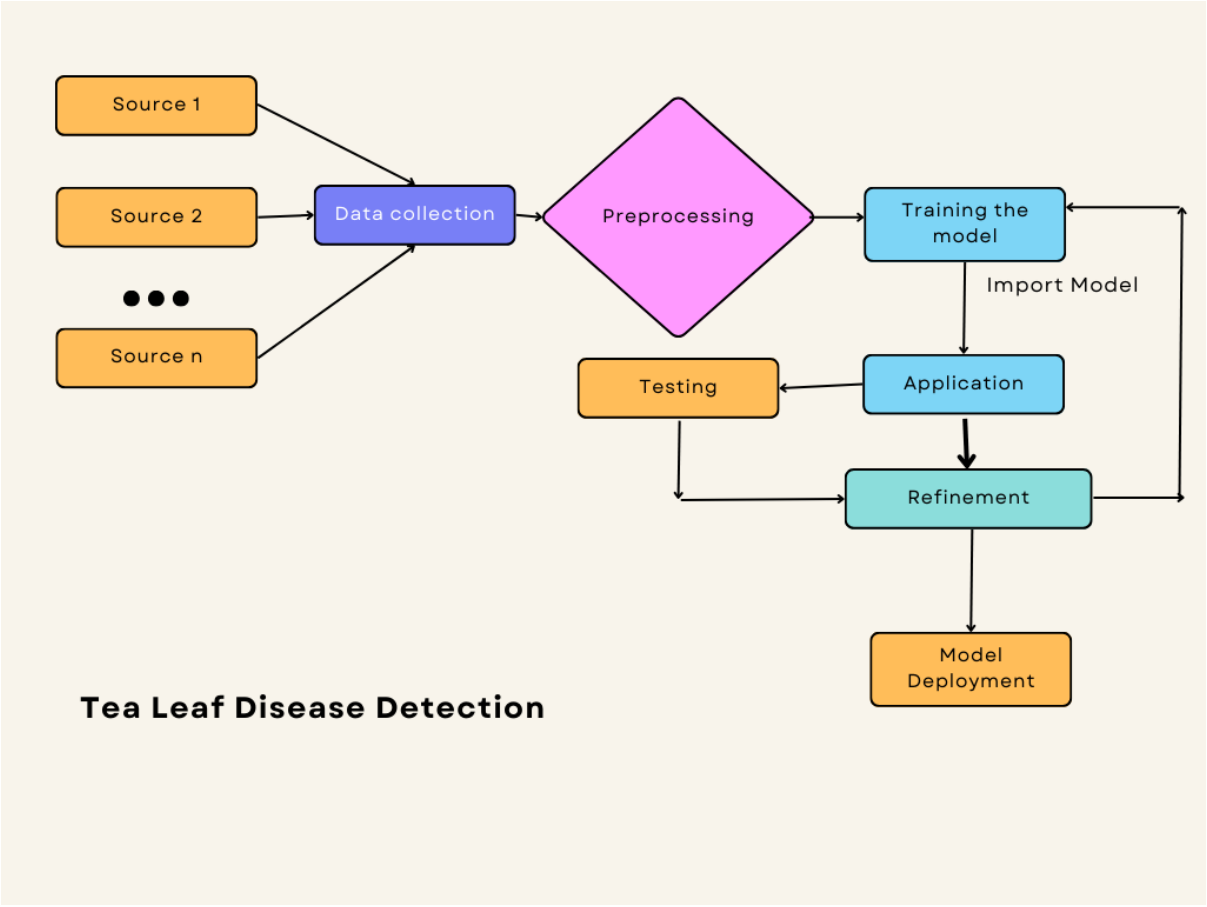
Project Design Phase-II Data Flow
Diagram & User Stories

Date	23-10-2023
Team ID	Team-592327
Project Name	Deep Learning Model For Detecting Diseases In Tea Leaves
Team names	Saatvik Sumanta Kotamareddi Abigna Abhigyan Ghoshal Denesh L


Source 1
Source 2
Source n
Data collection
Preprocessing
Training the model
Import Model
Application
Testing
Refinement
Model Deployment
Tea Leaf Disease Detection

User Stories

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Tea Farming companies	Project setup & Infrastructure	USN-1	Set up the development environment with the required tools and frameworks to check for tea leaf diseases	successfully configured with all necessary tools and frameworks	High	Sprint 1
Municipalities and Local Governments	development environment	USN-2	Gather a diverse dataset of images containing different types of tea leaf diseases for training the deep learning model.	Gathered a diverse dataset of images depicting various types of tea leaf diseases	High	Sprint 1
Households and Individuals	Data collection	USN-3	Preprocess the collected dataset by resizing images, normalizing pixel values, and splitting it into training and validation sets.	preprocessed the dataset	High	Sprint 2
Researchers and Academics	data preprocessing	USN-4	Explore and evaluate different deep learning architectures (e.g., CNNs) to select the most suitable model for tea leaf disease detection	we could explore various DL models	High	Sprint 2
Non-Governmental Organizations (NGOs)	model development	USN-5	train the selected deep learning model using the preprocessed dataset and monitor its performance on the validation set.	we could do validation	High	Sprint 3
Educational Institutions	Training	USN-6	implement data augmentation techniques (e.g., rotation, flipping) to improve the model's robustness and accuracy.	we could do testing	medium	Sprint 3

	model deployment & Integration	USN-7	deploy the trained deep learning model as an API or web service to make it accessible for garbage classification. integrate the model's API into a user-friendly web interface for users to upload images and receive tea leaf images and give results on the kind of tea leaf disease if it exists.	we could check the scalability	medium	Sprint 4
	Testing & quality assurance	USN-8	conduct thorough testing of the model and web interface to identify and report any issues or bugs. fine-tune the model hyperparameters and optimize its performance based on user feedback and testing results.	we could create web application	medium	Sprint 5