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

Date	19 November 2023
Team ID	Team-593126
Project Name	Lip Reading using Deep Learning
Maximum Marks	4 Marks

Technical Architecture:

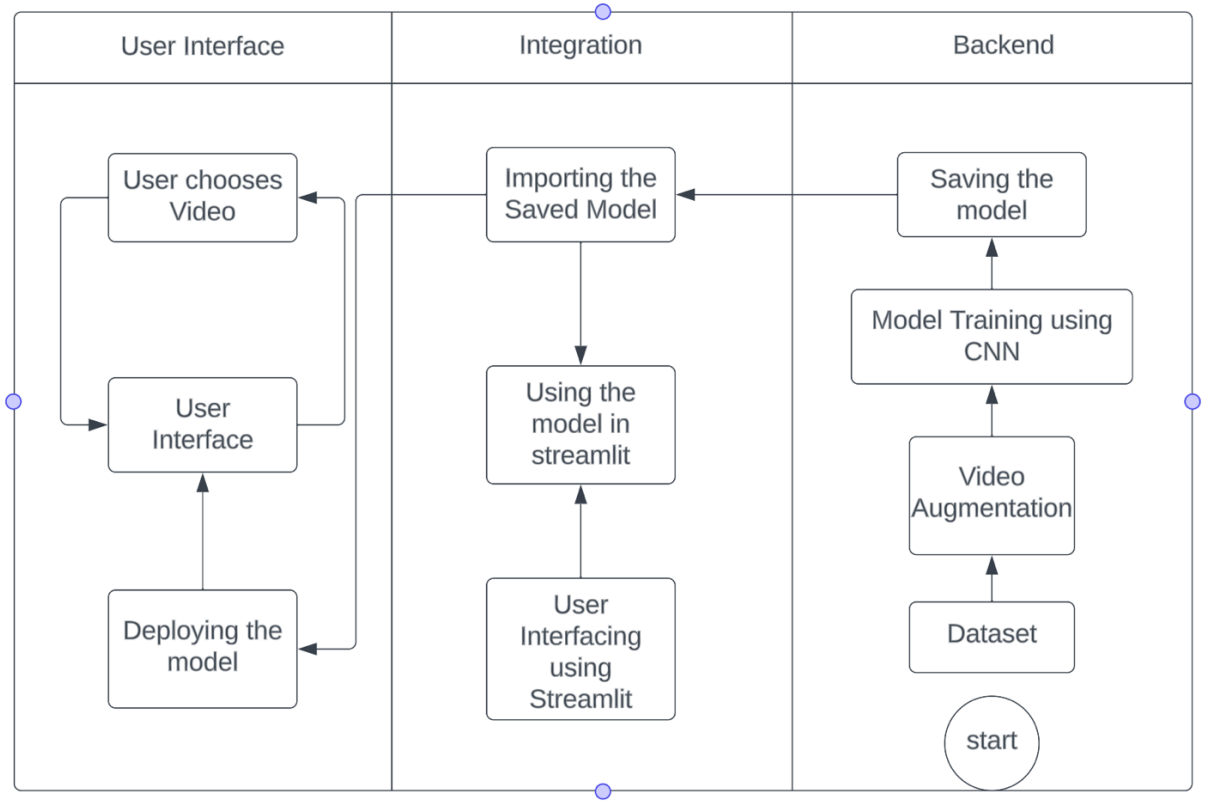

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	For Integrating the ML model in a webapp I have used streamlit which is an opensource framework in python.	Streamlit
2.	Application Logic-1	Sequential model, functions to load video, alignments, decoders	Python
3.	Database	Mp4 configuration (video)	Local Video player
4.	File Storage	Videos stored in local storage	nvme
5.	Machine Learning Model	Lip Reading Model	Convolution Neural Network (Lip Reading)
6.	Infrastructure	Application Deployment on Local System Local Server Configuration: Apple M1	Local using streamlit framework on python

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Tensorflow, numpy, streamlit, OpenCV, typing, matplotlit	python
2.	Scalable Architecture	3 – tier, Micro-services (TBA)	Granular Scaling
3.	Availability	Microservices, load balance (TBA)	Tensorflow, nginx
4.	Performance	Caching, balancing, scaling(TBA)	Cloudflare, nginx