

Testing and Integration

API Testing

1. Get_Financial_Ratios:

The screenshot shows a web browser window with the address bar displaying '127.0.0.1:8000'. The page title is 'Financial AI Agent'. The interface includes a 'Start Recording' button, a text input field with placeholder text 'User's speech will automatically appear here...', and a 'Submit Query' button. Below the input field is a checkbox labeled 'Use rag to get more information from csv file'. The 'Query Results' section displays the following information:

- User_Query:** what the investment ratio that microsoft allotted or research in last year
- Intent:** get_financial_ratios
- Entities:** {'ticker': 'MSFT', 'metric': 'Research', 'year': '2024', 'date': None}
- API Response:** MSFT's current ratio for 2024 is 1.27.
- Final Response:** MSFT's current ratio for 2024 is 1.27.

2. get_stock_price:

The screenshot shows a web browser window with the address bar displaying '127.0.0.1:8000'. The page title is 'Financial AI Agent'. The interface includes a 'Start Recording' button, a text input field with placeholder text 'User's speech will automatically appear here...', and a 'Submit Query' button. Below the input field is a checkbox labeled 'Use rag to get more information from csv file'. The 'Query Results' section displays the following information:

- User_Query:** the stock price of facebook
- Intent:** get_stock_price
- Entities:** {'ticker': 'META', 'metric': 'price', 'year': None, 'date': None}
- API Response:** META's current stock price is \$545.42.
- Retriever Response:** No relevant data found.
- Final Response:** META's current stock price is \$545.42. Additional Info found in the CSV: No relevant data found.

3. get_market_capitalization:

The screenshot shows a web browser window with the address bar displaying '127.0.0.1:8000'. The page title is 'Financial AI Agent'. Below the title is a green 'Start Recording' button. A text input field contains the placeholder 'User's speech will automatically appear here...'. To the right of the input field is a blue 'Submit Query' button. Below the input field is a checkbox labeled 'Use rag to get more information from csv file'. The 'Query Results' section displays the following information:

- User_Query:** what is the current market value of apple
- Intent:** get_market_cap
- Entities:** {'ticker': 'AAPL', 'metric': 'mktCap', 'year': None, 'date': None}
- API Response:** AAPL's market cap is \$3079.83 billion.
- Retriever Response:** No relevant data found.
- Final Response:** AAPL's market cap is \$3079.83 billion. Additional Info found in the CSV: No relevant data found.

4. Get_stock_price:

The screenshot shows a web browser window with the address bar displaying '127.0.0.1:8000'. The page title is 'Financial AI Agent'. Below the title is a green 'Start Recording' button. A text input field contains the placeholder 'User's speech will automatically appear here...'. To the right of the input field is a blue 'Submit Query' button. Below the input field is a checkbox labeled 'Use rag to get more information from csv file'. The 'Query Results' section displays the following information:

- User_Query:** the stock price of facebook
- Intent:** get_stock_price
- Entities:** {'ticker': 'META', 'metric': 'price', 'year': None, 'date': None}
- API Response:** META's current stock price is \$545.42.
- Retriever Response:** No relevant data found.
- Final Response:** META's current stock price is \$545.42. Additional Info found in the CSV: No relevant data found.

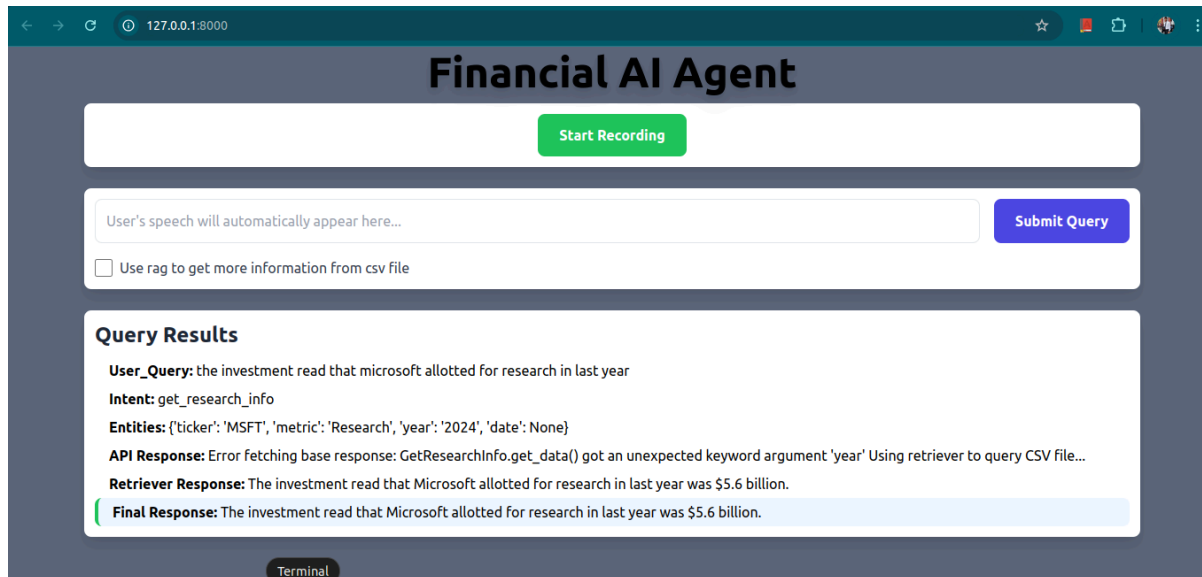
5. Get_cash_flow:

The screenshot shows a web browser window with the address bar displaying '127.0.0.1:8000'. A notification bar at the top states 'You can paste the image from the clipboard.' The main heading of the page is 'Financial AI Agent'. Below the heading is a green 'Start Recording' button. A text input field contains the placeholder 'User's speech will automatically appear here...'. To the right of the input field is a blue 'Submit Query' button. Below the input field is a checkbox labeled 'Use rag to get more information from csv file'. The 'Query Results' section displays the following information:

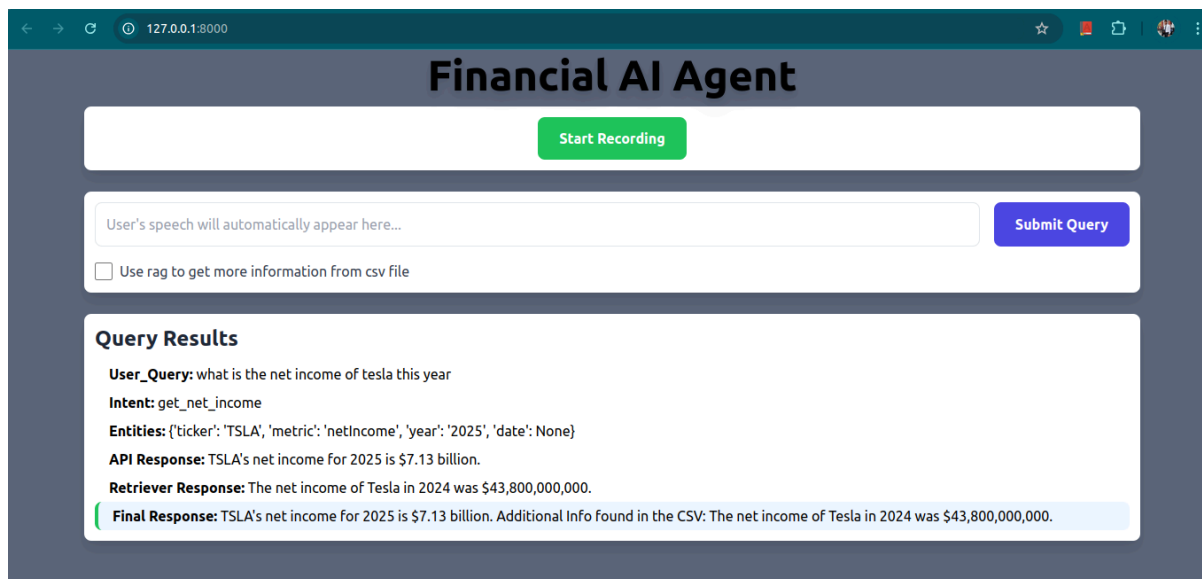
- User_Query:** what is the cash flow of amazon last year
- Intent:** get_cash_flow
- Entities:** {'ticker': 'AMZN', 'metric': 'cashFlowFromOperatingActivities', 'year': '2024', 'date': None}
- API Response:** AMZN's cash from operations for 2024 is \$0.00 billion.
- Retriever Response:** No relevant data found.
- Final Response:** AMZN's cash from operations for 2024 is \$0.00 billion. Additional Info found in the CSV: No relevant data found.

Rag Testing:

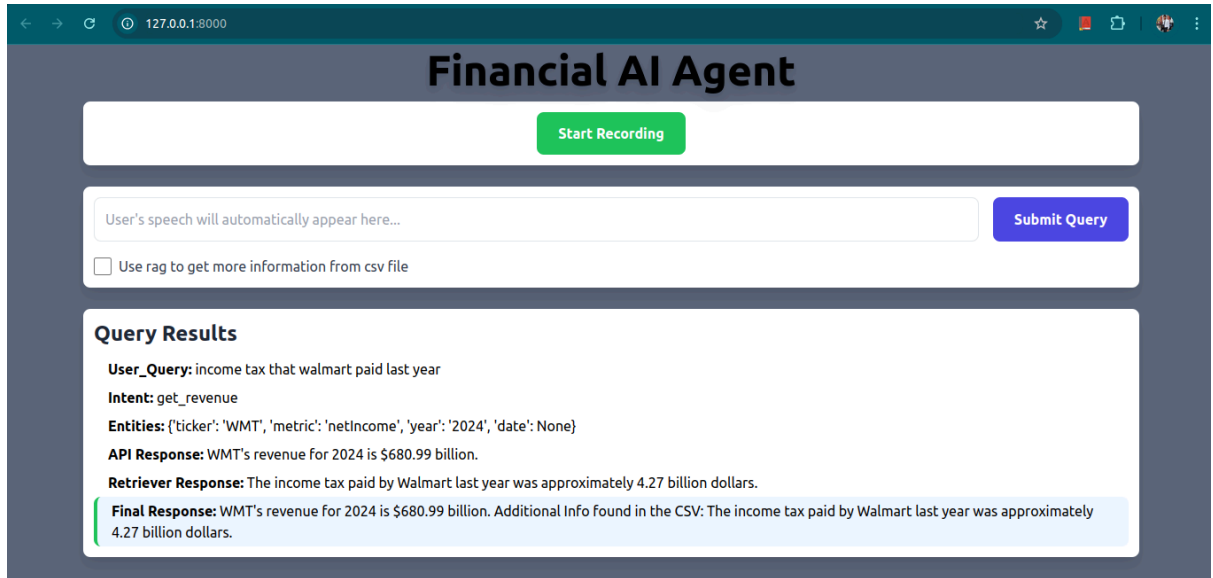
1. Get_research_info:



2. Get_net_income:



3. `get_income_tax`:



The screenshot shows a web browser window with the address bar displaying '127.0.0.1:8000'. The page title is 'Financial AI Agent'. Below the title is a green 'Start Recording' button. A text input field contains the placeholder 'User's speech will automatically appear here...'. To the right of the input field is a blue 'Submit Query' button. Below the input field is a checkbox labeled 'Use rag to get more information from csv file'. The 'Query Results' section displays the following information:

- User_Query:** income tax that walmart paid last year
- Intent:** get_revenue
- Entities:** {'ticker': 'WMT', 'metric': 'netIncome', 'year': '2024', 'date': None}
- API Response:** WMT's revenue for 2024 is \$680.99 billion.
- Retriever Response:** The income tax paid by Walmart last year was approximately 4.27 billion dollars.
- Final Response:** WMT's revenue for 2024 is \$680.99 billion. Additional Info found in the CSV: The income tax paid by Walmart last year was approximately 4.27 billion dollars.

Web Search Testing

1. `get_interest_expense`:

127.0.0.1:8000

Start Recording

User's speech will automatically appear here...

Submit Query

☐ Use rag to get more information from csv file

Query Results

User_Query: what are the total interest that meta paid to have bank

Intent: get_interest

Entities: {'ticker': 'META', 'metric': 'InterestExpense', 'year': None, 'date': None}

API Response: Error fetching base response: GetInterest.get_data() got an unexpected keyword argument 'year' Using retriever to query CSV file...

Retriever Response: No relevant data found.

Web Search Response: Capitalized interest: Amount of interest costs capitalized disclosed as an adjusting item to interest costs incurred. Meta Platforms Inc. capitalized interest increased from 2022 to 2023 and from 2023 to 2024. Interest costs incurred: Total interest costs incurred during the period and either capitalized or charged against earnings.

Final Response: Capitalized interest: Amount of interest costs capitalized disclosed as an adjusting item to interest costs incurred. Meta Platforms Inc. capitalized interest increased from 2022 to 2023 and from 2023 to 2024. Interest costs incurred: Total interest costs incurred during the period and either capitalized or charged against earnings.

2. get_interest_expense:

127.0.0.1:8000

Start Recording

User's speech will automatically appear here...

Submit Query

☐ Use rag to get more information from csv file

Query Results

User_Query: give a brief description of nvidia

Intent: get_interest

Entities: {'ticker': 'NVDA', 'metric': None, 'year': None, 'date': None}

API Response: Error fetching base response: GetInterest.get_data() got an unexpected keyword argument 'year' Using retriever to query CSV file...

Retriever Response: No relevant data found.

Web Search Response: NVIDIA in Brief NVIDIA pioneered accelerated computing to tackle challenges no one else can solve. Our work in AI and digital twins is transforming the world's largest industries and profoundly impacting society. Learn more. Company History Founded in 1993, NVIDIA is the world leader in accelerated computing. Our

Final Response: NVIDIA in Brief NVIDIA pioneered accelerated computing to tackle challenges no one else can solve. Our work in AI and digital twins is transforming the world's largest industries and profoundly impacting society. Learn more. Company History Founded in 1993, NVIDIA is the world leader in accelerated computing. Our