Group F

16th of June 2023

Report III

Team Meetings log

- [x] ~~[Date: 7th of June] [Physical Meeting] Meeting-4: Meeting with the team.~~

- We discussed software process models.
- Then we compared different models.
- We summarized the requirements of our system and came up with a software process model that best suited our project.
- We are going to follow the agile software model as it comprehends our necessities.
- We discussed how we are going to follow the agile model. Then we came up with the idea that it will be feasible if we break down our project into sprints. So, we will be following the SDLC within each sprint.

- [x] ~~[Date: 13th of June] [Physical Meeting] Meeting-5: Meeting with the team.~~

We discussed the AI model we are planning to develop and identified its key features. The AI model aims to enhance our web application by leveraging machine learning algorithms and techniques.

We came up with the following features for the AI model:

- Crop Recommendation: The AI model will analyze various factors such as weather conditions, soil quality, and historical crop yields to provide personalized crop recommendations to farmers. By considering these factors, the model will suggest the most suitable crops for specific conditions, helping farmers make informed decisions.

- Fertilizer Optimization: Another feature of the AI model is to optimize fertilizer usage. By analyzing soil nutrient levels, crop nutrient requirements, and environmental factors, the model will provide recommendations on the optimal amount of fertilizer needed for specific crops. This will help farmers optimize their fertilizer usage, reduce costs, and improve overall crop health.

- Yield Prediction: Developing a feature that predicts crop yield based on various factors such as historical data, weather patterns, soil conditions, and farming practices. This can assist farmers in estimating their expected harvest and making informed decisions regarding resource allocation, marketing, and sales planning.

- Irrigation Management: Incorporating a feature that analyzes weather data, soil moisture levels, and crop water requirements to provide recommendations on optimal irrigation scheduling and water management practices. This can help farmers optimize water usage, conserve resources, and improve crop productivity.

- Crop Rotation Suggestions: Offering recommendations on crop rotation strategies based on the AI model's analysis of soil nutrient depletion, pest management, and yield optimization. This feature can assist farmers in planning their crop rotation cycles to maintain soil health and maximize overall crop yield.

- Harvest Planning and Logistics: Providing tools and insights for efficient harvest planning, including recommendations on optimal harvest timing, storage conditions, and transportation logistics. This can help farmers streamline their post-harvest processes and minimize losses

Agenda:

- [x] ~~"We have created a document outlining the roles and responsibilities suitable for each phase of the Software Development Life Cycle (SDLC). The document provides insights into the key job positions and their involvement throughout the various stages of the SDLC process.~~

- [x] ~~We have collectively decided to adopt the Agile methodology, specifically the Scrum framework, for our software development process. The Scrum framework offers a structured approach to managing our project, enabling iterative and collaborative development.~~

- [x] ~~We conducted interview sessions with key stakeholders, including Wholesale persons, Farmers, and Exporters, to gather valuable insights and understand their perspectives on the proposed web application~~

- [ ] Team Progress
- [x] ~~@Lakmal G~~
  - The final stage of GitHub Basics
  - Learning React
  - Learning Django
  - Learning Figma
  - Identified various database languages commonly used in web application development. However, yet to finalize the specific database language to be used for our project.
- [x] ~~@Nimesh B~~
  - The final stage of GitHub Basics
  - Learning React
  - Learning Django
  - Learning Figma
  - Develop a basic web application using React, applying the knowledge and skills acquired during the learning process.
  -
- [x] ~~@Shalani S~~
  - The final stage of GitHub Basics
  - Learning React
  - Learning Django
  - Learning Figma
  - Develop a basic web application using React, applying the knowledge and skills acquired during the learning process.
- [x] ~~@Thilan K~~
  - The final stage of GitHub Basics
  - Learning React
  - Learning Django
  - Learning Figma

- Develop a basic web application using React, applying the knowledge and skills acquired during the learning process.

TODO:

- [x] ~~@Lakmal G~~
- [ ] Continue to learn Figma
- [ ] Continue to learn React
- [ ] Continue to learn Django
- [ ] Start to Learn about Machine Learning techniques

- [x] ~~@Nimesh B~~
- [ ] Continue to learn Figma
- [ ] Continue to learn React
- [ ] Continue to learn Django
- [ ] Start to Learn about Machine Learning techniques

- [x] ~~@Shalani S~~
- [ ] Continue to learn Figma
- [ ] Continue to learn React
- [ ] Continue to learn Django
- [ ] Start to Learn about Machine Learning techniques

- [x] ~~@Thilan K~~
- [ ] Continue to learn Figma
- [ ] Continue to learn React
- [ ] Continue to learn Django
- [ ] Start to Learn about Machine Learning techniques

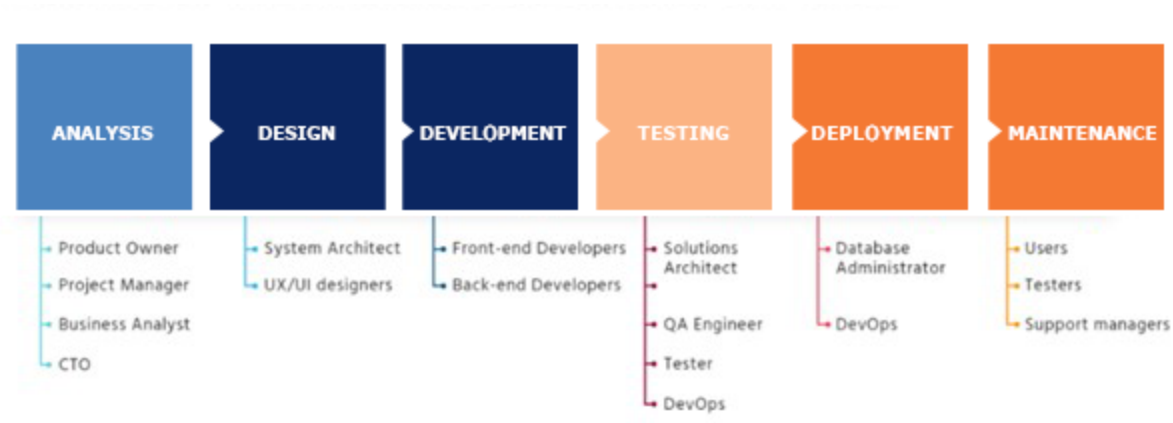
Materials for Machine Learning and A.I. :

https://www.dropbox.com/s/vvdrwo6zxunx6h6/STANFORD_main_notes.pdf?dl=0

https://youtu.be/NWONeJKn6kc

https://youtu.be/i_LwzRVP7bg

SDLC Cycle and Roles Suitable for Each Step:



Remaining Work:

- [ ] Will schedule a meeting with Mr. Pramuka Weerasinghe, our supervisor, to discuss our ideas regarding the AI features that we have previously discussed.

The purpose of this meeting will be to seek Mr Weerasinghe's guidance and expertise, ensuring that our AI features align with the project objectives and meet the desired outcomes.

- [ ] Will schedule a meeting with Mr Pramuka Weerasinghe, our supervisor, to discuss the outcomes of our interview sessions with stakeholders and to explore potential new features to add to the project
- [ ] Issues / Decisions yet to be made

Timeline:

Title	**Dates**	**Assigned to**	**Description**
Practising Wireframe Design with Figma	Jun 17, 2023 - Jul 2, 2023	@Lakmal G @Nimesh B @Shalani S @Thilan K	
Meeting-3 : Meeting with Mr. Pramuka Weerasinghe	Jun 19, 2023	@Lakmal G @Shalani S @Nimesh B @Thilan K	
Meeting-4: Meeting with Mr. Pramuka Weerasinghe	Jun 22, 2023	@Lakmal G @Nimesh B @Shalani S @Thilan K	
Find suitable data sets for A.I models	Jun 17, 2023 - Jun 28, 2023	@Lakmal G @Nimesh B @Shalani S @Thilan K	
Meeting-6: Meeting with the team.	Jun 20, 2023		
Meeting-7: Meeting with the team.	Jun 23, 2023		