**Project Planning Phase**

**Project Milestone & Activity List**

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| --- | --- |
| Date | 18October 2022 |
| Team ID | PNT2022TMID44057 |
| Project Name | Real-Time Communication System Powered by AI for Specially Abled |
| Maximum Marks | 8 Marks |

**Milestone List:**

| **Milestone Number** | **Milestone Name** | **Duration** | **Submission Dates** |
| --- | --- | --- | --- |
| MN-01 | Ideation Phase | 3 Weeks | 17 sep 2022 |
| MN-02 | Project Design Phase-1 | 2Weeks | 01 oct 2022 |
| MN-03 | Project Design Phase-2 | 2Weeks | 15 oct 2022 |
| MN-04 | Project Planning Phase | 1Weeks | 22 oct 2022 |
| MN-05 | Project Development Phase | 1Weeks | 18 nov 2022 |
| MN-06 | Project Structure & Data Collection | 1Weeks | 30 sep 2022 to 02 oct 2022 |
| MN-07 | Image Pre-Processing & Model Building | 6Days | 08 oct 2022 to 14 oct 2022 |
| MN-08 | Test the Model | 2Days | 20 oct 2022 |
| MN-09 | Application Building | 1Weeks | 22 oct 2022 |
| MN-10 | Train CNN Model on IBM | 2Days | 30 oct 2022 |

**Activity List:**

| **Milestone Number** | **Activity Number** | **Activity Name** | **Description** | **Submission Dates** |
| --- | --- | --- | --- | --- |
| Sprint-1 | AN-01 | Pre-requisites | Install the required software, it’s supporting packages and create a project development environment | 30 sep 2022 |
| AN-02 | Project Structure | Create the Project Structure for building Conversation Engine | 02 oct 2022 |
| AN-03 | Data Collection | Collect data for building the project. | 04 oct 2022 |
| Sprint-2 | AN-04 | Create Train and Test Folders | Create Train and Test folders with each folder having folders with images of different hand signs | 06 oct 2022 |
| AN-05 | Image Pre-Processing | We will pre-process the images which will be used for building the model | 08 oct 2022 |
| AN-06 | Import the required model building libraries & Initialize the model | Add packages containing the appropriate functions and other entities for constructing the model.  To initialize the model parameters and choosing an optimization algorithm | 10 oct 2022 to 12 oct 2022 |
| Sprint-3 | AN-07 | Test the model | We test the model by passing an image to get predictions. | 20 oct 2022 |
| AN-08 | Import the packages and load the saved model. | Loading the user defined model to work for testing purpose. | 21 oct 2022 |
| AN-09 | Load the test image, pre-process it and predict | P re-processing an input image and passing it into the model to witness the predictions for the same. | 21 oct 2022 |
| Sprint-4 | AN-10 | Application Building | We will be building a Flask application that is used for building our UI which in backend can be interfaced to the model to get predictions | 22 oct 2022 |
| AN-11 | Build a flask application. | • Load the required packages.  • Initialize graph, load the model, initialize the flask app and load the video. Graph element is required to work with Tensorsflow.  • Configure the home page | 24 oct 2022 |
| AN-12 | Build the HTML page. | Build an HTML page to display the processed video on the screen, so that the person can show signs which can be detected. | 26 oct 2022 |
| AN-13 | Register on IBM cloud | We need to register for IBM Cloud to access the service. | 28 oct 2022 |
| AN-14 | Train CNN Model on IBM | • Train your model on IBM Cloud. • Store your Model on IBM Cloud. • Download the Stored model to the Local system | 30 oct 2022 |
| Final Deliverables | AN-15 | Project Submission | Final submission of model &testing.  Submit All the Sprint..  Run the web app application and testing.  Finally submit the code. | 19 Nov 2022 |