**MILESTONE AND**

**ACTIVITY LIST**

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| **Date** | 29 October 2022 |
| **Team ID** | PNT2022TMID33682 |
| **Project Name** | REAL TIME COMMUNICATION SYSTEM POWERED BY AI FOR SPECIALLY ABLED |
| **Maximum Marks** | 4 Marks |

**MILESTONE**

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| Pre-Requisites | M-01 | In order To complete this project we should have known the following software concepts and packages like Keras, Tensorflow, Python, Anaconda, OpenCV, Flask and so on … | Yes |
| Project Structure | M-02 | This is the project structure which is needs to be followed for building Conversation Engine | yes |
| Data collection | M-03 | We are gathering data for building our project. We will be creating two folders one for training and the other for testing. Images present in the training folder will be used for building the model and the testing images will be used for validating our model. | Yes |
| Image  Preprocessing | M-04 | In this image preprocessing, we will pre-process the images which will be used for building the model. Image pre-processing includes zooming, shearing, flipping to increase the robustness of the model after it is built. We will be using the Keras package for pre-processing images. | Yes |

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| Model Building | M-05 | In this milestone, we start building our model throughInitializing the model, Adding Convolution layers, Adding Pooling layers, Flatten layer, Full connection layers which include hidden layers At last, we compile the model with layers we added to complete the neural network structure. | Yes |
| Test the model | M-06 | Now we test the model by passing an image to get predictions. While testing the model we should make sure that the test image should meet the target size of the model, dimensions need to meet, and | Yes |

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|  | |  | | should undergo rescaling before giving it to the model. | |  | |
| Application layer | | M-07 | | 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. Flask application requires an HTML page for Frontend and a Python file for the backend which takes care of the interface with the model. | | Yes | |
| Train CNN model | | M-08 | | You can also train your Image classification Models on IBM Cloud using IBM Watson Studio Service. This milestone lets you :Train your model on IBM, Store your Model on IBM , Download the Stored model to the Local system . | | Yes | |
| Ideation Phase | | M-09 | | To Prepare Literature Survey on the selected Project and the Information Gathering, empathy map and ideation | | Yes | |
| Project Design Phase-I | | M-10 | | From this milestone you will be continue working on the project design  .you are expected to cover the activities in given | | Yes | |
| Project  Design  Phase-II | | M-11 | | From this milestone you will be continue working on the project design phase. You are expected to cover the activities in given. | | Yes | |
| Project  Planning  Phase | | M-12 | | From this milestone you are expected to prepare milestones & tasks, sprint schedules. | | Yes | |

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| Project  Development  Phase | M-13 | From this milestone you will start the project development and expected to perform the coding & solutioning, acceptance testing, performance testing based as per the sprint and submit them. | Yes |

**ACTIVITY LIST**

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| Activity Number | Activity | Sub Activity | Assigned To | Status |
| 1. | [PRE-REQUISITES](https://careereducation.smartinternz.com/Student/guided_project_workspace/15856#collapse3) | To complete this project, you must require the following software’s, concepts, and packages **Anaconda (ID LE/Spyder/PyCharm)(P ython 3.7).** | All Members | Completed |
| 2. | PROJECT  STRUCTURE | * Dataset * Test\_set * Training\_set * Static * Images * templates | All Members | Completed |
| 3. | [DATA](https://careereducation.smartinternz.com/Student/guided_project_workspace/15856#collapse4)  [COLLECTION](https://careereducation.smartinternz.com/Student/guided_project_workspace/15856#collapse4) | create train and test folders, dataset can also be downloaded  from the  reference provides. | All Members | Completed |
| 4. | [IMAGE](https://careereducation.smartinternz.com/Student/guided_project_workspace/15856#collapse5)  [PREPROCES](https://careereducation.smartinternz.com/Student/guided_project_workspace/15856#collapse5)  [SING](https://careereducation.smartinternz.com/Student/guided_project_workspace/15856#collapse5) | * Import image data generator library and congure it. * Apply image data generator functionality to train and test set | All Members | Completed |
| 5. | [MODEL BUILDING](https://careereducation.smartinternz.com/Student/guided_project_workspace/15856#collapse6) | * Import the required model building libraries. * Initialize the model. * Add the   convolution layer.   * Add the pooling layer. * Add the flatten layer. * Adding the dense layers. * Compile the model. * Fit save the model. | All Members | Completed |

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| 6. | TEST THE MODEL | * Import the packages and load the saved model. * Load the test image pre-   process it and predict. | All Members | In progress |
| 7. | APPLICATION BUILDING | * Build a flask application. * Build a flask application. * Building   flask application – part 3.   * Build the HTML page.  output | All Members | In-progress |
| 8. | [TRAIN CNN](https://careereducation.smartinternz.com/Student/guided_project_workspace/15856#collapse8)  [MODEL ON](https://careereducation.smartinternz.com/Student/guided_project_workspace/15856#collapse8)  [IBM](https://careereducation.smartinternz.com/Student/guided_project_workspace/15856#collapse8) | * Register for IBM cloud. * Train image classifica tion model. | All Members | In progress |
| 9. | [IDEATION PHASE](https://careereducation.smartinternz.com/Student/guided_project_workspace/15856#collapse9) |  Literat  ure survey on the selecte d project | All Members | Completed |

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|  |  | & inform ation gatheri ng.   * Prepare empath y map. * Ideatio   n. |  |  |
| 10. | [PROJECT](https://careereducation.smartinternz.com/Student/guided_project_workspace/15856#collapse10)  [DESIGN](https://careereducation.smartinternz.com/Student/guided_project_workspace/15856#collapse10)  [PHASE – I](https://careereducation.smartinternz.com/Student/guided_project_workspace/15856#collapse10) | * Propose   d solutio n.   * Problem solutio n fit. * Solution archite cture. | All Members | Completed |
| 11. | [PROJECT](https://careereducation.smartinternz.com/Student/guided_project_workspace/15856#collapse11)  [DESIGN](https://careereducation.smartinternz.com/Student/guided_project_workspace/15856#collapse11)  [PHASE -II](https://careereducation.smartinternz.com/Student/guided_project_workspace/15856#collapse11) | * Customer journey. * Functional requirement. * Data flow diagrams. * Technology   Architecture. | All Members | Completed |
| 12. | [PROJECT](https://careereducation.smartinternz.com/Student/guided_project_workspace/15856#collapse12)  [PLANNING](https://careereducation.smartinternz.com/Student/guided_project_workspace/15856#collapse12)  [PHASE](https://careereducation.smartinternz.com/Student/guided_project_workspace/15856#collapse12) | * Prepare mileston   e &  activity list.   * Sprint delivery plan | All Members | Completed |