**Intelligent Crop Planning and Management using ML**

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CSIS 4495: Applied Research Project

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**Work Log**

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| --- | --- | --- |
| **Date** | **Description of work done** | **Number of hours** |
| March 3, 2025 | Used OpenAI API to make a chatbot that can respond to agriculture related queries. | 2 |
| March 4, 2025 | Switched to OpenRouter API because I reached the free API calls limit on OpenAI API | 2 |
| March 6, 2025 | Improved the user interface of the chatbot to look like a chat | 1 |
| March 7, 2025 | Worked on formatting bot’s answers which were in plain text. This was an unsuccessful attempt | 2 |
| March 8, 2025 | Retained chat history of previous messages | 1.5 |
| March 12, 2025 | Resolved issue with the bot responses that contained hundreds of emojis | 1.5 |
| March 13, 2025 | Unexpected connection errors in bot’s responses | 1 |
| March 14, 2025 | Implemented login and register | 1 |
| March 15, 2025 | Created database on AWS DynamoDB to contain user data and chat data | 2.5 |

This week, I built a chatbot called AgriAdvisor Bot that integrates with OpenRouter's Mistral model. I added session-based chat history to maintain conversational context and styled the interface using Bootstrap. One major improvement yet to be implemented is formatting the bot’s responses into structured HTML (e.g., bullet points and tables). I also created a login/register system using Flask forms and securely stored user data and chat history in AWS DynamoDB. The chatbot stores user’s previous messages. I faced issues with session persistence and AWS table schema.