# PROJECT DESIGN PHASE-II

## TECHNOLOGY STACK (ARCHITECTURE & STACK)

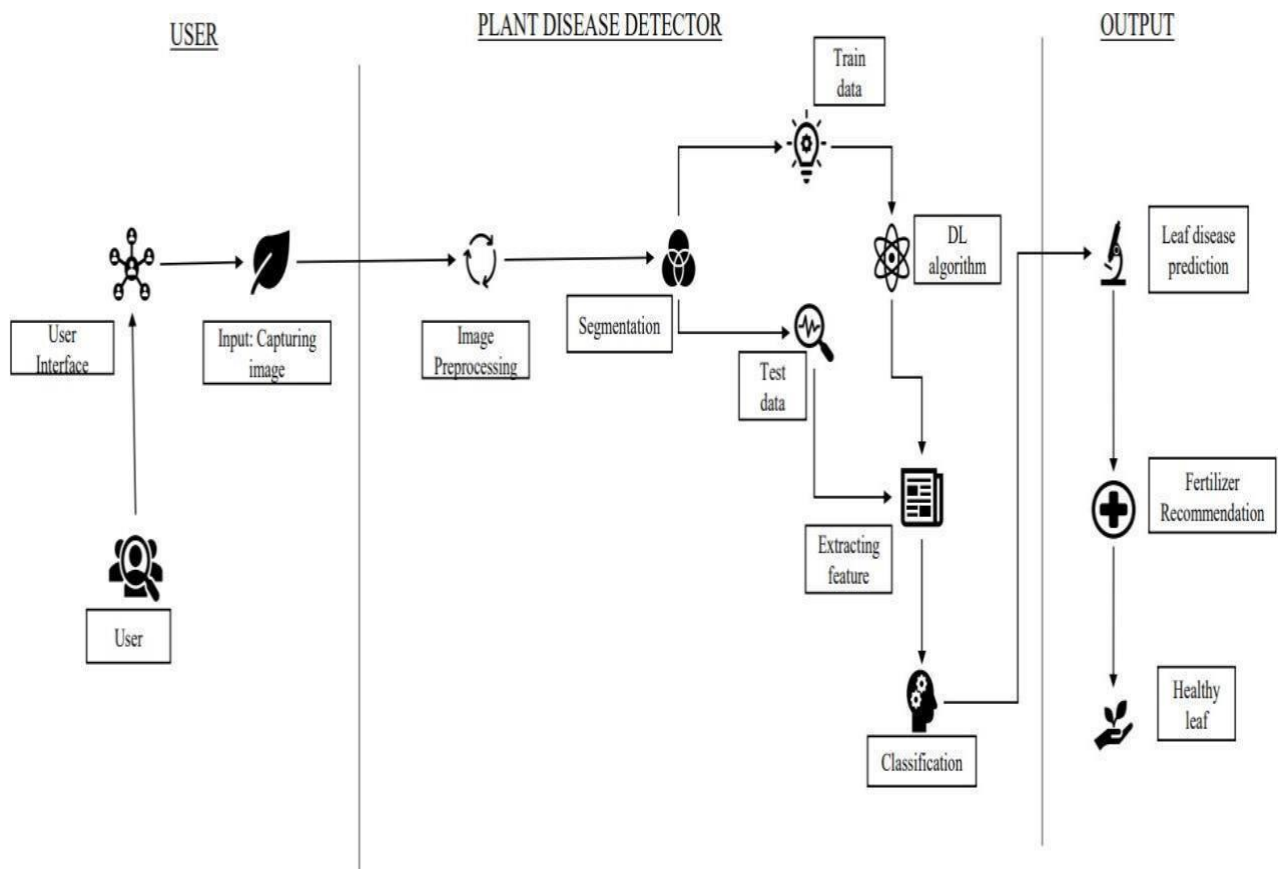| | |
|---|---|
| Date | 19 October 2022 |
| Team ID | PNT2022TMID24293 |
| Project Name | Fertilizer Recommendation System For Disease Prediction |
| Maximum Marks | 4 Marks |

## TECHNICAL ARCHITECTURE

## TABLE -1: COMPONENTS & TECHNOLOGIES

| S.NO | COMPONENT | DESCRIPTION | TECHNOLOGY |
|---|---|---|---|
| 1. | User Interface | How user interacts with the website. | HTML, CSS, etc.. |
| 2. | Disease Prediction | Here the disease in the leaf is predicted | Keras, TensorFlow, OpenCV, CNN. |
| 3. | Fertilizer Recommendation | The fertilizer is recommended for the predicted disease | User interface, HTML, CSS. |
| 4. | Dataset | The training and testing data are collectively stored | Kaggle.com, machine learning repository, etc.. |
| 5. | Database | Data Type, Configurations etc.. | My SQL etc. |
| 6. | File Storage | File storage requirements | IBM, Local File system. |
| 7. | Modules | Purpose of deep learning modules | Image Recognition Modules, etc.. |
| 8. | Cloud Database | Database Service on Cloud | IBM Cloud etc.. |
| 9. | Infrastructure (Server) | Application development on Local System-local server configuration | Local File system. |

## TABLE – 2: APPLICATION CHARACTERISTICS

| S.NO | CHARACTERISTICS | DESCRIPTION | TECHNOLOGY |
|---|---|---|---|
| 1. | Opensource Framework | List of the opensource framework used | Open source-PyCharm, Anaconda navigator, flask framework. |
| 2. | Scalable Architecture | Justify the scalable architecture | Anaconda Navigator |
| 3. | Availability | Justify the availability of website | Web application access to all. |
| 4. | Performance | Design consideration for the performance of the website | Convolutional Neural Networks and |