Project Design Phase-II

Data Flow Diagram & User Stories

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| Date | 20 November 2023 |
| Team ID | PNT2022TMID592873 |
| Project Name | Project - Deep Learning Model for Detecting Diseases in Tea Leaves |
| 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 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.

Healthy

Train VGG 16 Model

Preprocessing

Get compressed domain representations of leaf images using the encode network of trained VGG 16 model

CNN based classification

Train a CNN Model

Using these compressed domain representations

Defect

D Data Gathering

Leaf Image for Testing

Preprocessing

Get compressed domain representations of leaf images using the encode network of trained VGG 16 model

Diseased

**User Stories**

| **User Type** | **Functional Requirement (Epic)** | **User Story Number** | **User Story / Task** | **Acceptance Criteria** | **Priority** | **Release** |
| --- | --- | --- | --- | --- | --- | --- |
| Customer (Web user) | Tea Leaf Detection Web App Model | TLD-1 | As a user, I can upload an image of tea leaves | The system accepts image uploads successfully | High | Sprint-1 |
| Customer (Web user) | Tea Leaf Detection Web App Model | TLD-2 | As a user, I can view the uploaded image | The uploaded image is displayed on the web interface | Medium | Sprint-1 |
| Customer (Web user) | Tea Leaf Detection Web App Model | TLD-3 | As a user, I can initiate the tea leaf detection process | The system processes the uploaded image for tea leaf detection | High | Sprint-1 |
| Customer (Web user) | Tea Leaf Detection Web App Model | TLD-4 | As a user, I can view the results of the detection | The detected tea leaves are highlighted or labeled on the image | High | Sprint-1 |
| Customer (Web user) | Tea Leaf Detection Web App Model | TLD-5 | As a user, I can download the results | The system provides an option to download the detection results | Medium | Sprint-2 |
| Administrator | Tea Leaf Detection Web App Model | TLD-6 | As an administrator, I can manage user accounts | The administrator can view, edit, or deactivate user accounts | High | Sprint-2 |
| Administrator | Tea Leaf Detection Web App Model | TLD-7 | As an administrator, I can view detection history | The system provides a log of tea leaf detection history | Medium | Sprint-2 |
| Administrator | Tea Leaf Detection Web App Model | TLD-8 | As an administrator, I can monitor system performance | The system provides performance metrics and logs | High | Sprint-2 |