PROJECT NAME: *PLANT DISEASE DETECTION APP.*

SUBJECT: *" REGARDING IMPLEMENTATION APPROVAL "*

Group No: 15

Group Members:

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Project Guide *:*

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MODULES GOING TO IMPLEMENT:

- **KERAS:** *keras is an open-source software library that provides a python interface for artificial neural networks.*

- *keras act as an interface for tensorflow library.*

- **SCIKIT-LEARN**: *For scikit learn is a free software machine learning library for python language.*

- *It features various classification, regression and clustering algorithms including support vector machines, random forests, gradient boosting, k-means and DBSCAN, and is designed to interoperate with the Python numerical and scientific libraries NumPy and SciPy.*

- **MATPLOTLIB**: *Matplotlib is a plotting library for the Python programming language and its numerical mathematics extension NumPy OPENCV OPENCV(OPEN SOURCE COMPUTER VISION LIBRARY) IS AN OPEN SOURCE COMPUTER VISION AND MACHINE LEARNING SOFTWARE LIBRARY.*

- *It has C++, Python, Java and MATLAB interfaces and supports Windows, Linux, Android and Mac OS.*

- The library has more than 2500 optimized algorithms which can be used to detect and recognize faces, identify objects, classify human actions in videos, track camera movements, track moving objects, extract 3D models of objects, produce 3D point clouds from stereo cameras, stitch images together to produce a high resolution image of an entire scene, find similar images from an image database, remove red eyes from images taken using flash, follow eye movements, recognize scenery and establish markers to overlay it with augmented reality, etc.

- **SQLITE3:** *sqlite3 is a DBMS which can be integrated with python and has many useful features along with the basic CRUD operations.*

- ➢*It is a very light but useful system and is supported on a wide range of platforms.*

- ➢*It is also faster than many other DBMS systems*

- ***FUNCTIONAL REQUIREMENTS:***
- *OPERATING SYSTEM: WINDOWS*
- *ANDROID STUDIO*
- *JDK,SDK*
- *SQLITE3*
- *SPYDER IDE*
- *PROGRAMMING LANGUAGES:JAVA,PYTHON*

FEATURES:

- *The features of the plants range from color, shape and disease type.*
- *This can make a million odd diseases which the model has to characterize and put in the system.*
- *As the features are put into various categories the images are decoded to get the next result, which is the layered output.*
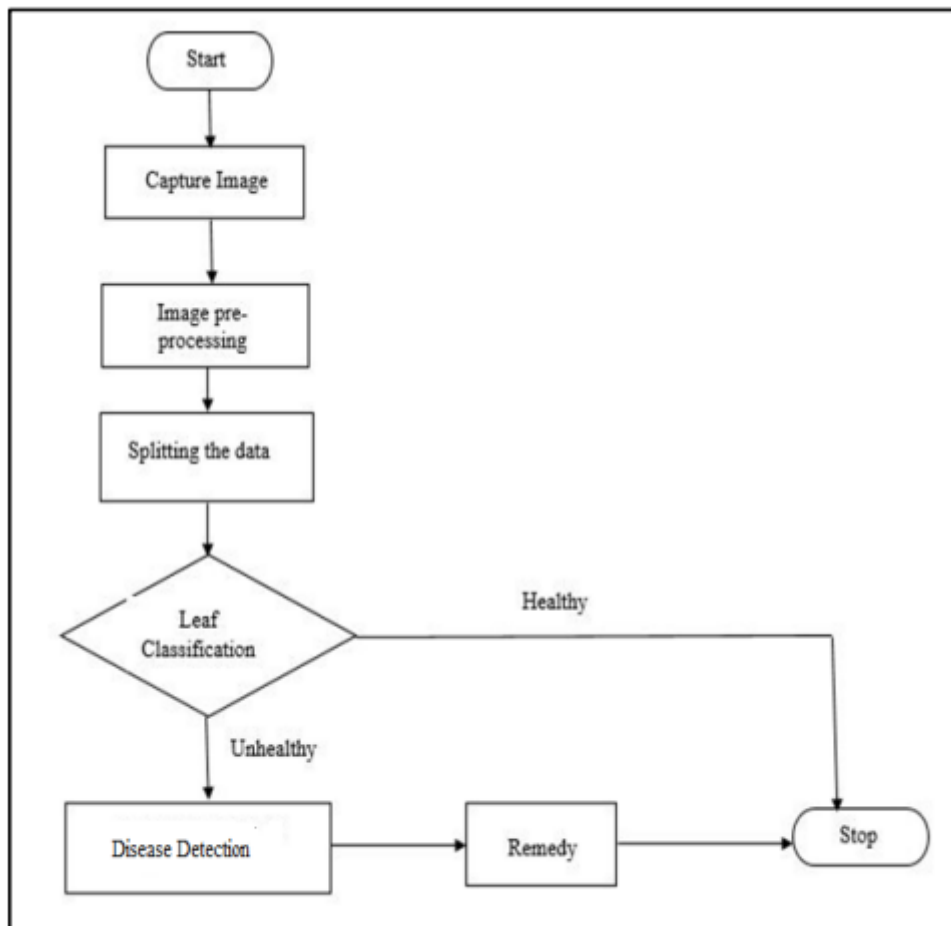
PROJECT MANAGEMENT METHODOLOGY: **DATA FLOW MODEL**

Fig. 3: Data Flow Diagram