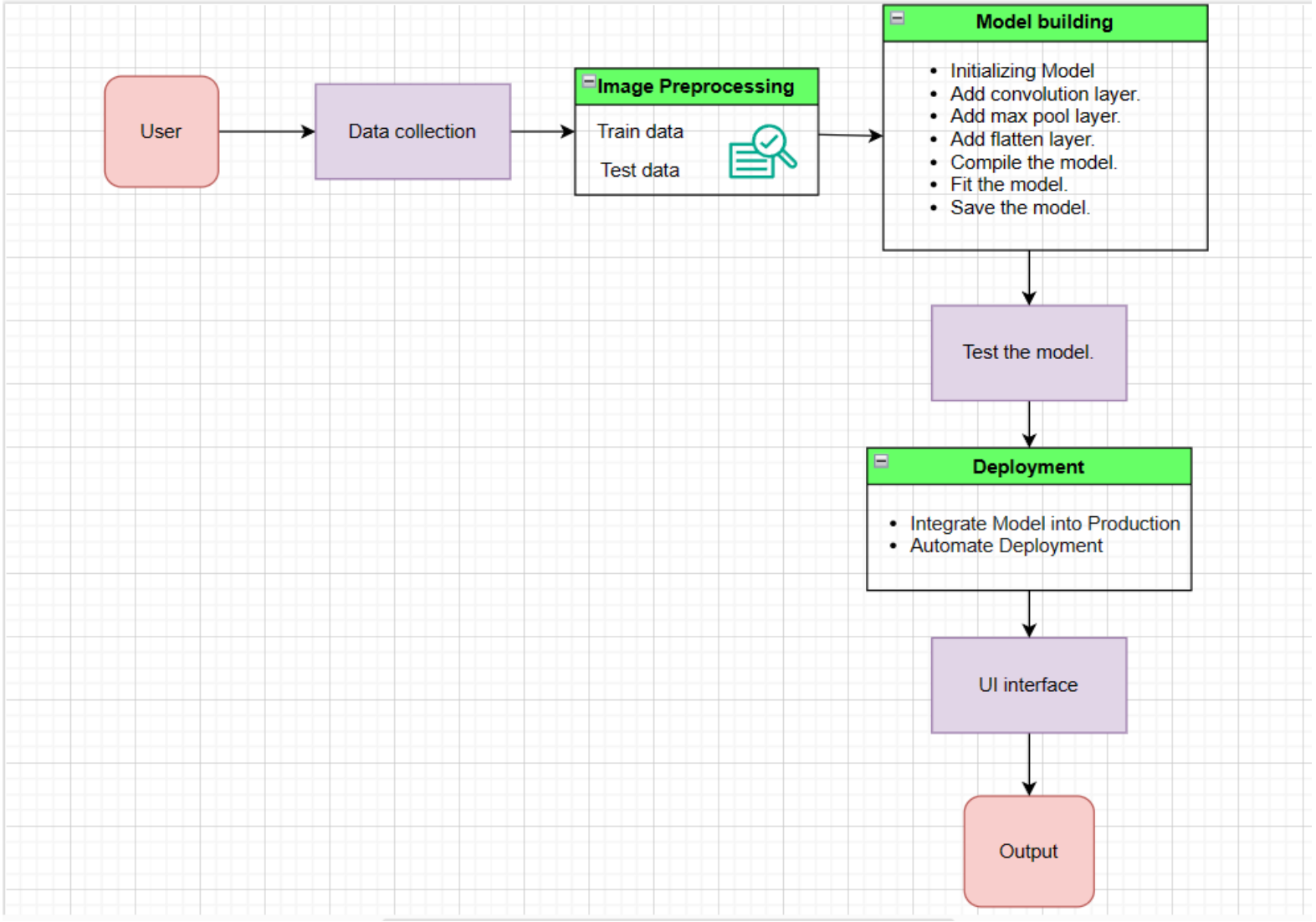
Project Design Phase-II
Data Flow Diagram & User Stories

Date	3 November 2023
Team ID	Team-592065
Project Name	Vitamin Detection using Deep learning
Maximum Marks	4 Marks

Data Flow Diagrams:

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 rightamount of the system requirement graphically. It shows how data enters and leaves the system, what changes the information, and where data is stored. The diagram provides an overview and may be adapted based on the specific details of the system architecture.

Data flow diagram:



User Stories

Use the below template to list all the user stories for the product.

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Vitamin detection companies.	Project setup	USN 1	Set the development environment by downloading the required software and tools to start the vitamin detection using deep learning project.	Successfully downloaded the required software, tools and frameworks for the project.	High	Sprint 1
Data Scientist	Data Collection	USN 2	Collect diverse dataset of different types of images containing vitamin A, vitamin B, vitamin C, vitamin D and vitamin E.	Successfully collected the diverse dataset of images.	High	Sprint 1
Researchers	Data preprocessing	USN 3	Preprocess the collected dataset by resizing images, normalizing pixel values and splitting the dataset into train and test sets.	Successfully preprocessed the dataset.	High	Sprint 2
Educational Institutions	Model development	USN 4	Evaluate deep learning models such as CNN to select the best model for vitamin detection.	Successfully selected the best deep learning model.	High	Sprint 2
Academics	Training	USN 5	Implement data augmentation techniques to improve accuracy of the model.	Successfully trained the model.	Medium	Sprint 3
Web Developer	Model deployment and integration.	USN 6	Developing an UI Interface to detect the vitamin in the food item.	Successfully developed the UI interface.	High	Sprint 4
User	Testing the model	USN 7	Testing the model by uploading image of a food item and getting the required prediction.	Successfully got the correct prediction.	High	Sprint 4