

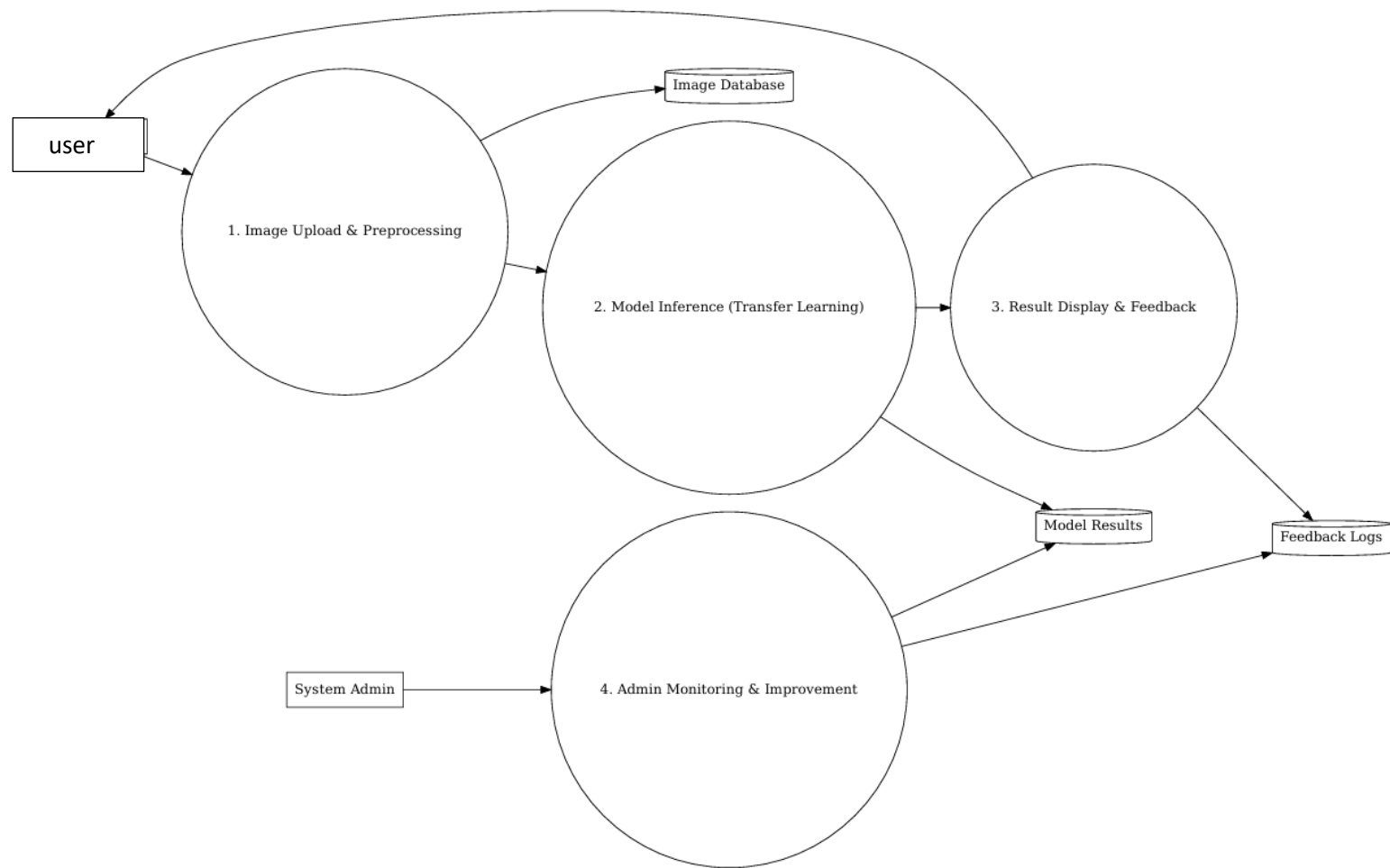
Project Design Phase-II
Data Flow Diagram & User Stories

Date	31 January 2025
Team ID	LTVIP2026TMIDS82253
Project Name	Deep Learning Fundus Image Analysis for Early Detection of Diabetic Retinopathy
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: [\(Simplified\)](#)



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
Doctor / Healthcare Professional	Registration	DR-US-1	As a user, I can register using my email and password to access the DR detection system.	User can log in after registering with valid credentials.	High	Sprint-1
Doctor / Healthcare Professional	Registration	DR-US-2	As a user, I receive a confirmation email after successful registration.	Confirmation email is received and account is verified.	High	Sprint-1
Doctor / Healthcare Professional	Login	DR-US-3	As a user, I can log in using my registered credentials.	User is redirected to the dashboard after login.	High	Sprint-1

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance Criteria	Priority	Release
Doctor / Healthcare Professional	Image Upload	DR-US-4	As a user, I can upload retinal fundus images for analysis.	System accepts fundus image and confirms upload.	High	Sprint-2
Doctor / Healthcare Professional	Prediction	DR-US-5	As a user, I can view whether diabetic retinopathy is detected from the uploaded image.	DR detection result is displayed with confidence score.	High	Sprint-2
Doctor / Healthcare Professional	Severity Classification	DR-US-6	As a user, I can see the severity level of diabetic retinopathy.	System displays DR stage (No DR, Mild, Moderate, Severe, Proliferative).	High	Sprint-2
Doctor / Healthcare Professional	Explainability	DR-US-7	As a user, I can view heatmaps highlighting affected retinal regions.	Grad-CAM or heatmap is displayed with prediction.	Medium	Sprint-3
Doctor / Healthcare Professional	View History	DR-US-8	As a user, I can view past uploaded images and prediction history.	History is displayed with date, result, and severity.	Medium	Sprint-3
Admin	User Management	DR-US-9	As an admin, I can view and manage registered users.	Admin panel shows user list with management options.	Medium	Sprint-2

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance Criteria	Priority	Release
Admin	Monitor Predictions	DR-US-10	As an admin, I can monitor model prediction logs and performance.	Dashboard shows prediction counts and accuracy trends.	Medium	Sprint-3
Admin	Model Improvement	DR-US-11	As an admin, I can update datasets and retrain the model.	System supports dataset upload and model retraining.	High	Sprint-4