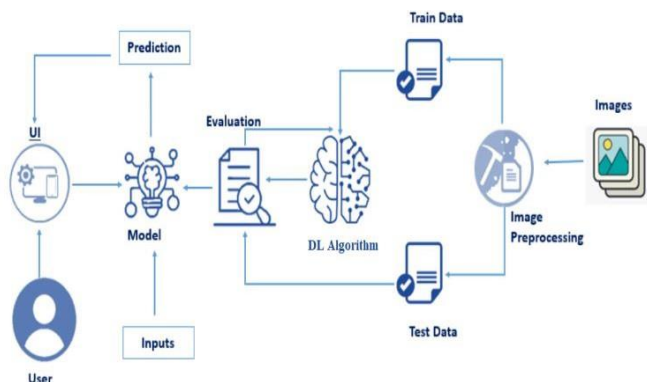


Project Design Phase-I

Proposed Solution

Date	24 September 2022
Team ID	PNT2022TMID45468
Project Name	Project – Fertilizers Recommendation System For Disease Prediction
Maximum Marks	2 Marks

Proposed Solution:

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	The analyzing phase of disease is complex, difficult to recommend fertilizer and it is a big task when proceeding in manual. This is a major constraint on the production and a major threat to food security.
2.	Idea / Solution description	<p>An automated system is introduced to identify different diseases on plants by checking the symptoms shown on the leaves of the plant. Deep learning techniques are used to identify the diseases and suggest the precautions that can be taken for those diseases.</p>  <pre>graph LR User((User)) --> UI((UI)) Inputs[Inputs] --> Model((Model)) UI --> Model Model --> Prediction[Prediction] Model --> Evaluation[Evaluation] Evaluation --> DL[DL Algorithm] DL --> TrainData[Train Data] DL --> TestData[Test Data] TestData --> ImagePreprocessing[Image Preprocessing] Images[Images] --> ImagePreprocessing ImagePreprocessing --> DL</pre> <p>The diagram illustrates the workflow of the proposed system. A user interacts with a UI, which feeds into a model along with various inputs. The model produces a prediction and undergoes an evaluation phase. This evaluation leads to a Deep Learning (DL) algorithm, which is trained on train data and tested on test data. The test data undergoes image preprocessing before being fed into the DL algorithm. The final output is a prediction, which is then used to recommend fertilizers.</p>
3.	Novelty / Uniqueness	Implementing Deep learning technology into this system increases the efficiency of the software.
4.	Social Impact / Customer Satisfaction	When everything is digital now, we can provide the same digitalized way of approach. By using this automated system, they can easily identify the disease and their respective fertilizer.
5.	Business Model (Revenue Model)	We can get paid to the users and we allow advertisements related to fertilizers in the revenue-based system.
6.	Scalability of the Solution	Creating a mobile app in addition to a web-based application.