PROJECT DESIGN PHASE - II

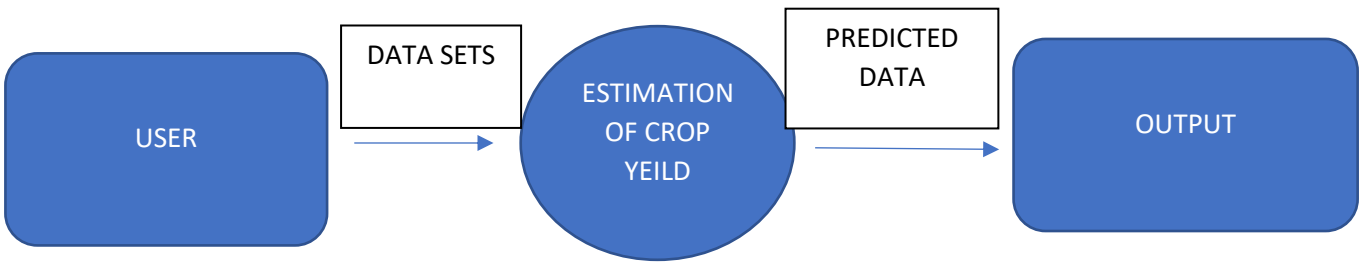
Date	06 Nov 2022
Team ID	PNT2022TMID35100
Project Name	Estimation of crop yield using data analytics.
Maximum Marks	4 Marks

DATA FLOW DIAGRAM

A Data Flow Diagram (DFD) is a traditional visual representation of the information flows within a system. A neat and clear DFD can depict the right amount of the system requirement graphically. It shows how data enters and leaves the system, what changes the information, and where data is stored.

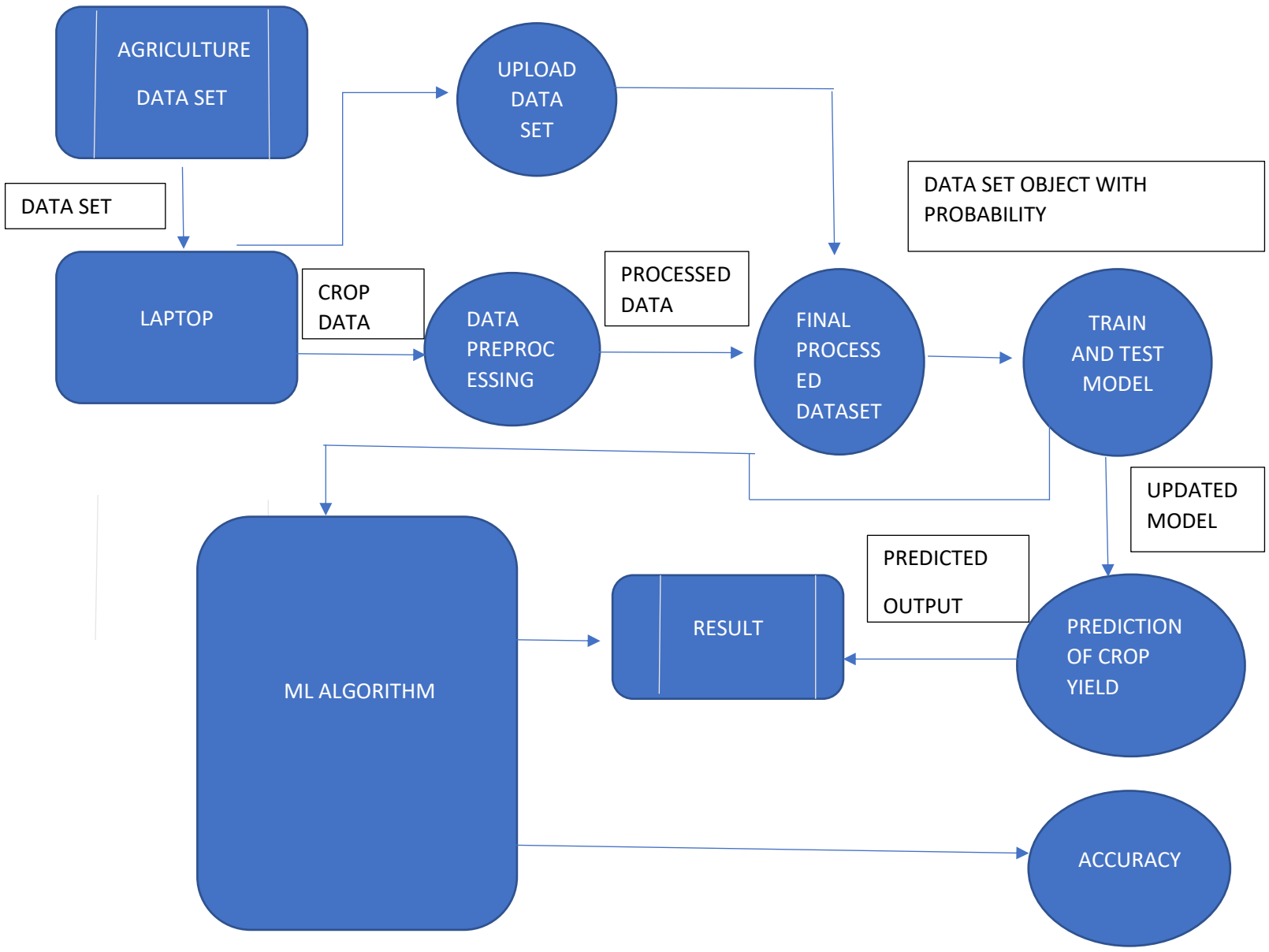
DFD Level-0

The DFD Level-0 consists of two external entities, the User and the Output, along with a process, representing the Estimation of crop yield using data analytics .Output is obtained after prediction.



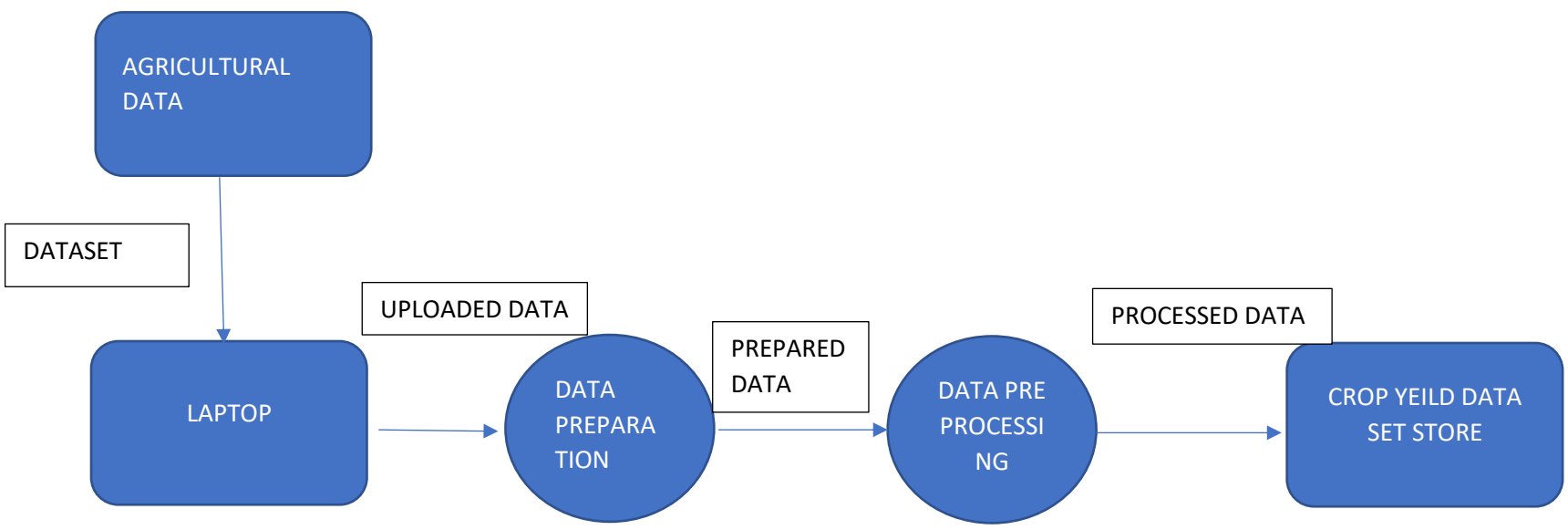
DFD Level-1

The DFD Level-1 consists of 2 external entities, the data processing and the Predictive Output, along with four process blocks and four predictive block stores. Agricultural data and the crop data store, representing the internal workings of the crop yield estimation. Data Processing block imports Agriculture data by analysing the uploaded dataset. Data Processing block imports the crop dataset and process it and sends it to block where test and train model is built. It sends object with probabilities to prediction of crop yield where predicted output are updated and accuracy of the crop yied data are obtained . Block trains and evaluates the model to generate output.



DFD Level-2

The DFD Level-2 for import data(figure 4) consists of two external data and one entity is laptop along with three process blocks, representing the three functionalities of the Estimation of crop yield using data analytics . It imports data from agricultural data store and stores on the system.



USER STORIES

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Customer (Mobile user)	Registration	USN-1	As a user, I can register for the application by entering my email, password, and confirming my password.	I can access my account / dashboard	High	Sprint-1
		USN-2	As a user, I will receive confirmation email once I have registered for the application	I can receive confirmation email & click confirm	High	Sprint-2
		USN-3	As a user, I can register for the application through gmail or facebook	I can register & access the dashboard with Facebook Login	Medium	Sprint-2
	Login	USN-4	As a user, I can log into the application by entering email & password	I can login to the application	High	Sprint-1
	Dashboard	USN-5	Go to dashboard and refer the content about our project	I can read instructions also and the home page is user-friendly.	Low	Sprint-1
	Upload Dataset	USN-6	As a user, I can able to input the agricultural datasets to the application	As a user, I can able to input the agricultural datasets to the application	High	Sprint-3
	Exploratory Data Analysis	USN-7	As a user I can able to get the recognised datasets as output from the agricultural datasets.	I can access the Exploratory Data Analysis-(Exploratory Data Analysis, or EDA, is the machine learning) Understanding the patterns and trends in the data is the goal of data exploration. All of the useful insights are drawn at this point, and the relationships between the variables are recognized.	High	Sprint-3
	Build a ML model	USN-8	As a user, I will train and test the datasets obtained from the agricultural datasets as input to get the maximum accuracy of output.	The Machine Learning Model is built using all of the insights and patterns discovered during Data Exploration. The data set is always separated into two parts, training data and testing data, at this stage. The model will be built and analyzed using the training data. The model's logic is based on the Machine Learning Algorithm that is currently in use.	Low	Sprint-4
	Predict	USN-9	As a user I can able to predict the model and then it is used to make predictions after it has been validated and modified.	I can able to predict the. Crop yield production based on user inputs and it is used to produce the accurate output	High	Sprint-3
Customer (Web user)	Login	USN-10	As a user, I can use the application by entering my email, password.	I can access my account	Medium	Sprint-4

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Customer Care Executive	Dashboard	USN-11	upload the image	Recognize and get the output	High	Sprint-1
Administrator	Security	USN-12	updated the features	checking the security	Medium	Sprint-2