

## Project Planning Phase

### Project Milestone & Activity List

Date	23rd October 2022
Team ID	PNT2022TMID35886
Project Name	Project: Real Time Communication System Powered by AI for Specially Abled
Maximum Marks	4 Marks

#### Milestone List:

Milestone Number	Milestone Name	Duration	Submission Dates
MN – 01	Ideation Phase	3 Weeks	21st September, 2022
MN – 02	Project Design Phase – I	2 Weeks	2nd October, 2022
MN – 03	Project Design Phase – II	2 Weeks	20th October, 2022
MN – 04	Project Planning Phase	1 Week	2nd November, 2022
MN – 05	Project Development Phase	3 Weeks	31st October, 2022
MN – 06	Pre-requisites	1 Week	30th October, 2022
MN – 07	Project Structure	1 Week	31st October, 2022
MN – 08	Data Collection	2 Days	1st November, 2022
MN – 09	Image Pre-processing	4 Days	1st November, 2022
MN – 10	Model Building	1 Week	
MN – 11	Test the model	2 Days	
MN – 12	Application Building	1 Week	
MN – 13	Train CNN Model on IBM	2 Days	

#### Activity List:

Milestone Number	Activity Number	Activity Name	Description	Submission Dates
MN – 01	AN – 01	Literature survey	Some Journal papers which gives a comprehensive summary of previous research on the topic.	20th October,2022
	AN – 02	Empathy Map	Empathy map is a collaborative visualization used to articulate what we know about the particular user.	10th September,2022
	AN – 03	Brain – Storming	It is a group problem solving method that involves the spontaneous contribution of creative ideas and solutions.	21st September,2022
	AN – 04	Problem Statements	It is a concise description of an issue to be addressed or a condition to be improved upon.	20th October, 2022

MN – 02	AN – 05	Proposed Solution	It is a concise and coherent summary of a proposed research or application which relates with the current situation with the desired results to describe benefits.	24th September,2022
	AN – 06	Problem Solution Fit	It is a solution which solves the problem of a customer which you have identified.	2nd October,2022
	AN – 07	Solution Architecture	It is a architectural description of a proposed solution which gives the exact description of the methodology of how the process gonna happen step by step.	1st October,2022
MN – 03	AN – 08	Customer Journey Map	It is a visual representation of a customer journey which tells you the real time experience of the customer of using using product.	16th October,2022
	AN – 09	Solution Requirements	It describes the specific characteristics that a product must have to meet the need of the stakeholders.	16th October,2022
	AN – 10	Data Flow Diagram	It is a visual or graphical representation using a standardized set of symbols to describe the operations through data movements.	18th October,2022
	AN – 11	Technology Stack	It is a combination of tools, services and applications used by developers to build a product.	18th October,2022
MN – 04	AN – 12	Prepare Milestone & Activity List	Prepare the milestone and the activity list of the project whic schedules the activity.	2nd November,2022
	AN – 13	Sprint Delivery Plan	Describes about the Product Backlog, Sprint Planning, Stories, Story points using Agile Software Methodologies such as Scrum, JIRA etc.,	2nd November,2022
MN – 05	AN – 14	Delivery of Sprint – 1	Completed Data Collection, Data Preprocessing and Augmentation, and Split data into Train, Validation and Test sets	2nd November, 2022
	AN – 15	Delivery of Sprint – 2		
	AN – 16	Delivery of Sprint – 3		
	AN – 17	Delivery of Sprint – 4		
MN – 06	AN – 18	Pre-requisites	Download all the necessary software required to solve the problem at hand	30th October, 2022
MN – 07	AN – 19	Project Structure	Organize the project into proper files and folders for easy deployment and debugging	31st October, 2022
MN – 08	AN – 20	Data Collection	Collect relevant data that is required to solve the given problem	1st November, 2022

	AN – 21	Create Train and Test Folders	Split the data into Train and Test data. Train data will be used to train our model and the trained model will be tested on the Test data	1st November, 2022
MN – 09	AN – 22	Image Pre-processing	Data images are subjected to augmentation like rotation, flip, zoom etc	1st November, 2022
	AN – 23	Import Image Data Generator Library.	Generate batches of augmented images in a random fashion	1st November, 2022
	AN – 24	Apply Image Data Generator functionality.	The train dataset is split into Train and Validation set which is used to train and validate the model respectively at each epoch	1st November, 2022
MN – 10	AN – 25	Import the required model building libraries	Downloading and adding the necessary Python libraries to the project	
	AN – 26	Initialize the model	Define the type of model	
	AN – 27	Add the convolution layer	Initialize and add a Convolutional layer to the model with appropriate parameters like filters, kernel size etc	
	AN – 28	Add the pooling layer	Initialize and add a Pooling layer, either Max or Min or Avg pooling, to the model with appropriate parameters like kernel size etc	
	AN – 29	Add the flatten layer	Add the flatten layer to convert the outputs into 1 Dimension	
	AN – 30	Adding the dense layers	Adding the Fully Connected Layer for the final predictions	
	AN – 31	Compile the model	Compile the model along with all these layers and specify the metrics, loss function and optimizer	
	AN – 32	Fit and save the model.	Load the Train data onto the model to train it and save it after training	
MN – 11	AN – 33	Test the model	Use the Test data to evaluate the model for metrics like Precision, Recall, Accuracy and F-Measure	
	AN – 34	Import the packages and load the saved model.	After saving the model use the necessary library/package to load the saved model and to reuse it	
	AN – 35	Load the test image, pre-process it and predict.	Load the test data, preprocess it and feed it to the model for predictions	
MN – 12	AN – 36	Application Building	Build a Web application to deploy the model	
	AN – 37	Build a flask application.	Use the Flask framework as a server and to host the webpages	
	AN – 38	Build the HTML page.	Build a login page and Dashboard as the UI	
MN – 13	AN – 39	Register for IBM Cloud.	Go to IBM cloud and register	
	AN – 40	Train CNN Model on IBM	Train the saved model on IBM Cloud	

