

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

Date	17 October 2023
Team ID	Team - 591740
Project Name	Dog Breed Identification Using Transfer Learning
Maximum Marks	4 Marks

Technical Architecture:

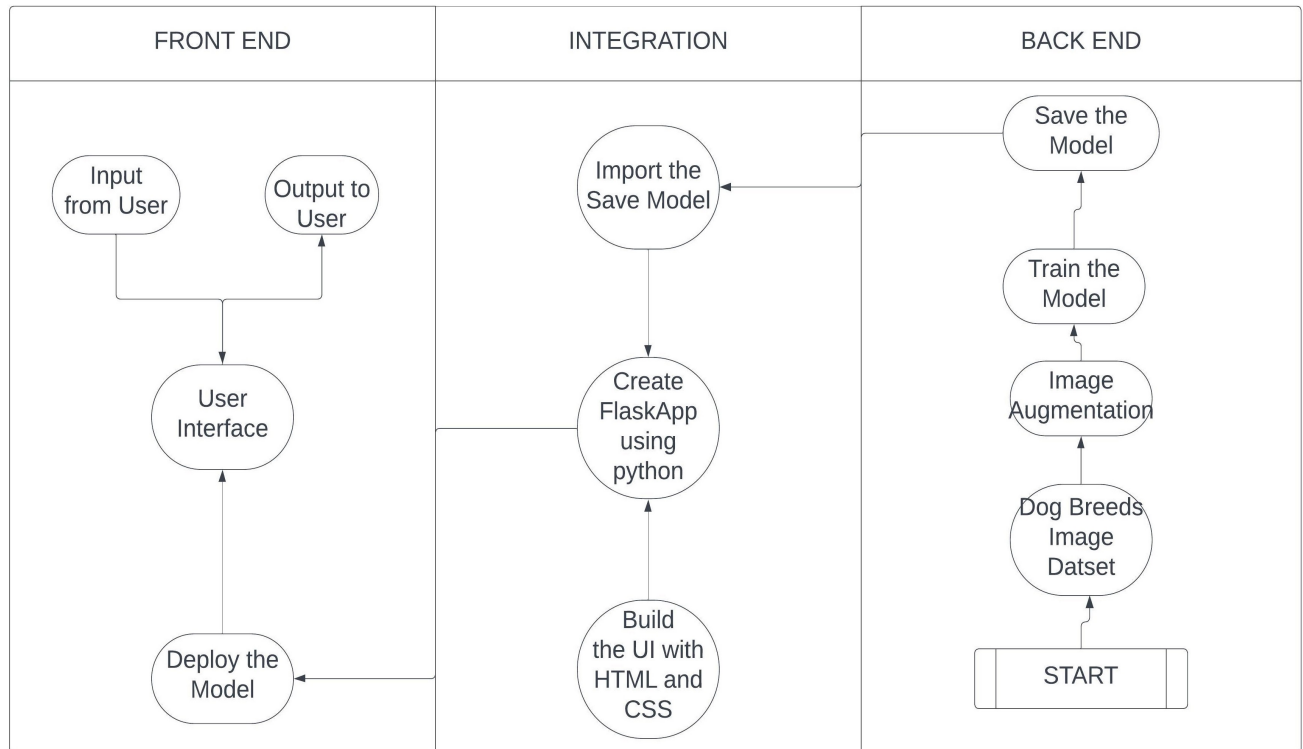


Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1	User Interface	User interacts with Web UI application.	HTML, CSS, JavaScript
2	Application Logic	User need to upload an dog image to predict the dog	Python
3	File Storage	File storage requirements	GitHub
5	Deep Learning Model	Prediction of Dog Breed	VGG19 Model
6	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: Cloud Server Configuration :	GitHub

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1	Open-Source Frameworks	List the open-source frameworks used	Technology of Opensource framework
2	Security Implementations	List all the security / access controls implemented, use of firewalls etc.	e.g. SHA-256, Encryptions, IAM Controls, OWASP etc.
3	Scalable Architecture	Justify the scalability of architecture (3 – tier, Micro-services)	The 3-tier architecture can be scaled as per the requirement
4	Availability	Justify the availability of applications	Load Balancers are used in Cloud Deployment
5	Performance	Design consideration for the performance of the application (number of requests per sec, use of Cache, use of CDNs)	Utilize HTTP caching headers to control client-side caching of web resources.

References:

<https://c4model.com/>

<https://aws.amazon.com/architecture>

<https://medium.com/the-internal-startup/how-to-draw-useful-technical-architecture-diagrams-2d20c9fda90d>