**Project Design Phase-II**
**Data Flow Diagram & User Stories**

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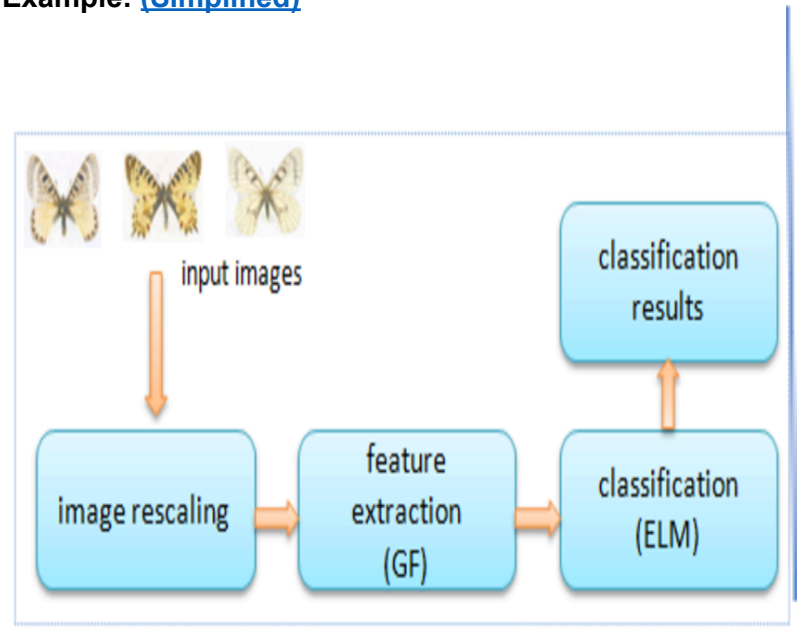
| Date | 27th January 2025 |
| Team ID | LTVIP2025TMID36392 |
| Project Name | Enchanted Wing: Marvels of Butterfly Species |
| Maximum Marks | 4 Marks |

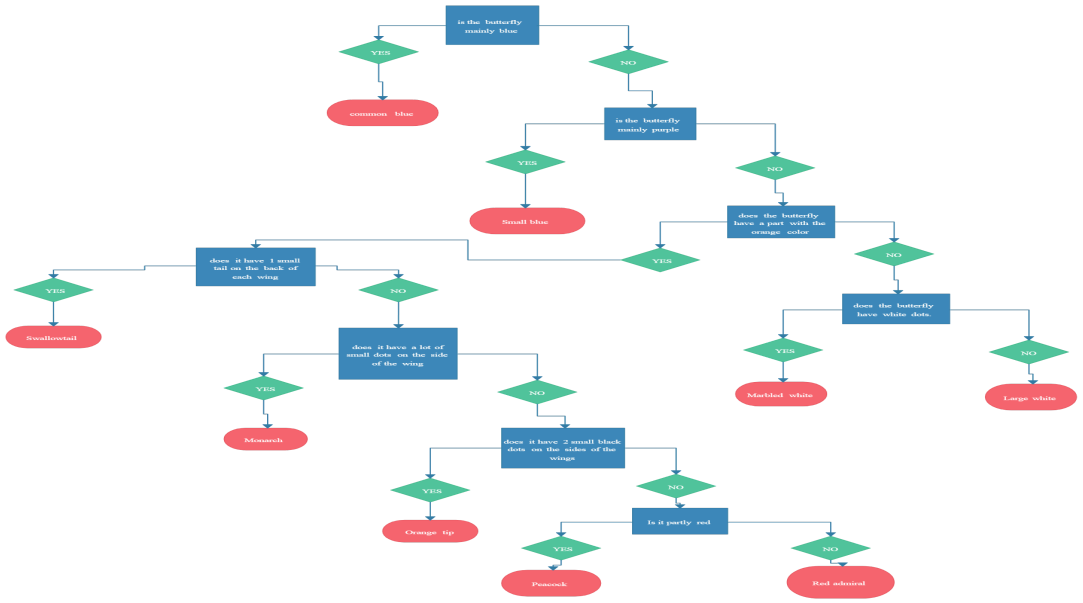
**Data Flow Diagrams:**

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)**




Example: DFD Level 0 (Industry Standard)



**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 |
|---|---|---|---|---|---|---|
| **User (Web)** | Upload | USN-1 | As a user, I can upload a butterfly image for classification. | Image is successfully uploaded and displayed on screen. | High | Sprint-1 |
| **User (Web)** | Prediction | USN-2 | As a user, I can get the butterfly species name after uploading an image. | I receive the correct predicted butterfly species name on screen. | High | Sprint-1 |
| **User (Web)** | Prediction Confidence | USN-3 | As a user, I can see the prediction confidence level. | A confidence percentage or top-3 predictions are shown along with the result. | Medium | Sprint-2 |
| **User (Web)** | Error Handling | USN-4 | As a user, I get a message if I upload an invalid file (not an image). | Non-image files show a proper error message and don’t break the app. | Medium | Sprint-2 |
| **Developer (Admin)** | Model Integration | USN-5 | As a developer, I can load and use the trained MobileNetV2 model in the app. | Model loads without errors and gives consistent outputs. | High | Sprint-1 |
| **Developer (Admin)** | Deployment | USN-6 | As a developer, I can deploy the app via GitHub and share the link. | App is publicly accessible through a shared deployment link. | High | Sprint-2 |
| **Customer Care Executive (Reviewer)** | Result Explanation | USN-7 | As a reviewer, I can verify if the predicted label matches the actual image species. | Prediction results are understandable and match with visual cues. | Medium | Sprint-3 |

| User Type | Functional Requirement (Epic) | User Story Number | User Story / Task | Acceptance Criteria | Priority | Release |
|---|---|---|---|---|---|---|
| **Administrator** | Label Mapping | USN-8 | As an admin, I can manage and update the class label mappings (`class_indices.pkl`). | Labels correspond accurately to prediction indices in the output. | Medium | Sprint-3 |
| **User Type** | **Functional Requirement (Epic)** | **User Story Number** | **User Story / Task** | **Acceptance Criteria** | **Priority** | **Release** |
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| **User (Web)** | Prediction | USN-2 | As a user, I can get the butterfly species name after uploading an image. | I receive the correct predicted butterfly species name on screen. | High | Sprint-1 |
| **User (Web)** | Prediction Confidence | USN-3 | As a user, I can see the prediction confidence level. | A confidence percentage or top-3 predictions are shown along with the result. | Medium | Sprint-2 |