Project Planning Phase-I

Technology Stack (Architecture & Stack)

Date	16 November 2023
Team ID	Team-592536
Project Name	AI Body Language Detector Using Media Pipe
Maximum Marks	4 Marks

Technical Architecture:

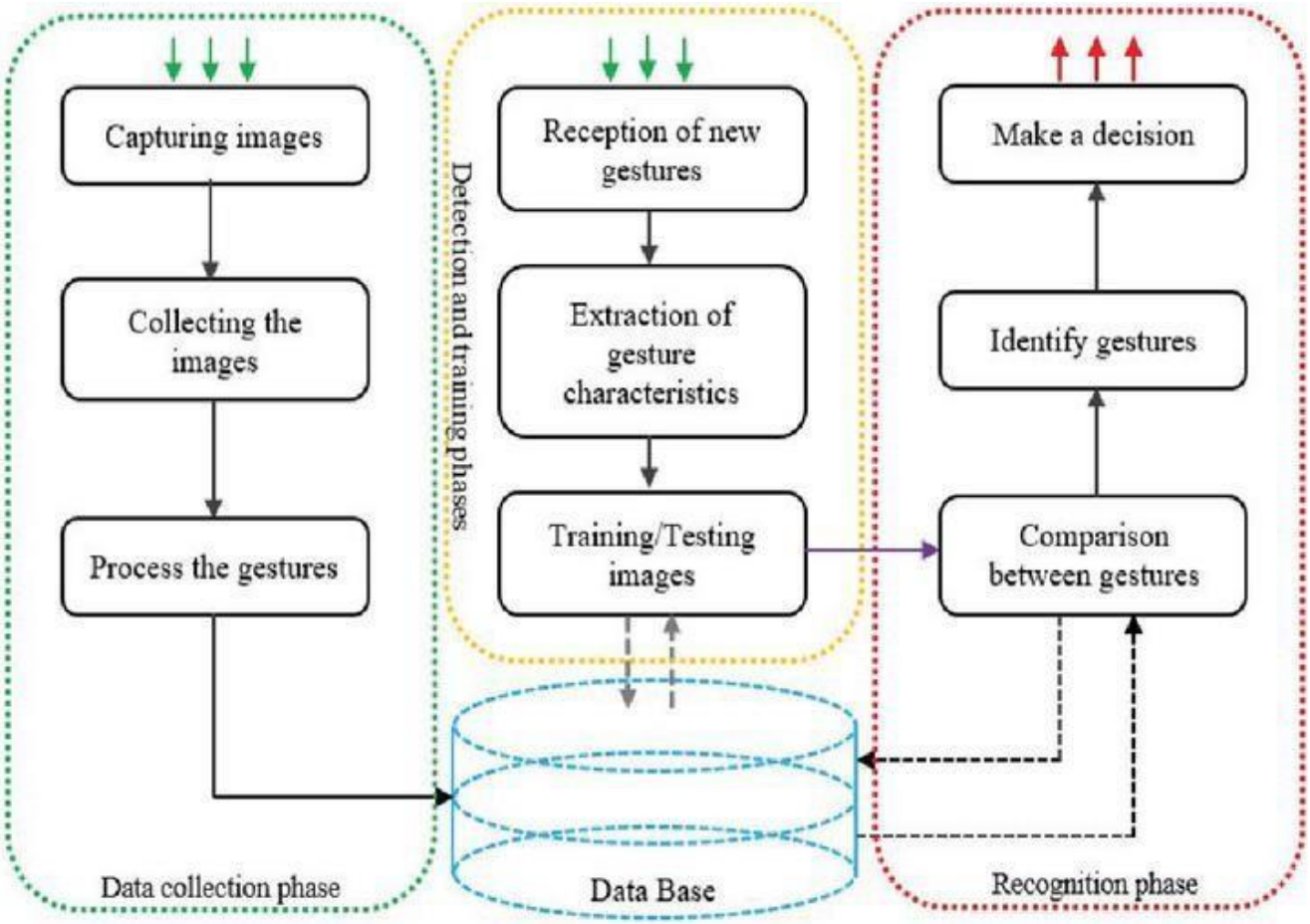

Table-1: Components & Technologies:

S.No	Component	Description	Technology
1.	Computer Vision	Processes visual information from images or video.	OpenCV
2.	Feature Extraction	Identifies patterns in body language cues.	Pose Estimation Models, Facial Expression Recognition Models.
3.	Database	Collecting the Dataset Based on the Body Language	File Manager, MySQL, NoSQL, etc.
4.	File Storage/ Data	File storage requirements for Storing the dataset	Local System, Google Drive Etc
5.	Machine Learning Frameworks	Provides tools for building and training machine learning models.	TensorFlow or PyTorch
6.	Deep Learning Model	Neural networks for image and sequence analysis	CNN, Transfer Learning etc.
7.	User Interface	Provides a graphical interface for user interaction.	Streamlit

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Utilizes open-source frameworks, fostering collaboration and community-driven development.	TensorFlow or PyTorch for machine learning, OpenCV for computer vision.
2.	Security Implementations	Incorporates measures to protect user data and maintain the integrity of the system.	SSL/TLS for secure communication, encryption of sensitive data, secure APIs.
3.	Scalable Architecture	The system is designed to handle varying workloads, adapting to increased data and user demands.	Cloud Services

4.	Availability	Ensures the system is consistently accessible, minimizing downtime and disruptions.	Distributed systems, load balancing, redundancy in cloud architecture.