|  |  |
| --- | --- |
| Date | 01-11-2022 |
| Team id | Pnt2022tmid40220 |
| Project name | Emergy methods for early detection of forest fires |

MILESTONE LIST

|  |  |  |  |
| --- | --- | --- | --- |
| **Milestone Name** | **Milestone Number** | **Description** | **Mandatory** |
| Project Objectives | M-1 | We will be able to learn to prepare dataset, image processing, workingwith CNN layers, read images using OpenCV and CNN for computer vision AI | Yes |
| Project Flow | M-2 | A project management process flowchart is a graphical aid,designed to visualize the sequence of steps to be followed throughout the project management process | Yes |
| Pre-Requisites | M-3 | To complete this project, we should have known following project such as Keras, TensorFlow, Python ,Anaconda, OpenCV, Flask,Scikitlearn etc. | Yes |
| Prior Knowledge | M-4 | One should have knowledge on the Supervised Learning, CNN and Regression Classification and Clustering, ANN | Yes |
| Data collection | M-5 | We can collect dataset from different open sources like kggle.com,UCI machine learning etc | Yes |
| Image Preprocessing | M-6 | Importing the ImageDataGenerator libraries, Define Parameters/Arguments for ImageDataGenerator class, Applying ImageData Generator Functionality to trainset and test set | Yes |
| Model Building | M-7 | Importing the model building libraries, Initializing the model, Adding CNN layers, Adding Dense layers, Configuring the learning Process, Train the model, Save the model, Predictions. | Yes |
| Video Analysis | M-8 | Open cv for video processing, creating an account in twillo service and sending alert message | Yes |
| Train CNN model | M-9 | Register for IBM Cloud and train Image Classification Model | Yes |
| Ideation Phase | M-10 | Prepare Literature Survey on the selected Project and Information Gathering, empathy map and ideation | Yes |
| Project Design Phase I | M-11 | Prepare Proposed Solution, Problem- Solution Fit, Solution Architecture | Yes |
| Project Design Phase 2 | M-12 | Prepare Customer journey, functional requirements, Dataflowdiagram and TechnologyArchitecture | Yes |
| Project PlanningPhase | M-13 | Prepare Milestone list , Activity list and Sprint Delivery Plan | Yes |
| Project Development Phase | M-14 | Project Development delivery of Sprint 1, Sprint 2, Sprint 3, Sprint 4 | Yes |

ACTIVITY LIST

|  |  |  |  |
| --- | --- | --- | --- |
| Activity Number | Activity | Activity | Status |
| 1 | PROJECT OBJECTIVES |  | In Progress |
| 2 | PROJECT FLOW |  | In Progress |
| 3 | PRE-REQUISITES |  | In Progress |
| 4 | DATA COLLECTION | 4.1 Download theDataset | Completed |
| 5 | IMAGE PREPROCESSING | 5.1 Import ImageDataGeneratorLibrary.  5.2 Define the Parameters/ Arguments for ImageDataGeneratorclass.  5.3 Applying ImageDataGenerator Functionality totrainset and test set. | In Progress |
| 6 | MODEL BUILDING | 6.1 Importing the modelbuilding libraries. 6.2 Initializing the model.  6.3 Adding CNNlayers.  6.4 Adding dense layers.  6.5 Configuring the learning process  6.6 Training themodel.  6.7 Saving the model.  6.8 Predictions | In Progress |
| 7 | VIDEO ANALYSIS | 7.1 OpenCV for video processing.  7.2 Creating an accountin Twilio service. 7.3 Sending alertmessage. | In Progress |
| 8 | TRAIN CNN MODEL ON IBM | 8.1 Train image classification model.  8.2 Register for IBMcloud. | In Progress |
| 9 | IDEATION PHASE | 9.1 Literature Review.  9.2 Empathy map.  9.3 Ideation | Completed |
| 10 | PROJECT DESIGN PHASE – I | 10.1 Proposed Solution.  10.2 Problem solution.  10.3 Solution Architecture | Completed |
| 11 | PROJECT DESIGN PHASE -II | 11.1 Customer journey.  11.2 Functional requirement.  11.3 Data flow Diagrams.  11.4 TechnologyArchitecture. | Completed |
| 12 | PROJECT PLANNING PHASE | 12.1 Prepare milestone and activity list 12.2 Sprint delivery plan. | Completed |
| 13 | PROJECT DEVELOPMENT PHASE | 13.1 Project development-Delivery of  Sprint-1.  13.2 Project development-Delivery of  Sprint-2.  13.3 Project development-Delivery of Sprint-3  13.4 Project development-Delivery of  Sprint-4. | In Progress |