team Name: FireFlow

Institute Name: Vivekanand Education Society's Institute of Technology



Idea / Approach details (& implemented features)

As per report, Study On Financial Problems Faced By New Start-Up:

1. Startups seeking investment often **struggle with credibility and financial validation**.
2. Investors, face challenges in assessing the legitimacy and financial health of startups.

Solution:

1. Dynamic Credibility Score Generator Powered by Uptiq AI
2. Dynamic Trust Score Generator Powered by Uptiq AI
3. Some Additional tools to help out startups
 - a. Debt Optimization
 - b. Loan Assessment
 - c. Document Validation



Innovation (Showstopper)

- 1. Intelligent Startup-Investor Matchmaking Powered by Uptiq AI**
- 2. Investors can schedule zoom calls with their chosen startup**
- 3. AI-Driven Credibility and Trust Scoring to fill the trust gap between startups and investors**
- 4. Documents Validation for startups to identify the hidden false patterns & mistakes**



Uptiq Agent (explain in detail)

AI agents created : *(added to github)*

1. Credibility Score calculation
2. Investor Trust Scoring
3. Debt Equity Optimization with Risk Assessment
4. Loan Assessment Tools

The reports for all these will be stored in Uptiq Tables and will be fetched from it



Dynamic Credibility Score Calculation AI Agent

Why?

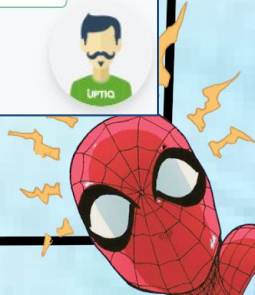
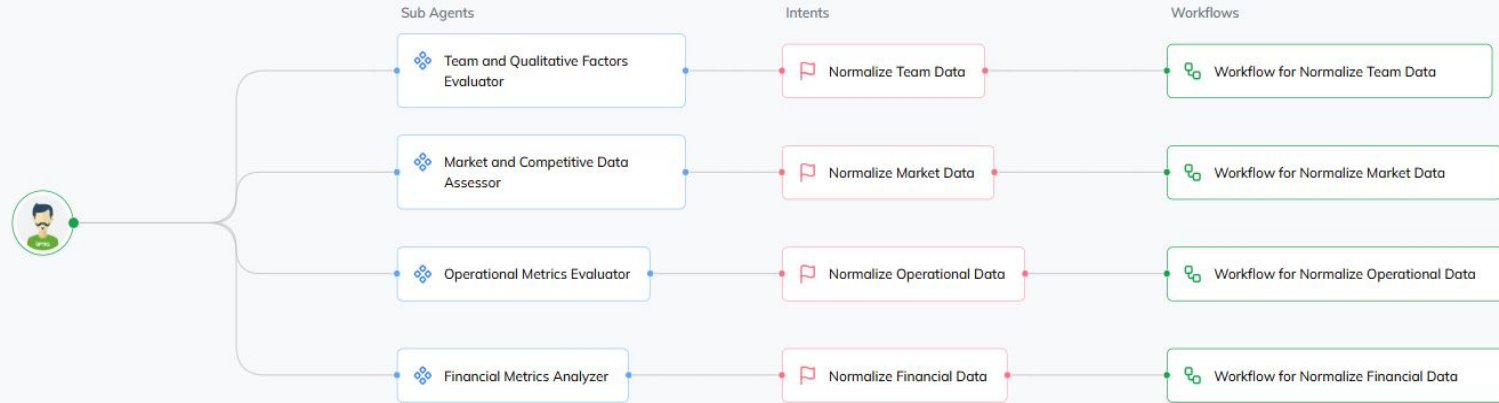
- Startups who don't use credit cards or loan they may not have any CIBIL Score
- CIBIL score represents your creditworthiness based on your past borrowing and repayment history
- Instead of lying on CIBIL Score, we require a metric which will represent creditworthiness of Startup

Dynamic Credibility Score Comes into the picture

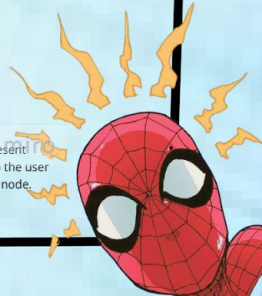
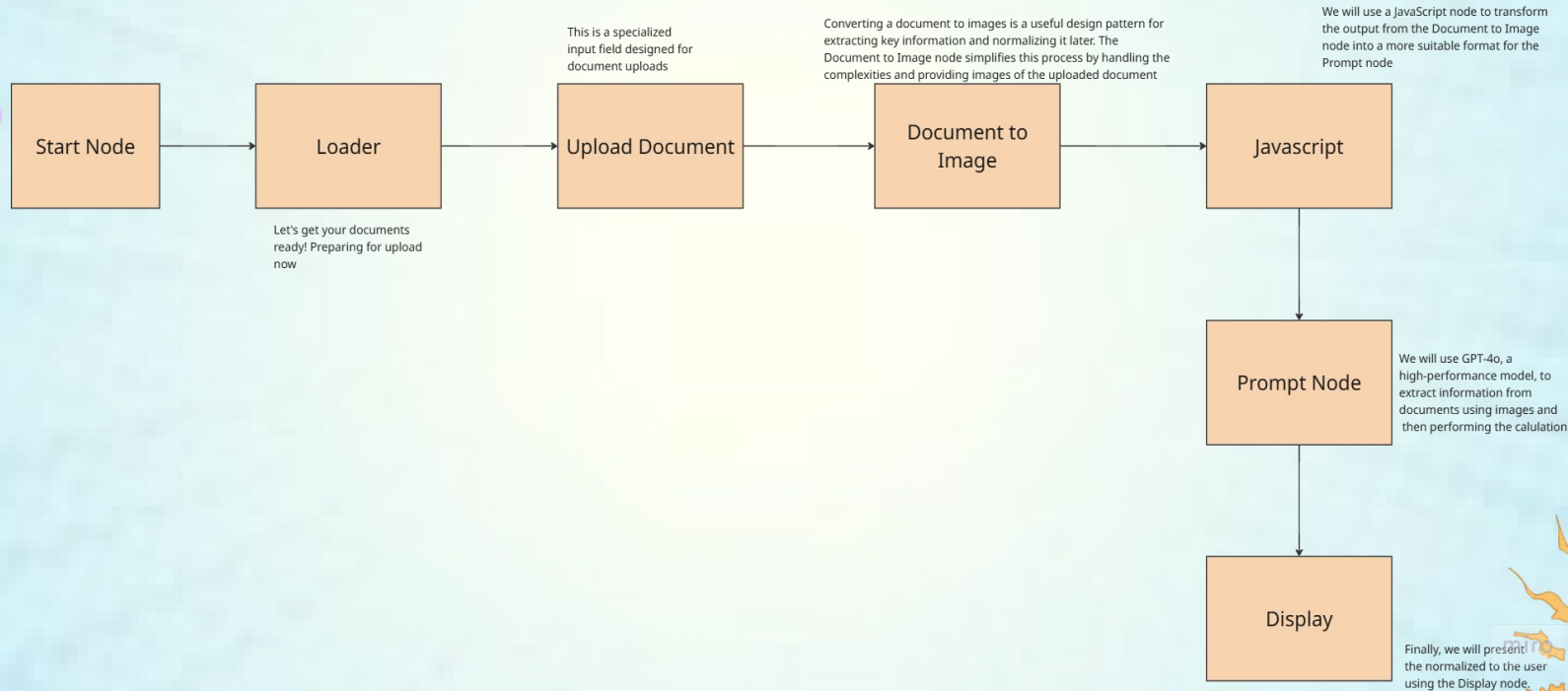
- It takes in consideration the various metrics of company performance
 - Financial Metrics
 - Operational Metrics
 - Market & Competitive Data
 - Team & Qualitative Factors
- Normalize all the values and then find the Score



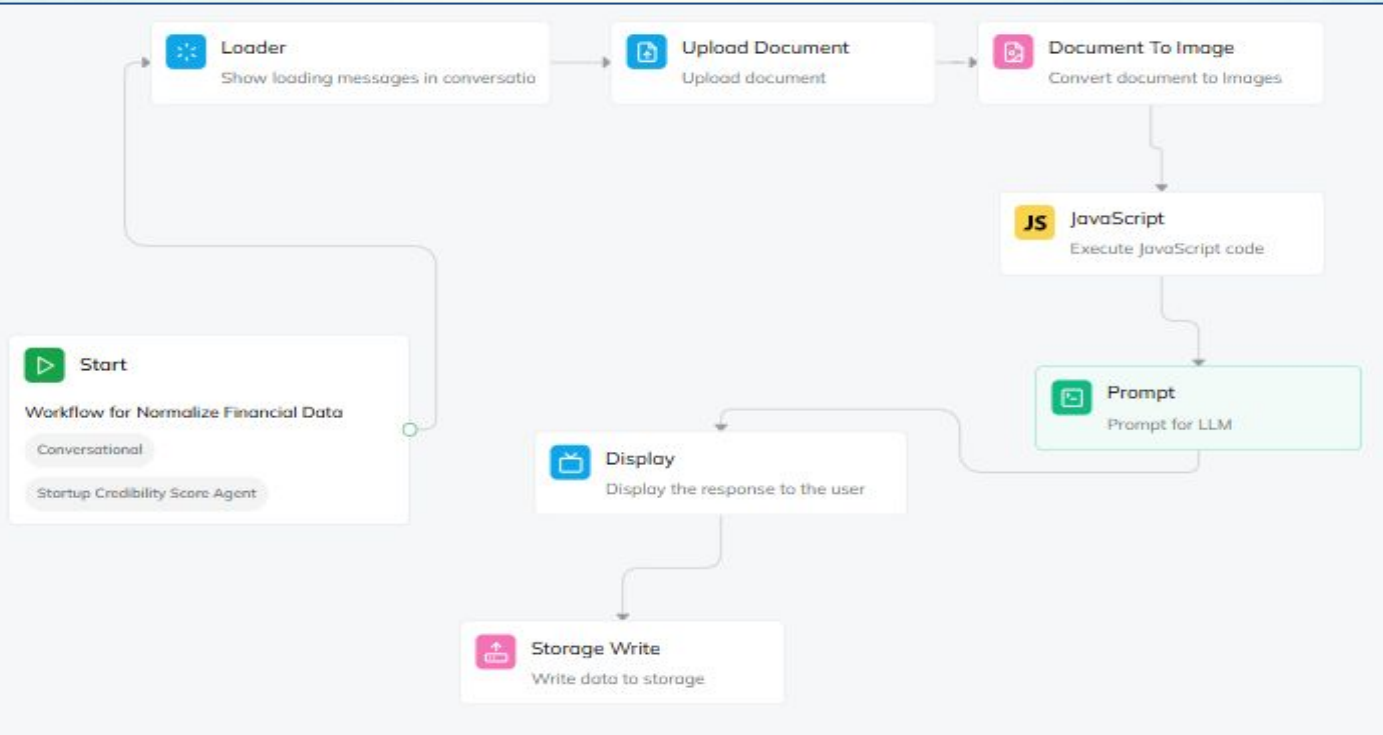
Dynamic Credibility Score Calculation AI Agent Uptiq SS



Dynamic Credibility Score Calculation AI Agent

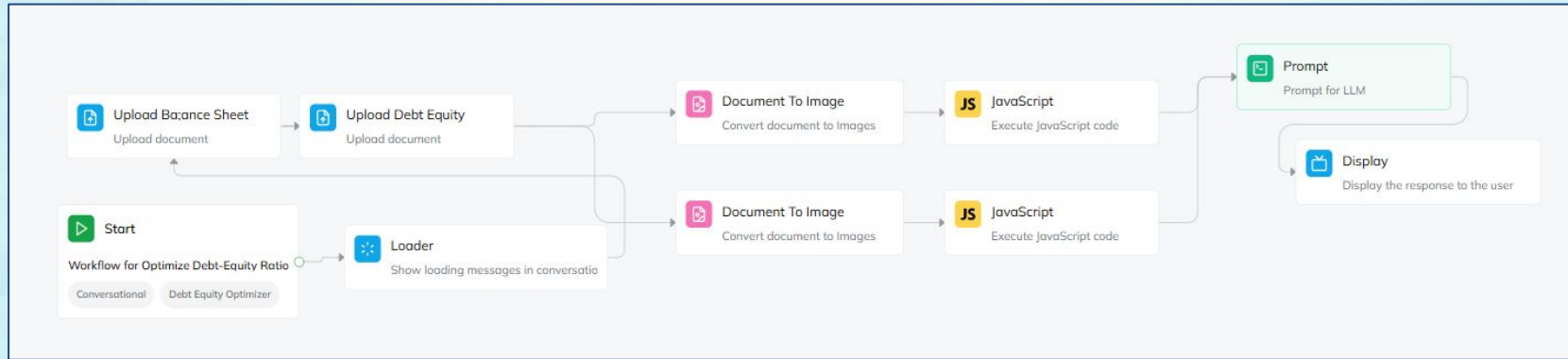


Dynamic Credibility Score Calculation AI Agent Uptiq SS



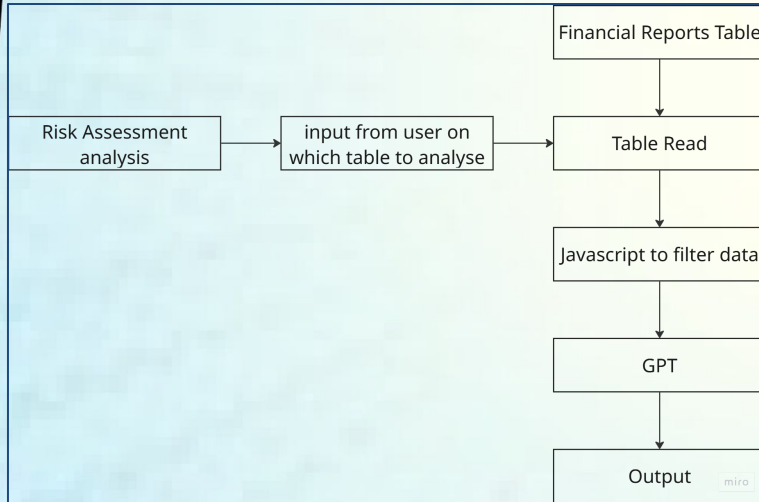
Debt Equity Optimization

Debt Equity Optimization : give optimization based on balance sheet and debt equity report



Risk Assessment

It uses Financial report to assess risk



I want Financial Risk Assessment

cd

Here's a risk assessment based on the provided data:

1. ExampleCorp
 - Debt-to-Equity Ratio: 2.5 (High)
 - Interest Coverage Ratio: 4.0 (Good)
 - Credit Score: 720 (Good)
 - Assessment: Moderate risk due to high debt but offset by good interest coverage and credit score.
2. FinTech Inc
 - Debt-to-Equity Ratio: 2.0 (High)
 - Interest Coverage Ratio: 3.75 (Good)
 - Credit Score: 650 (Moderate)
 - Assessment: Higher risk due to lower credit score and high debt.
3. AutoMotive Ltd
 - Debt-to-Equity Ratio: 1.6 (Moderate)
 - Interest Coverage Ratio: 2.57 (Moderate)
 - Credit Score: 580 (Poor)
 - Assessment: High risk due to low credit score and moderate interest coverage.
4. RetailWorks
 - Debt-to-Equity Ratio: 1.2 (Moderate)
 - Interest Coverage Ratio: 4.0 (Good)
 - Credit Score: 700 (Good)
 - Assessment: Lower risk compared to others, supported by good credit score and interest coverage.

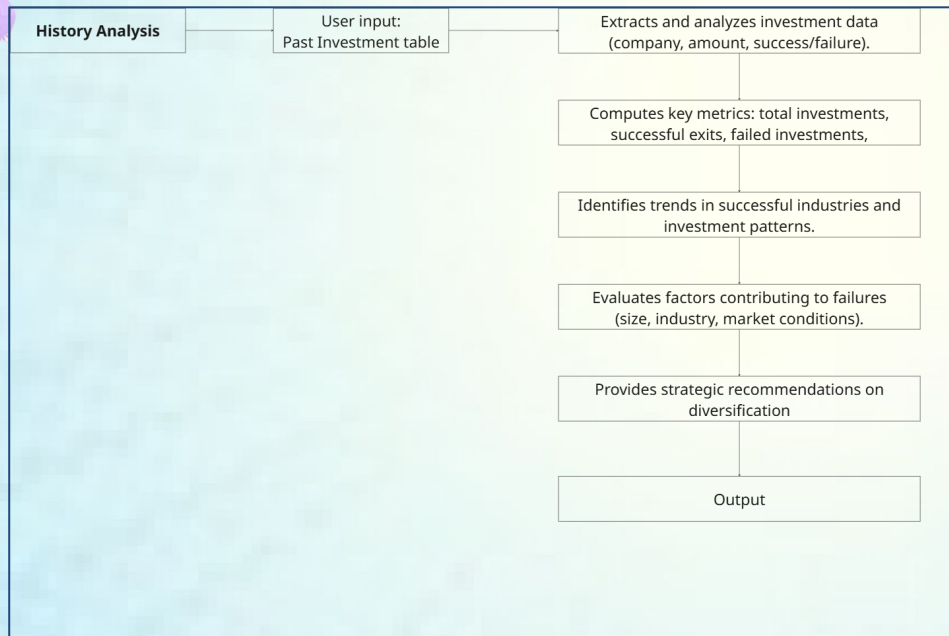
Overall Risk Assessment:

- ExampleCorp: Moderate risk
- FinTech Inc: Higher risk
- AutoMotive Ltd: High risk
- RetailWorks: Lower risk

Investors should consider industry trends, potential economic factors, and individual investment goals alongside these assessments.

History Assessment

History Analysis



i want to use Evaluate Investment History 08

Investment Analysis

1. Investment Summary:

- Total number of investments made: 10
- Total successful exits: 6
- Total failed investments: 4
- Total amount invested across all companies: ₹78,00,000
- Success rate (%): $(6 / 10) * 100 = 60\%$

Insights Based on Historical Data

- Industry Success
 - The investor has been more successful in technology-related sectors (e.g., AlphaTech, GammaAI, KappaBlockchain) and education (EpsilonEdu).
- High Return Startups:
 - Startups in technology and innovation (AlphaTech, GammaAI, KappaBlockchain) have yielded the highest returns, indicated by their successful status despite varying investment amounts.
- Factors Contributing to Failures:
 - Investment Size: Larger investments (e.g., ThetaLogistics at ₹11,00,000) have resulted in failures, suggesting that higher capital does not guarantee success.
 - Market Conditions: The failure of BetaHealth and ZetaFood may indicate adverse market conditions or sector-specific challenges.
 - Industry Type: Non-tech sectors (e.g., health, food) appear to have a higher failure rate in this dataset.

Recommendations

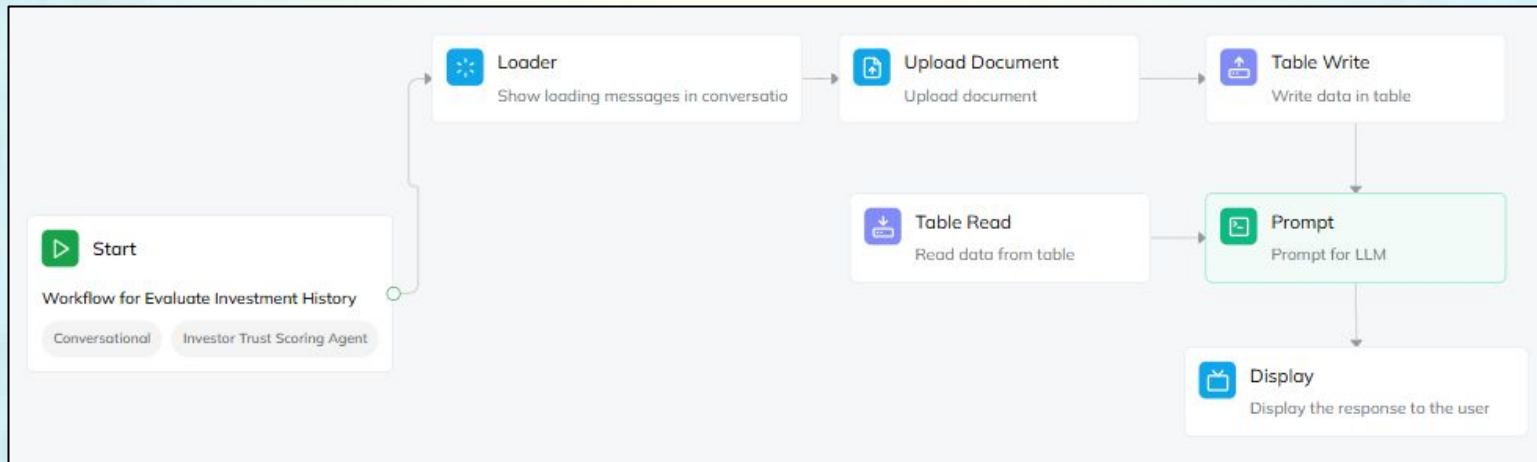
- Diversification vs. Focus:
 - The investor should consider diversifying into more technology and innovative sectors while potentially reducing exposure to non-tech industries that have shown higher failure rates.
- Ideal Investment Range:
 - Based on successful patterns, an ideal investment range would be between ₹5,00,000 to ₹10,00,000. This range has historically supported successful exits while minimizing risk exposure.

Structured Investment Recommendation

1. Continue to focus on technology and innovation sectors for future investments, as they have historically yielded better success rates.
2. Diversify investments into emerging technologies or services related to successful past investments, while being cautious with larger capital allocations.
3. Maintain an investment range of ₹5,00,000 to ₹10,00,000 to balance risk and return effectively, aiming for startups with solid business models and market potential.
4. Conduct thorough due diligence on market conditions and industry trends before making new investments to mitigate risks associated with sector volatility.

History Assessment

History Analysis



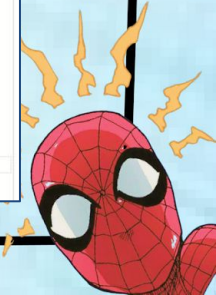
Important Ratio Calculation

JavaScript function to Calculate important financial ratios for ai agents to use

Ratio calculation

Ratio calculation

```
1 const main = () => {  
2   let csvString = input.data;  
3   let records = parse(csvString, { columns: true });  
4  
5   let results = records.map(row => {  
6     let debt = parseFloat(row["Debt (USD)"]);  
7     let equity = parseFloat(row["Equity (USD)"]);  
8     let ebit = parseFloat(row["EBIT (USD)"]); // Assume EBIT as Net Income  
9  
10    let debtToEquity = equity > 0 ? (debt / equity).toFixed(2) : "N/A";  
11    let returnOnEquity = equity > 0 ? ((ebit / equity) * 100).toFixed(2) + "%" : "N/A";  
12  
13    return {  
14      "Company Name": row["Company Name"],  
15      "Debt-to-Equity Ratio": debtToEquity,  
16      "Return on Equity (ROE)": returnOnEquity  
17    };  
18  });  
19  
20  console.log("Financial Ratios Calculation:");  
21  console.table(results);  
22 }  
23 }
```

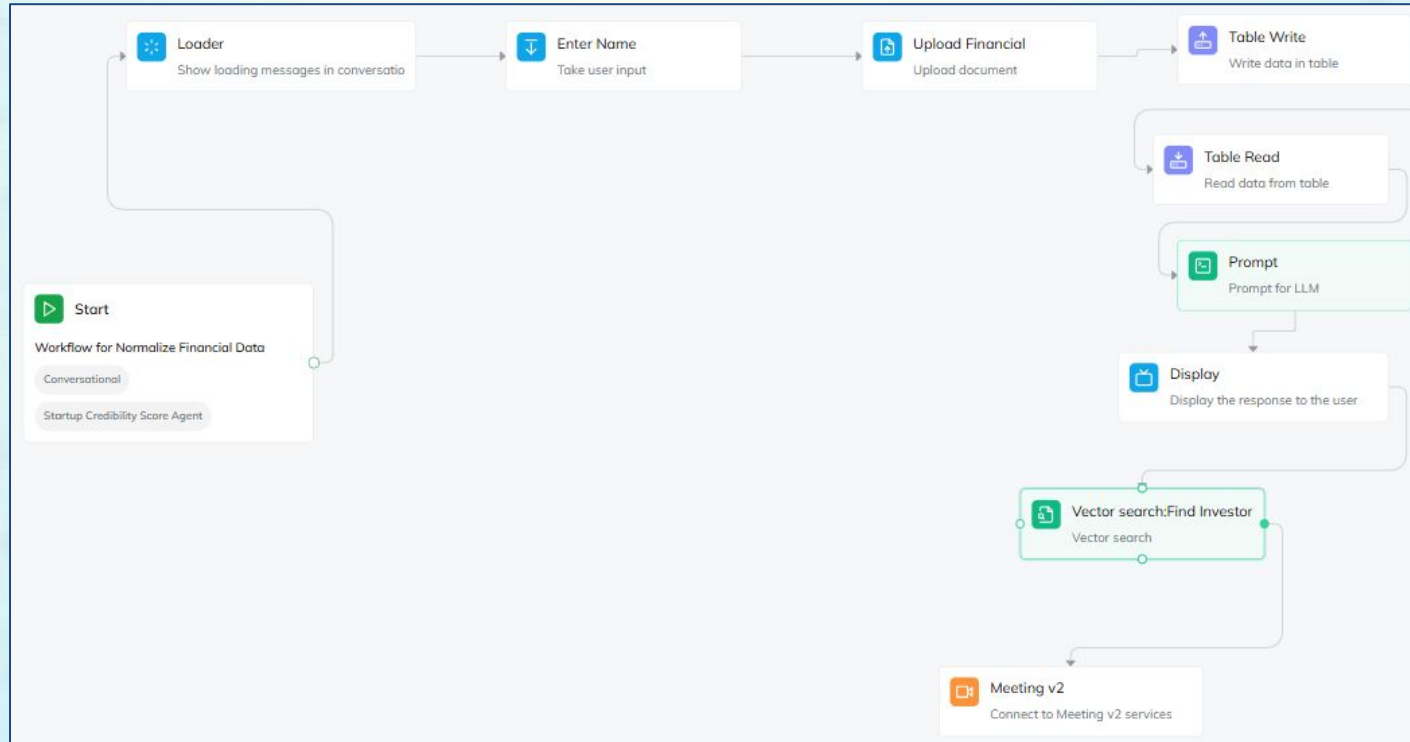


Addition after First Round



Startup Flow

(Store their data, get credibility score and find the best investor)



Startup Flow Explanation




1. The Startup Company enters their Name
2. The company uploads their balance sheet, debt equity sheet and cashflow which are then stored in Tables
3. The name of the company and the datasets are stored
4. Based on these datasets a credibility score is generated for the startup company
5. Now the agent suggest various investors matching the startup company
6. A google is scheduled between both the parties




RAG (Structure) for balance sheet

RAG > RAG Containers


test

 RAG Details: test ...

Vector Store test	No. of Candidates 5	Generation LLM GPT 4 Turbo (Azure)
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 Vector Store : test ...

Data Store testdatastore	Database MongoDB	Embedding Model OpenAI - text-embedding-3-large	Distance Strategy Cosine Similarity
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 Data Store : testdatastore ...


No. of data sources 1	Metadata Extraction Workflow -	Filter Fields -	Enable PII Masking NO
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Data Sources:

 BalanceSheet CSV File - 177 Bytes Chunking Strategy: - Recursive Character Splitting	View Chunks 	 Upload File
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RAG (Implementation Outputs)


▶ RAG Playground

 GPT 4 Turbo (Azure)
An advanced model suitable for complex and intelligent tasks.

test


Filter Config

give me total assets

 Based on 4 sources
The total assets reported are as follows:

- For the year 2022: 4,500,000
- For the year 2021: 5,000,000

now tell me total liabilities

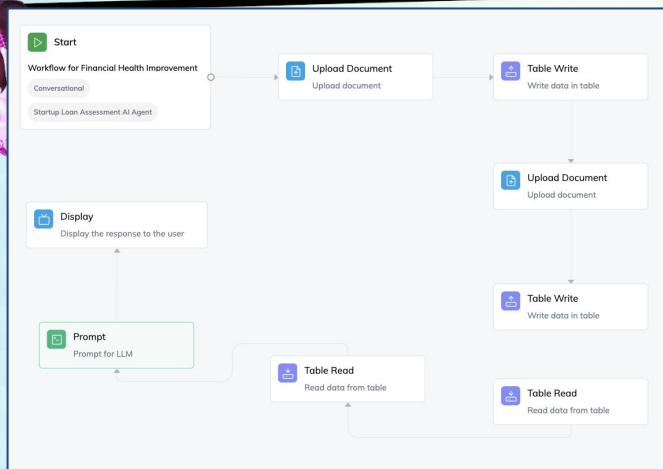
 Based on 4 sources
The total liabilities reported are:

- For the year 2022: 1,800,000
- For the year 2021: 2,000,000

Enter query

Send

Loan Assessment Agent



Startup Loan Assessment AI Agent

Enter Balance sheet

Enter ITR

Based on the provided balance sheet and income statements, let's analyze the financial health of the company, recommend loan eligibility, suggest a loan plan if advisable, and highlight potential growth and risk factors.

Financial Analysis

Key Financial Figures

- Total Assets: \$185,000
- Total Liabilities: \$30,000
- Owner's Equity: \$155,000
- Cash: \$50,000
- Accounts Receivable: \$15,000

Type here...

Debug Mode

I want to use financial health improvement

startup_balance_sheet.csv

Text

startup_income_tax_return.csv

Text

Based on the provided balance sheet and income statements, let's analyze the financial health of the company, recommend loan eligibility, suggest a loan plan if advisable, and highlight potential growth and risk factors.

Financial Analysis

Key Financial Figures

- Total Assets: \$185,000
- Total Liabilities: \$30,000
- Owner's Equity: \$155,000
- Cash: \$50,000
- Accounts Receivable: \$15,000
- Inventory: \$20,000
- Short-term Debt: \$20,000
- Accounts Payable: \$10,000

Key Ratios

1. Current Ratio: $\frac{\text{Current Assets}}{\text{Current Liabilities}} = \frac{\$185,000}{\$30,000} = 2.83$
 - A current ratio above 2 indicates strong liquidity. The company can cover its short-term obligations comfortably.
2. Debt-to-Equity Ratio: $\frac{\text{Debt}}{\text{Equity}} = \frac{\$20,000}{\$155,000} = 0.19$
 - A low ratio indicates that the company has less debt relative to equity, suggesting lower financial risk.
3. Cash Ratio: $\frac{\text{Cash}}{\text{Current Liabilities}} = \frac{\$50,000}{\$30,000} = 1.67$
 - A cash ratio over 1 indicates that the company can cover current obligations with cash alone.
4. Operating Cash Flow (Assuming net income derived from the provided figures):
 - Without explicit cash flow figures, I'll assume net income as a measure of operational efficiency.

Given these calculations, the company shows strong financial stability and manageable debt levels.

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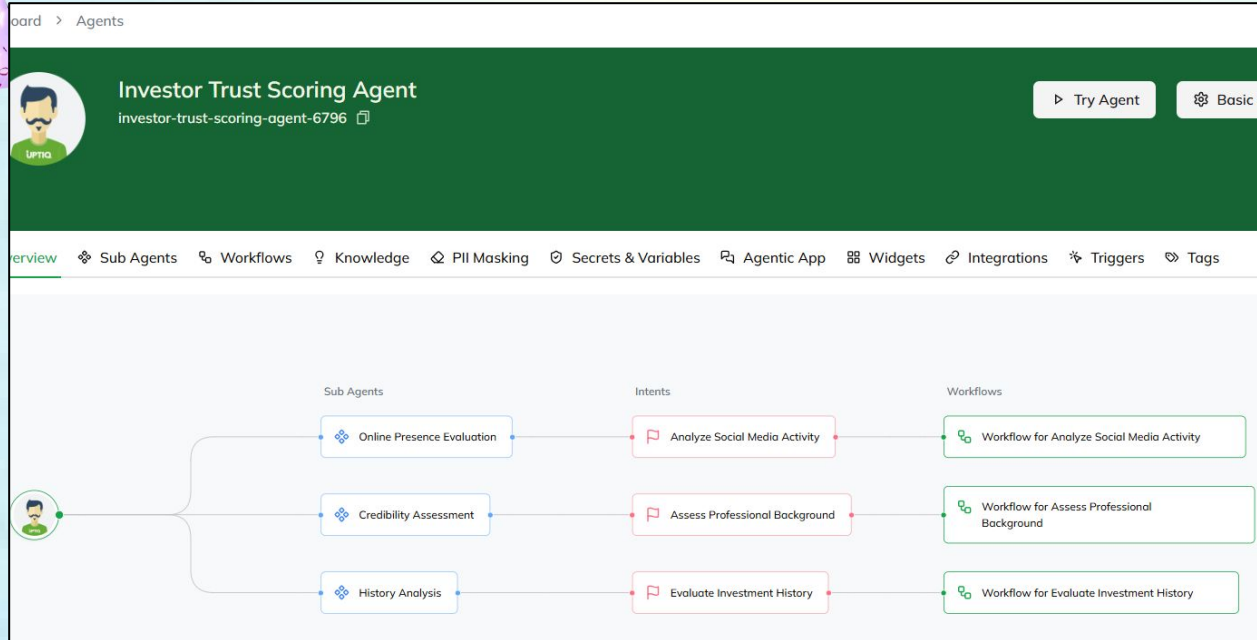
Saved Prompts

A **Loan Assessment Agent** evaluates financial data to determine loan eligibility, suggest optimal loan plans, and provide risk and growth insights.



Investor Trust Scoring Agent

There are 3 Sub-Agents :-



Online Presence Evaluation - Assesses social media activity to analyze an investor's digital footprint.

Credibility Assessment - Examines professional background to determine trustworthiness and reliability.

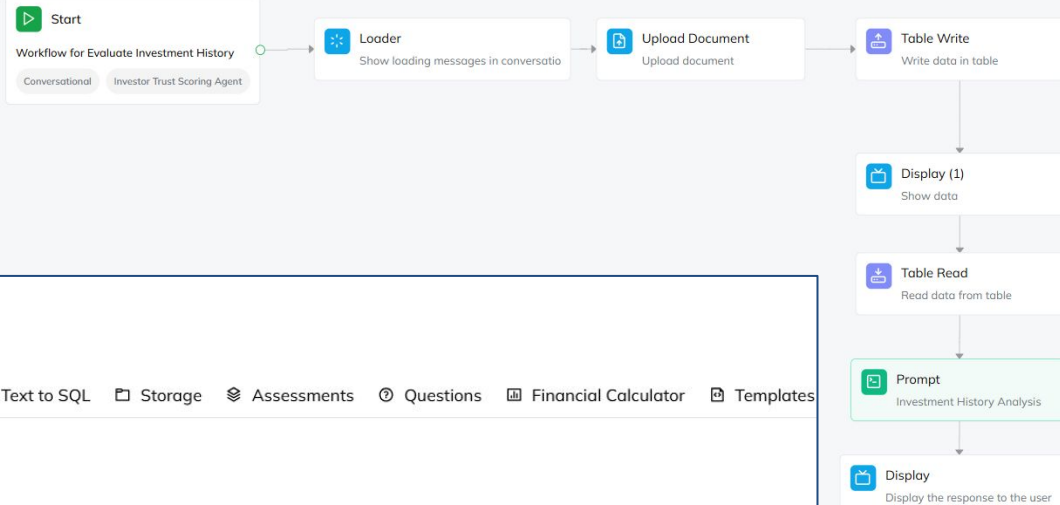
History Analysis - Reviews investment history to evaluate financial decision-making patterns.



Investor Trust Scoring Agent

1) Evaluate Investment History

Evaluate Investment History



Dashboard

Tables ⓘ

Rulesets Code Snippets Database Configurations **Tables** Text to SQL Storage Assessments Questions Financial Calculator Templates

+ Create Table

Name

Created At

Actions

investment_history

Mar 28, 2025, 10:26 AM

⋮

Investor Trust Scoring Agent

1) Evaluate Investment History

Investment History Analysis

1. Extracted Details:

- Total Number of Investments Made: 10
- Total Successful Exits: 7
- Total Failed Investments: 3
- Total Amount Invested Across All Companies: ₹45,00,000
- Success Rate (%): $(\frac{7}{10}) \times 100 = 70\%$

Insights

- Has the investor historically been more successful in specific industries?
 - Yes, the investor has been more successful in technology (e.g., AlphaTech, GammaAI) and finance (e.g., DeltaFin, KappaBlockchain).
- What type of startups have resulted in the highest returns?
 - Startups in technology and finance sectors have yielded the highest returns.
- What factors contribute to failures?
 - Investment Size: Smaller investments in certain sectors may not yield high returns.
 - Industry: Health and food sectors have shown higher failure rates.
 - Market Conditions: Economic downturns or changing consumer preferences can adversely affect startups.
- Should the investor diversify or continue focusing on a specific sector?
 - The investor should consider diversifying into emerging sectors (e.g., renewable energy, health tech) while continuing to focus on technology and finance, which have historically performed well.
- Recommend the ideal investment range for future investments based on success patterns.
 - The ideal investment range for future investments should be between ₹8,00,000 to ₹12,00,000, as this range has been associated with successful exits in the past.

Structured Investment Recommendation

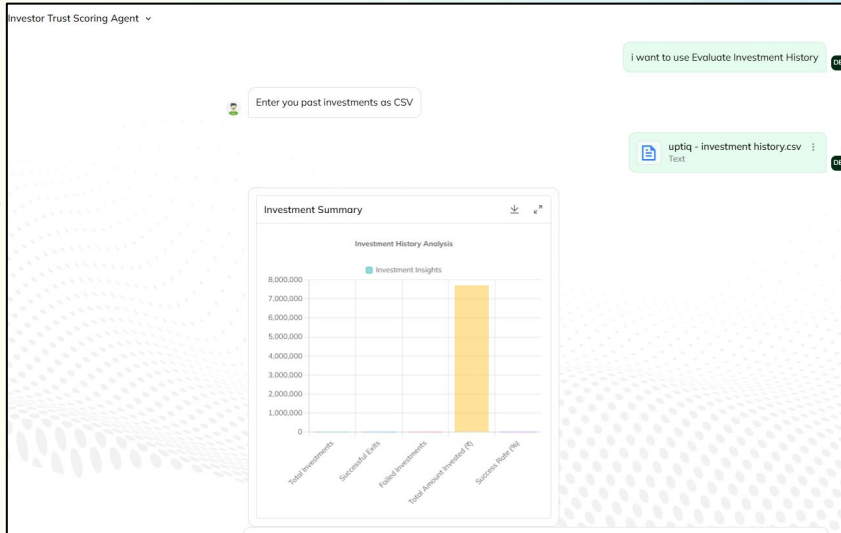
1. Focus on Technology and Finance:
 - Continue investing in tech-driven startups and financial services, as these sectors have shown the highest success rates.
2. Diversification Strategy:
 - Explore investments in renewable energy and health tech, but limit initial investments to mitigate risk.
3. Investment Size:
 - Maintain investment amounts within the ₹8,00,000 to ₹12,00,000 range to balance risk and return.
4. Regular Review:
 - Conduct periodic reviews of market conditions and adjust investment strategies accordingly to adapt to changing trends.
5. Networking:
 - Engage with industry experts and attend sector-specific events to gain insights and identify promising startups.

By following these recommendations, the investor can enhance their portfolio performance and increase the likelihood of successful investments in the future.

Graphical summary
followed by textual
analysis

Textual Investment
History analysis

OUTPUTS for (1)



Investor Trust Scoring Agent

2) Assess Professional Background

OUTPUT for (2)



Assessment based on Professional Background (eg LinkedIn)

Investor Trust Scoring Agent ▾

This is the assement score:

```
```json { "credibility_score": 6, "decision": "Moderate level of credibility.", "reasoning": "The profile showcases relevant experience in technology and blockchain, along with a solid educational background. However, the lack of extensive professional experience and endorsements limits its overall credibility for serious investment discussions." } ```
```



i want to check credebility assement of investor.

<https://www.linkedin.com/in/devangana-barua-58871725b/>

DB

This is the assement score:

Based on the provided LinkedIn profile data, here is the credibility assessment:

- **credibility\_score:** 6
- **decision:** "Moderate level of credibility."
- **reasoning:** The profile demonstrates a solid educational background in Computer Engineering and relevant internship experiences, showcasing involvement in projects and competitions. However, the lack of extensive professional experience and endorsements limits its overall credibility for serious investment discussions.



Assess Professional Background



Start

Workflow for Assess Professional Background

Conversational

Investor Trust Scoring Agent

Loader

Show loading messages in conversatio

Input

Take user input

Web Crawler

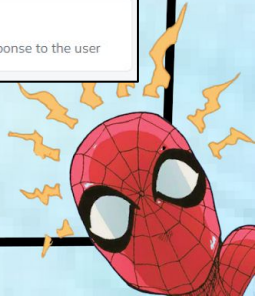
Crawl web pages

Prompt

Prompt for LLM

Display

Display the response to the user



# Investor Trust Scoring Agent

## 3) Assess Professional Background

OUTPUT for (3)



Fetching data from Social Media profiles using Web Crawlers and Analyse

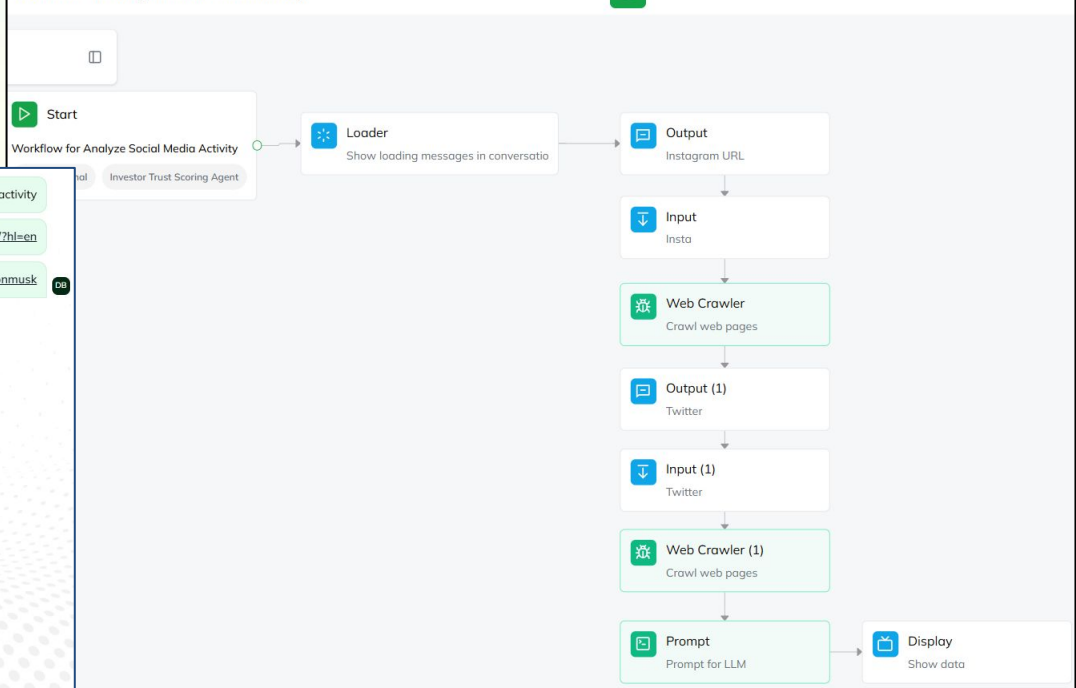
The Social Media Analysis:

**\*\*Credibility Evaluation for Instagram Profile: Apple\*\***

1. Credibility Score: 10/10
2. Decision: Excellent credibility for investment talks.
3. Reasoning:
  - o Strengths:
    - High Engagement: Apple's Instagram profile boasts millions of followers and consistently high engagement rates on posts, indicating a strong connection with its audience.
    - Professional Presence: The profile is well-curated, showcasing high-quality visuals and content that reflect the brand's identity and values.
    - Verification: The account is verified, which adds a layer of authenticity and trustworthiness to the profile.
    - Content Relevance: Posts are relevant to the tech industry, featuring product launches, updates, and innovations that are of interest to investors and consumers alike.
  - o Weaknesses:
    - None Identified: The profile does not exhibit any significant weaknesses that would detract from its credibility. There are no signs of low engagement or bot-like activity, and the content is consistently professional and relevant.

Overall, the Apple Instagram profile demonstrates exceptional credibility and is highly suitable for investment discussions.

Workflow for Analyze Social Media Activity



# Additional Startup Side Features



Give me my debt equity optimization



The debt-equity optimization shows a stable debt-equity ratio of 0.67 for both years, indicating a balanced and sustainable level of debt relative to equity.

Evaluate my Financial Risk



The total assets for the years provided are as follows:

- For the year 2022: \$4,500,000
- For the year 2021: \$5,000,000 Based on the provided data, here's a risk assessment for each company:

1. ExampleCorp
  - Debt-Equity Ratio: 2.5
  - Interest Coverage Ratio (ICR): 4.0 (EBIT/Interest Expense)
  - Risk Level: Moderate. The ICR is above 3, indicating a healthy ability to cover interest expenses.
2. FinTech Inc
  - Debt-Equity Ratio: 2.0
  - ICR: 3.75
  - Risk Level: Moderate to High. The ICR is acceptable, but improvements in credit score and reduction of debt could mitigate risks further.
3. AutoMotive Ltd

Type here...

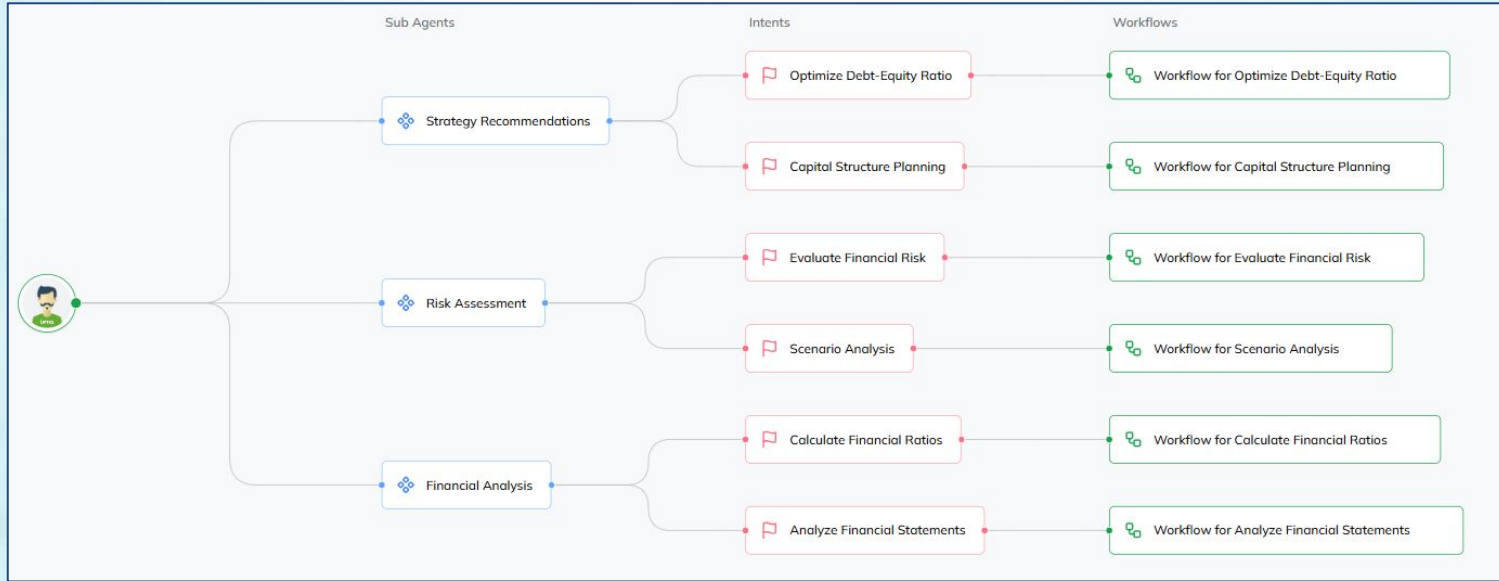


🔖 Saved Prompts





# Additional Startup Side Features





# Business Model

**Key partners:** Startups and Investors

**Business Idea:**

1. Startups and Investors can pay 1 percent of investment as brokerage amount for connecting the startups and Investors
2. Premium membership to get early access of investors to startups or vice versa
3. Charges for additional Agent Features of scheduling quick meetings between startups and investors



# How Mentoring Helped

1. Crafted Business Model
2. Integrated Matchmaking of Startup
3. Added ReadMe File
4. Implemented RAG
5. Used WebCrawler for analysing online presence of investors
6. Used Tables for storing and accessing data

