Project Design Phase-II
Data Flow Diagram & User Stories
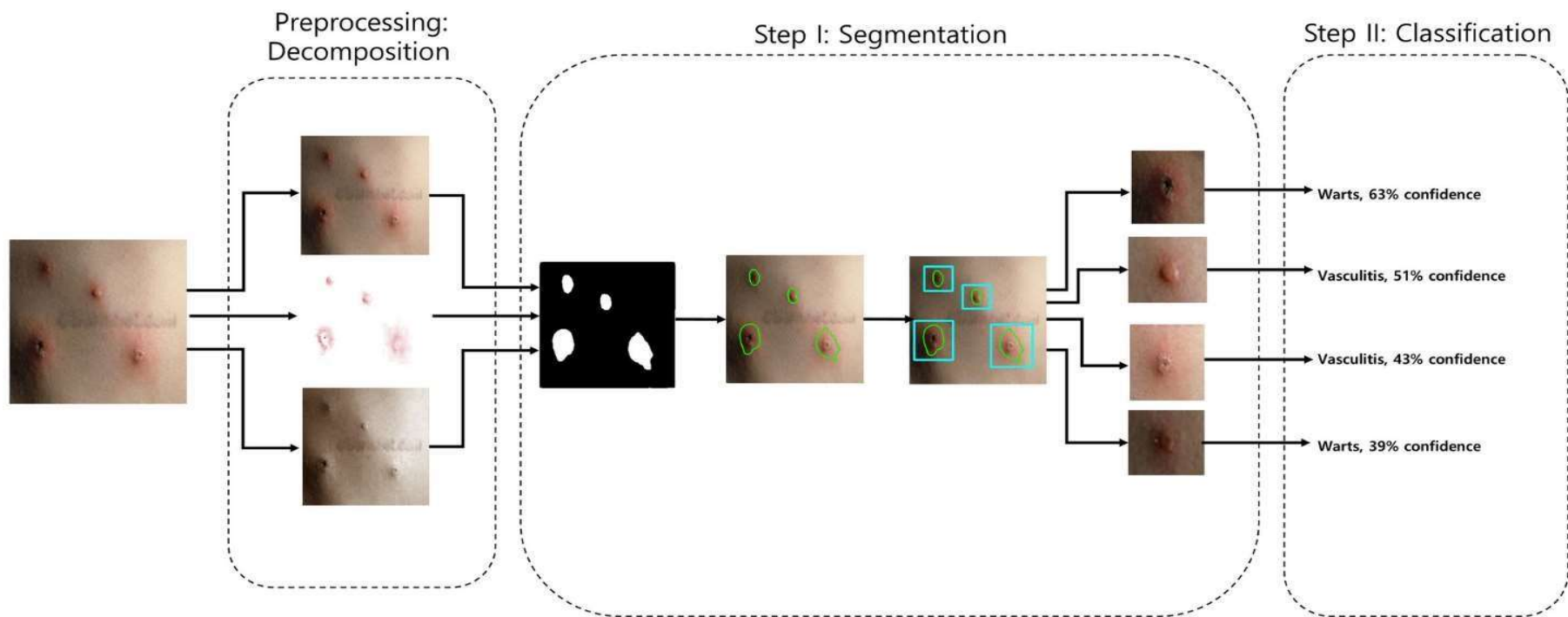
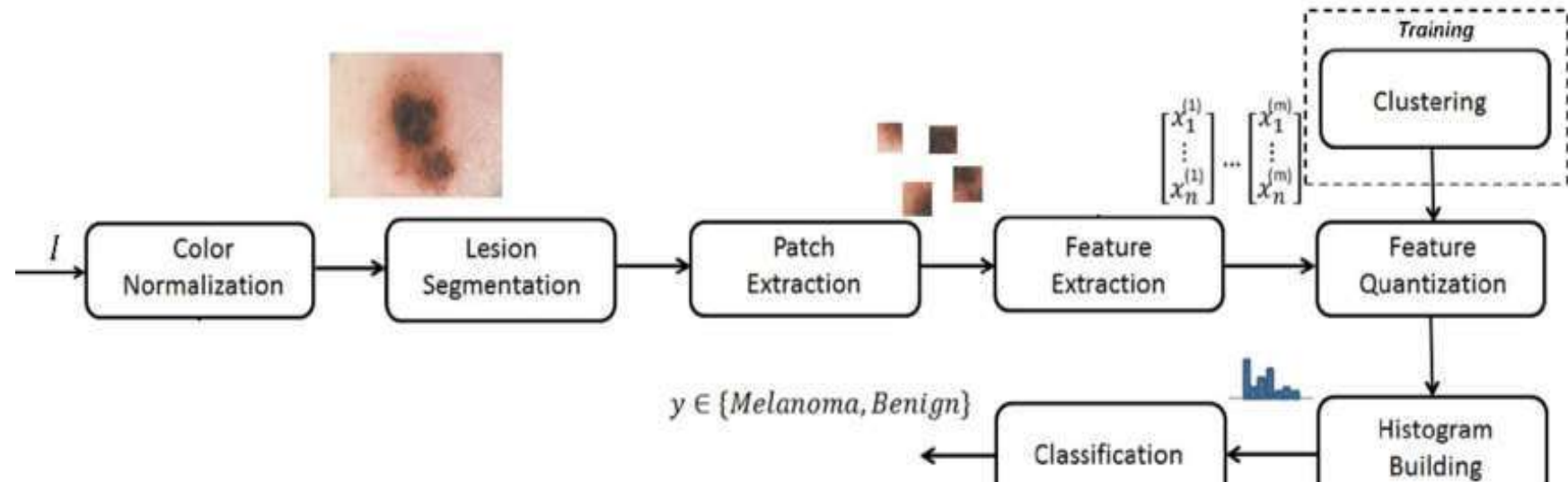| Date	03 October 2022
Team ID	PNT2022TMID42059
Project Name	AI based localization and classification of skin disease with Erythema
Maximum Marks	4 Marks

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.
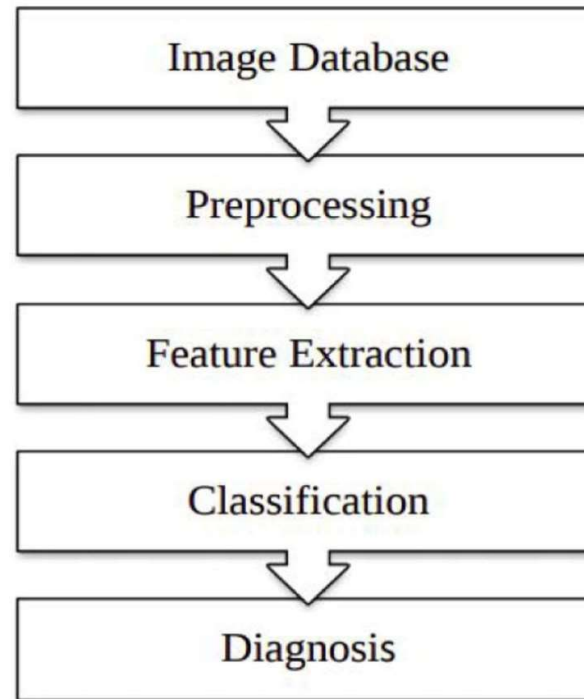
Example: DFD Level 0 (Industry Standard)

Segmentation -I

Preprocessing: Decomposition

Step I: Segmentation

Step II: Classification

Warts, 63% confidence

Vasculitis, 51% confidence

Vasculitis, 43% confidence

Warts, 39% confidence

Segmentation -II

I → Color Normalization → Lesion Segmentation → Patch Extraction → Feature Extraction → Feature Quantization

Training: Clustering

$\begin{bmatrix} x_1^{(1)} \\ \vdots \\ x_n^{(1)} \end{bmatrix} \cdots \begin{bmatrix} x_1^{(m)} \\ \vdots \\ x_n^{(m)} \end{bmatrix}$

$y \in \{Melanoma, Benign\}$ ← Classification ← Histogram Building

Segmentation - III

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
Customer (Mobile user)	Registration	USN-1	As a user, I can register for the application by entering my email, password, and confirming my password.	I can access my account / dashboard	High	Sprint-1
		USN-2	As a user, I will receive confirmation email once I have registered for the application	I can receive confirmation email & click confirm	High	Sprint-1

		USN-3	As a user, I can register for the application through Facebook	I can register & access the dashboard with Facebook Login	Low	Sprint-2
		USN-4	As a user, I can register for the application through Gmail		Medium	Sprint-1
	Login	USN-5	As a user, I can log into the application by entering email & password		High	Sprint-1
	Dashboard					
Customer (Web user)			Among the images obtained through Denet, the erythema of 100 images was masked by dermatologists, to be used as a ground truth. For segmentation, 60 images were used for training, and 40 images were used for testing.		low	Sprint-3
Customer Care Executive	Execution	USN-6	In addition, the test set for classification was split before segmentation cropping to prevent the subsections of one image from appearing in both the training and testing sets.			Sprint-2
Administrator	Classification	USN-7	One of the significant merits of the Denet dataset is that it was created and is maintained by a diverse group of dermatologists. The images in each top-level category are independent as they are images of different patients at distinct locations taken with varying devices			Sprint -4