

Multi-Agent Cricket Analysis System Project Notes

1. Import Necessary Libraries:

- The script starts by importing the required libraries. streamlit is used for creating the web interface, and the phi components (agent, model, tools) are used for the AI functionality. dotenv and os are used to handle environment variables.

2. Load Environment Variables:

- Loads the OpenAI API key from a .env file.

3. Initialize the Live Match Agent:

- Creates an agent dedicated to fetching and summarizing live cricket match scores. It uses the OpenAI gpt-4o model and the DuckDuckGo search tool.

4. Set Instructions for the Live Match Agent:

- Defines the specific instructions for the agent, including searching for live scores, summarizing the match, and using markdown tables.

5. Enable Debugging and Markdown Output for the Live Match Agent:

- Sets flags to control the agent's behavior during development and for formatting the output.

6. Initialize the Player Stats Agent:

- Creates an agent focused on fetching and summarizing player statistics.

7. Set Instructions for the Player Stats Agent:

- Defines the instructions for this agent, including finding recent player stats, including batting and bowling information, and using tables for formatting.

8. Enable Debugging and Markdown Output for the Player Stats Agent:

- Sets the flags for debugging and output formatting.

9. Initialize the Cricket News Agent:

- Creates an agent dedicated to finding and summarizing cricket news.

10. Set Instructions for the Cricket News Agent:

- Defines the instructions for the agent: find and summarize news, highlight important updates, and list headlines with sources.

11. Enable Debugging and Markdown Output for the Cricket News Agent:

- Sets the flags for debugging and output formatting.

12. Initialize the Main Cricket Analysis Team Agent:

- Creates the central agent that orchestrates the other agents.

13. Define the Team for the Main Cricket Analysis Team Agent:

- Instead of `tools=`, this script uses `team=` to explicitly add each of the 3 agents created above.

14. Set Instructions for the Main Cricket Analysis Team Agent:

- Defines instructions for providing match scores, player statistics, and news updates, emphasizing structured formatting.

15. Enable Debugging and Markdown Output for the Main Cricket Analysis Team Agent:

- Sets the debugging and output formatting flags.

16. Configure Streamlit Page:

- Sets the title and layout of the Streamlit application.

17. Create Streamlit Title:

- Sets the heading text on the page.

18. Create Streamlit Columns:

- Creates two columns in the Streamlit layout to hold the input fields.

19. Create Streamlit Input Fields:

- Creates text input fields for entering match and player queries.

20. Create Streamlit Button:

- Creates a button that triggers the data fetching and display process.

21. Construct Query Based on Inputs:

- When the button is pressed, this section builds the query string based on user inputs for the match and player.

22. Fetch and Display Data:

- Displays a spinner while the data is being fetched.
The cricket_team agent is run with the constructed query, and the response is displayed in the Streamlit application using Markdown formatting.

