MILESTONE LIST

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| Milestone Name | Milestone Number | Description |
| Project Objectives | M-001 | We will be able to learn to prepare dataset, image processing, working with CNN layers, read images using OpenCV and CNN for computer vision AI |
| Project Flow | M-002 | A project management process flowchart is a graphical aid, designed to visualize the sequence of steps to be followed  throughout the project management process |
| Pre-Requisites | M-003 | To complete this project we should have known following project such as Keras, Tensorflow, Python ,Anaconda, OpenCV, Flask, Scikit-learn etc… |
| Prior Knowledge | M-004 | One should have knowledge on the Supervised Learning ,CNN and Regression Classification and Clustering, ANN |
| Data collection | M-005 | We can collect dataset from different open sources like kaggle.com, UCI machine learning etc |
| Image  Preprocessing | M-006 | Importing the ImageDataGenerator libraries, Define Parameters/Arguments for ImageDataGenerator class, Applying Image Data Generator Functionality to trainset and testset |
| Model Building | M-007 | 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. |
| Video Analysis | M-008 | Opencv for video processing, creating an account in twilio service and sending alert message |
| Train CNN model | M-009 | Register for IBM Cloud and train Image Classification Model |
| Ideation Phase | M-010 | Prepare Literature Survey on the selected Project and Information Gathering, empathy map and ideation |
| Project Design Phase-I | M-011 | Prepare Proposed solution , problem-solution fit and Solution Architecture |
| Project Design Phase-II | M-012 | Prepare Customer journey ,functional requirements,Data flow diagram and Technology Architecture |
| Project Planning Phase | M-013 | Prepare Milestone list , Activity list and Sprint Delivery Plan |
| Project  DevelopmentPhase | M-014 | Project Development delivery of Sprint 1, Sprint 2, Sprint 3, Sprint 4 |

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| **Project Name**  **Project Number**  **Project Leader** | Emerging Methods for Early Detection of Forest Fires | **Date**  **No of Members** | 21/10/2022 |
| 41443-1660642202 | 4 |
| Sriram.P | **Project Owner/Client** | IBM |

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| Project Name  Project Domain  Project Leader | Emerging Methods For Early Detection Of Forest Fires | Date  No of Members | 21/10/2022 |
| Artificial Intelligence | 4 |
| Sriram.P | Project Owner/Client | IBM |

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| **Activity**  **Number** | **Activity Name** | **Detailed Activity Description** | **Assigned To** |

ACTIVITY LIST

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| **1.1** | Access Resources | Access the resources (courses) in project dashboard. | All Members |
| **1.2** | Rocket chat registration | Join the mentoring channel via platform  & rocket-chat  mobile app. | All Members |
| **1.3** | Access workspace | Access the guided project workspace. | All Members |
| **1.4** | IBM Cloud registration | Register on IBM Academic Initiative & Apply Feature code for IBM Cloud Credits. | All Members |
| **1.5** | Project Repository Creation | Create GitHub account & collaborate with Project  Repository in project workspace. | All Members |
| **1.6** | Environment Setup | Set-up the Laptop / Computers based on the pre-  requisites for each technology track. | All Members |
| **2.1** | Literature survey | Literature survey on the selected project & Information Gathering. | ALL MEMBERS |
| **2.2** | Technology Training | Attend the technology trainings as per the training Calendar. | All Members |
| **2.3** | Empathy Map | Prepare Empathy Map Canvas to  capture the user Pains & Gains,  Prepare list of problem  statements | SRIRAM.P  RAMACHANDIRAN |
| **2.4** | Technology Training | Attend the technology trainings as per the training Calendar. | All Members |
| **2.5** | Brainstorming | List the ideas (at least 4 per each team member) by | All Members |

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|  |  |  | organizing the brainstorming session and prioritize the  top 3 ideas based on the feasibility & importance. |  |
|  | **2.6** | Technology Training | Attend the technology trainings as per the training Calendar. | All Members |
|  | **3.1** | Proposed Solution Document | Prepare the proposed  solution document, which includes  the novelty, feasibility of idea, business model, social  impact, scalability of solution, etc. | GOKUL.N,  RAMACHANDIRAN.P |
|  | **3.2** | Technology Training | Attend the technology trainings as per the training Calendar. | All Members |
| **3.3** |  | Problem - Solution fit &  Solution  Architecture | Prepare problem - solution fit document & Solution Architecture. | SIRIRAM.P,PRADEEP.R |
|  | **3.4** | Technology Training | Attend the technology trainings as per the training Calendar. | All Members |

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|  | **4.1** | Customer Journey Map | Prepare the customer journey maps to understand the  user interactions & experiences with the application (entry to exit). | All Members |
| **4.2** |  | Technology Training | Attend the technology trainings as per the training Calendar. | All Members |
|  | **4.3** | Functional Requirements  &  Data Flow Diagrams | Prepare the Functional Requirement Document & Data- Flow Diagrams. | ALL MEMBERS |
|  | **4.4** | Technology Architecture | Prepare Technology Architecture of the solution. | ALL MEMBERS |
|  | **4.5** | Technology Training | Attend the technology trainings as per the training Calendar. | All Members |
|  | **5.1** | Milestone  &  Activity List | Prepare Milestone &  Activity List. | ALL MEMBERS |
|  | **5.2** | Sprint Delivery Plan | Prepare Sprint Delivery Plan. | ALL MEMBERS |
|  | **6** | Data Collection | Collect datasets from different open  sources like  kaggle.com, data.gov,  UCI machine learning repository, etc. | ALL MEMBERS |
|  | **7.1** | Image Preprocessing | Importing the ImageDataGenerator Library | ALL MEMBERS |
|  | **7.2** | Image Preprocessing | Define the parameters/arguments for ImageDataGenerator class. | ALL MEMBERS |
|  | **7.3** | Image Preprocessing | Applying ImageDataGenerator functionality to trainset and test set. | ALL MEMBERS |
|  | **8.1** | Model Building | Importing the model building libraries. | ALL MEMBERS |
|  | **8.2** | Model Building | Initializing the model. | ALL MEMBERS |
|  | **8.3** | Model Building | Adding CNN Layers. | ALL MEMBERS |
|  | **8.4** | Model Building | Adding Dense Layers | ALL MEMBERS |
|  | **8.5** | Model Building | Configuring the learning process | ALL MEMBERS |
|  | **8.6** | Model Building | Training the Model | ALL MEMBERS |
|  | **8.7** | Model Building | Save the model | ALL MEMBERS |
|  | **8.8** | Model Building | Predictions | ALL MEMBERS |
|  | **9.1** | Video Analysis | OpenCV for video processing. | ALL MEMBERS |
|  | **9.2** | Video Analysis | Creating an account in Twilio service. | ALL MEMBERS |
|  | **9.3** | Video Analysis | Sending alert message. | ALL MEMBERS |
|  | **10.1** | Train CNN Model on IBM | Register for IBM Cloud | All Members |

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| **10.2** | Train CNN Model on IBM | Train Image Classification Model | All Members |