

Project Design Phase-II
Technology Stack (Architecture & Stack)

Date	09 November 2023
Team ID	Team-592393
Project Name	Dog Breed Identification using Transfer Learning
Maximum Marks	4 Marks

Technical Architecture:

The Deliverable shall include the architectural diagram as below and the information as per the table1 & table 2

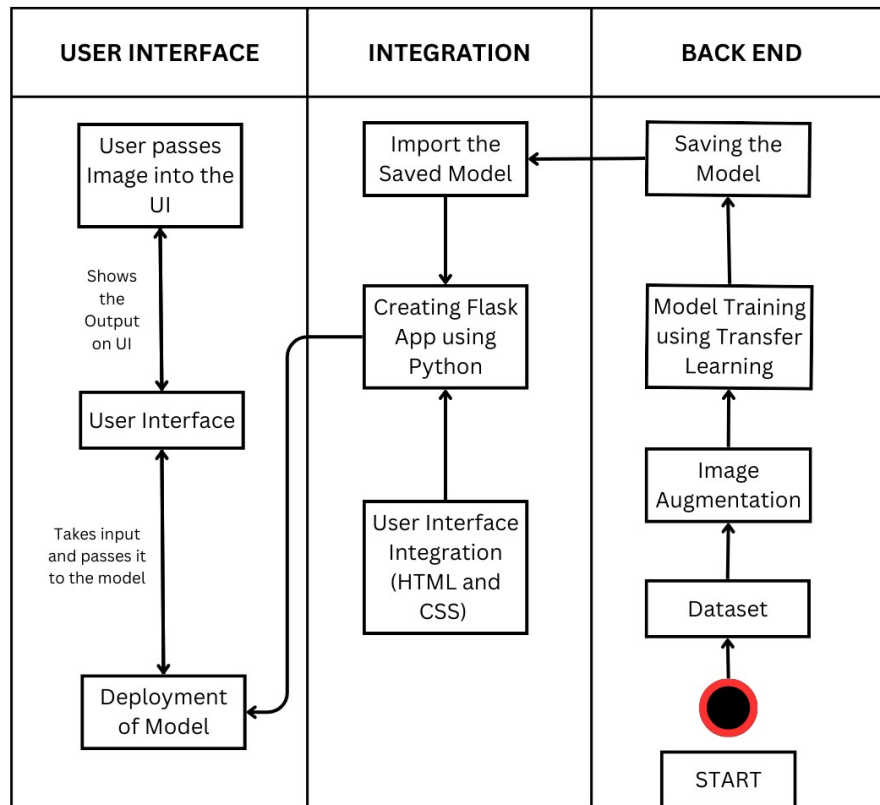


Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1	User Interface	Interface for user interaction	Web UI (HTML, CSS, JavaScript)
2	Application Logic-1	Core logic for image processing and classification	Python (TensorFlow)
3	Database	Dataset storage based on the problem statement	File Manager
4	File Storage	Storage for dataset	Local System
5	Framework	Integration of frontend and backend	Python Flask
6	Deep Learning Model	Utilized for dog breed classification	VGG19, Transfer Learning, etc.
7	Infrastructure	Deployment on Local System / Cloud	Local Server Configuration

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1	Open-Source Frameworks	Python's Flask used as the open-source framework	Python's Flask
2	Security Implementations	Encryption (e.g., SHA-256), Access Controls (IAM), OWASP	Encryption (SHA-256), IAM Controls, OWASP
3	Scalable Architecture	Utilization of Microservices for scalable architecture	Microservices
4	Availability	Load balancing and distributed servers for availability	Load Balancers, Distributed Server Setup
5	Performance	Caching mechanisms, use of CDNs, optimization for performance	Caching, Content Delivery Networks (CDNs)