

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

Date	02 November 2022
TeamID	PNT2022TMID9489
ProjectName	Project – Real time communication using AI for specially abled
MaximumMarks	4 Marks

Technical Architecture:

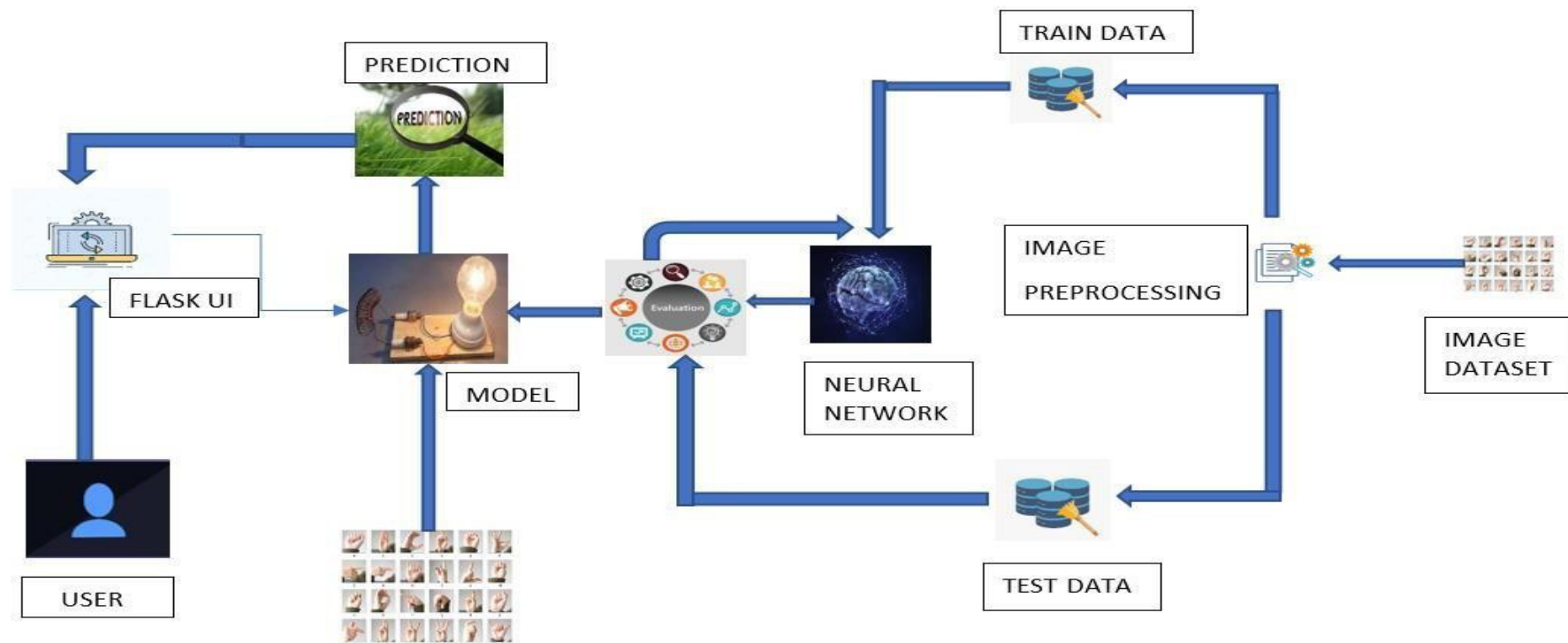


Table- 1:Components&Technologies:

S.No	Component	Description	Technology
1.	UserInterface	How user interacts with application e.g.WebUI,Mobile App,Chatbotetc.	HTML, CSS, JavaScript / Angular Js /ReactJsetc.
2.	ApplicationLogic- 1	It deals with variety of frameworks, libraries andsupportsrequiredto developthe project	Java /Python
3.	ApplicationLogic- 2	Helpsinconvertinghumanvoiceintowritten words, In simple it is used to convert speech totext.	IBMWatsonSTTservice
4.	ApplicationLogic- 3	Provides fast ,consistent and accurate answersduringtheexecution phaseof theproject	IBMWatsonAssistant
5.	Database	Itcanbenumerical,categoricalortime- seriesdata	MySQL, NoSQL,etc.
6.	CloudDatabase	Enables the user to use host database withoutbuyingthe additionalhardware	IBMDB2,IBMCloudantetc.
7.	FileStorage	File storage should be highly flexible, scalable andeffective	IBM Block Storage or Other StorageServiceorLocalFilesystem
8.	ExternalAPI- 1	Usedtoaccesstheinformation inthecloud	IBMWeatherAPI,etc.
9.	ExternalAPI- 2	Used to access the information for data drivendecisionmaking	AadharAPI,etc.
10.	MachineLearningModel	Machine Learning Model deals with variousalgorithmsthatareneededfortheimplem entation	Real time communication using AI forspecially abled
11.	Infrastructure(Server/Cloud)	Application Deployment on Local System / CloudLocalServerConfiguration: Install the windows version and execute theinstaller SelectAPPACHEtoinstallwebserver	Local,CloudFoundry,Kubernetes, etc.

		CloudServerConfiguration: Thisserverdealswiththeadditionalstorage	
--	--	--	--

Table- 2:ApplicationCharacteristics:

S.No	Characteristics	Description	Technology
1.	Open- SourceFrameworks	Theframeworks usedare	Tensor flow, Theano, RNN, PyTorch,Caffe2
2.	SecurityImplementations	the security / access controls implemented, use offirewalls etc.	Identify, Prevent andRespond
3.	ScalableArchitecture	the scalability of architecture (3 – tier, Micro- services)	Data , models, operate at size, speedandcomplexity
4.	Availability	the availability of application (e.g. use of loadbalancers,distributed serversetc.)	Image and facial recognition, lipreading, text summarization, real timecaptioning
5.	Performance	Designconsiderationforthe performanceofthe application (number of requests per sec, use ofCache, useofCDN’ s)etc.	Full and effective participation , equalityof opportunity,accessibility