MILESTONE & ACTIVITY LIST

| Team ID | PNT2022TMID28739 |
|--------------|---|
| Project Name | Emerging Methods for Early Detection of |
| | Forest Fires |
| Team members | 1.B.VEERA MAHESWARA REDDY |
| | 2. K.RAHUL REDDY |
| | 3. Y.CHETHAN REDDY |
| | 4.N.MADHUKAR SREE |
| | SAI |

| Milestone | Milestone | Description | Mandatory |
|-------------------|-----------|--|-----------|
| Name | Number | | |
| Project | M-01 | We will be able to learn to prepare dataset, image | Yes |
| Objectives | | processing, working with CNN layers, read images | |
| | | using OpenCV and CNN for computer vision AI | |
| Project | M-02 | A project management process flowchart is a | Yes |
| Flow | | graphical aid, designed to visualize the sequence of | |
| | | steps to be followed throughout the project | |
| | | management process | |
| Pre- | M-03 | To complete this project, we should have known | Yes |
| Requisites | | following project such as Keras, TensorFlow, Python, | |
| | | Anaconda, OpenCV, Flask, Scikit-learn etc | |

| Prior | M-04 | One should have knowledge on the Supervised Learning, | Yes |
|------------|------|--|-----|
| Knowledge | | CNN and Regression Classification and Clustering, ANN | |
| Data | M-05 | We can collect dataset from different open sources like | Yes |
| collection | | kaggle.com, UCI machine learning etc. | |
| Image | M-06 | Importing the Image Data Generator libraries, Define | Yes |
| Pre | | Parameters/Arguments for Image Data Generator class, | |
| processing | | Applying Image Data Generator Functionality to trainset and | |
| | | test set | |
| Model | M-07 | Importing the model building libraries, Initializing the | Yes |
| Building | | model, Adding CNN layers, Adding Dense layers, | |
| | | Configuring the learning Process, Train the model, Save the | |
| | | model, | |
| | | Predictions. | |
| Video | M-08 | Open CV for video processing, creating an account in | Yes |
| Analysis | | twilio service and sending alert message | |
| Train CNN | M-09 | Register for IBM Cloud and train Image Classification | Yes |
| model | | Model | |
| Ideation | M-10 | Prepare Literature Survey on the selected Project and | Yes |
| Phase | | Information Gathering, empathy map and ideation | |
| Project | M-11 | Prepare Proposed solution, problem-solution fit and Solution | Yes |
| Design | | Architecture | |

| Phase-I | | | |
|-------------|------|--|-----|
| Project | M-12 | Prepare Customer journey, functional requirements, Dataflow | Yes |
| Design | | diagram and Technology Architecture | |
| Phase-II | | | |
| Project | M-13 | Prepare Milestone list, Activity list and Sprint Delivery Plan | Yes |
| Planning | | | |
| Phase | | | |
| Project | M-14 | Project Development delivery of Sprint 1, Sprint 2, Sprint 3, | Yes |
| Development | | Sprint 4 | |
| Phase | | | |

ACTIVITY LIST

| Activity Number | Activity | Sub Activity | Assigned To | Status |
|--------------------|------------------------|---|---|-------------|
| 1. | PROJECT OBJECTIVES | | B.VEERA MAHESWARA REDDY Y.CHETAN REDDY | Completed |
| 2. | PROJECT FLOW | | N.MADHUKAR SREE SAI | Completed |
| 3. | PRE-REQUISITES | | K.RAHUL REDDY | Completed |
| 4. | DATA COLLECTION | 4.1 Download the Dataset | N.MADHUKAR SREE SAI K.RAHUL REDDY | Completed |
| 5. | IMAGE PREPROCESSING | 5.1 Import the ImageData GeneratorLibrary.5.2 Define the | All Members | In Progress |
| | | Parameters/Argumentsfor Image Data Generator class. 5.3 Applying | | |
| | | Image Data Generator | | |

| | | Functionality totrainset and test set. | | |
|----|----------------|--|-------------|-------------|
| 6. | MODEL BUILDING | 6.1 Importing the model building libraries. 6.2 Initializing the model. 6.3 Adding CNN layers. 6.4 Adding dense layers. 6.5 Configuring the learning process. 6.6 Training the model. 6.7 Saving the model. 6.8 Predictions | All Members | In Progress |

| 7. | VIDEO ANALYSIS | 7.1 OpenCV for video processing. 7.2 Creating an account in Twilio service. 7.3 Sending alert message. | All Members | In Progress |
|-----|--------------------------------|--|-------------|-------------|
| 8. | TRAIN CNN MODEL ON IBM | 8.1 Train image classification model. 8.2 Register for IBM cloud. | All Members | In Progress |
| 9. | IDEATION PHASE | 9.1 LiteratureReview.9.2 Empathy map.9.3 Ideation. | All Members | Completed |
| 10. | PROJECT DESIGN PHASE – I | 10.1 Proposed Solution. 10.2 Problem solution fit. 10.3 | All Members | Completed |

| | | Solution Architecture. | | |
|-----|--------------------------------|--|-------------|-----------|
| 11. | PROJECT DESIGN PHASE -II | 11.1 Customer journey. 11.2 Functional requirement. 11.3 Data flow Diagrams. 11.4 Technology Architecture. | All Members | Completed |
| 12. | PROJECT PLANNING PHASE | 12.1 Prepare milestone andactivity list.12.2 Sprint delivery plan. | All Members | 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. | All Members | In Progress |
|-----|---------------------------------|--|-------------|-------------|
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