MILESTONE LIST

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| Project Name | Smart lender-Applicant Credibility prediction for loan approval | Date | 1/10/2022 |
| Project Domain | Applied Data Science | No of Members | 4 |
| Project Leader | Manikandan.V | Project Owner/Client | IBM |

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| Milestone Name | Milestone Number | Description | Mandatory | Optional |
| Pre-Requisites | M-001 | We will be downloading the following anaconda software to complete this project and also will be learning some concepts. | Yes |  |
| Prior Knowledge | M-002 | We will be learning the supervised learning,unsupervised learning, flask, metrices | Yes |  |
| Project objectives | M-003 | We will get the knowledge about the machine learning algorithms, python with machine learning, clean the data,real time analysis of project, building user interface | Yes |  |
| Project flow | M-004 | In this installing required libraries, data collection, data preprocessing, model building, application building, final UI | Yes |  |
| Project structure | M-005 | We will be building a flask application that needs HTML pages and this model is built in notebook floods | Yes |  |
| Data collection | M-006 | Downloading the dataset for the project from the open sources like keggel.com, data.gov | Yes |  |
| Visualizing and analyzing the data | M-007 | Importing the important libraries for the project, reading the dataset, univariate, bivariate, multivariate, descriptive analyzing of project done in this phase | Yes |  |
| Data preprocessing | M-008 | Finding the shape of the dataset and converting the categorical data to integer encoding or binary encoding and balancing dataset,scaling dataset. | Yes |  |
| Model building | M-009 | Model building with the use of four algorithms best algorithm used in the future Decision tree, random forest, KNN, xgboost model are used. | Yes |  |
| Application building | M-010 | Building the html pages, python code with all tests done running the application | Yes |  |
| Train the model on IBM | M-011 | We will learning to built deep learning and deploying it on the cloud | Yes |  |
| Ideation phase | M-012 | Literature survey on the project and preparing the empathy map | Yes |  |
| Project design phase 1 | M-013 | Prepare proposed solution,problem solution fit and solution architecture | Yes |  |
| Project design phase 2  Project planning phase | M-014  M-015 | Prepare the customer journey map, functional requirement document, data flow diagrams, technology architecture for the project  Prepare Milestone, activity list and sprint delivery plan for the project | Yes  Yes |  |
| Project development phase | M-016 | Project development delivery of sprint 1, sprint 2, sprint 3, sprint 4 | Yes |  |

ACTIVITY LIST

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| **Project Name** | Smart Lender-Applicant Credibility Prediction for Loan Approval | **Date** | 01/10/2022 |
| **Team ID** | PNT2022TMID45822 | **No of Members** | 4 |
| **Project Leader** | Manikandan.V | **Project Owner/Client** | IBM |

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| Activity  Number | Activity Name | Detailed Activity Description | Assigned To | Status / Comments |
| 1.1 | Access Resources | Access the resources (courses) in project dashboard. | All Members | COMPLETED |
| 1.2 | Rocket chat registration | Join the mentoring channel via platform & rocket-chat  mobile app. | All Members | COMPLETED |
| 1.3 | Access workspace | Access the guided project workspace. | All Members | COMPLETED |
| 1.4 | IBM Cloud registration | Register on IBM Academic Initiative & Apply Feature codefor IBM Cloud Credits. | All Members | COMPLETED |
| 1.5 | Project Repository Creation | Create GitHub account & collaborate with Project  Repository in project workspace. | All Members | COMPLETED |
| 1.6 | Environment Setup | Set-up the Laptop / Computers based on the pre-  requisites for each technology track. | All Members | COMPLETED |
| 2.1 | Literature survey | Literature survey on the selected project & Information  Gathering. | PRAKASH.K | COMPLETED |
| 2.2 | Technology Training | Attend the technology trainings as per the training  Calendar. | All Members | COMPLETED |
| 2.3 | Empathy Map | Prepare Empathy Map Canvas to capture the user Pains&Gains, Prepare list of problem statements | MANIKANDAN.V | COMPLETED |
| 2.4 | Technology Training | Attend the technology trainings as per the training  Calendar. | All Members | COMPLETED |
| 2.5 | Brainstorming | List the ideas (at least 4 per each team member) by  organizing the brainstorming session and prioritize the  top 3 ideas based on the feasibility & importance. | All Members | COMPLETED |
| 2.6 | Technology Training | Attend the technology trainings as per the training  Calendar. | All Members | IN PROGRESS |
| 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. | MANIKANDAN.B | COMPLETED |
| 3.2 | Technology Training | Attend the technology trainings as per the training  Calendar. | All Members | IN PROGRESS |
| 3.3 | Problem - Solution fit&SolutionArchitecture | Prepare problem - solution fit document & Solution  Architecture. | PRAKASH.K  MANIKANDAN.V | COMPLETED |
| 3.4 | Technology Training | Attend the technology trainings as per the training  Calendar. | All Members | IN PROGRESS |
| 4.1 | Customer Journey Map | Prepare the customer journey maps to understand the  user interactions & experiences with the application  (entry to exit). | S.PARTHIBAN | COMPLETED |
| 4.2 | Technology Training | Attend the technology trainings as per the training  Calendar. | All Members | COMPLETED |
| 4.3 | FunctionalRequirements  &  DataFlow Diagrams | Prepare the Functional Requirement Document & Data-  Flow Diagrams. | MANIKANDAN.B  PRAKASH.K | IN PROGRESS |
| 4.4 | Technology Architecture | Prepare Technology Architecture of the solution. | MANIKANDAN.V | COMPLETED |
| 4.5 | Technology Training | Attend the technology trainings as per the trainingCalendar. | All Members | IN PROGRESS |
| 5.1 | Milestone  &  Activity List | Prepare Milestone &  Activity List. | AS.PARTHIBAN | COMPLETED |
| 5.2 | Sprint Delivery Plan | PrepareSprint Delivery Plan. | MANIKANDAN.B | COMPLETED |
| 6 | Data Collection | Collect datasets from different open sources like kaggle.com, data.gov, etc. | MANIKANDAN.V  PRAKASH.K | COMPLETED |
| 7.1 | Visualizing and analyzing of data | Analyzing of data collected and visualzing | MANIKANDAN.B  S.PARTHIBAN | IN PROGRESS |
| 7.2 | Importing libraries | Importing of libraries from the downloaded dataset. | MANIKANDAN.V  PRAKASH.K | IN PROGRESS |
| 7.3 | Reading the dataset | Data are analyzed and reading of data takes place. | MANIKANDAN.B  S.PARTHIBAN | IN PROGRESS |
| 8.1 | Model Building | Importing the model building libraries. | MANIKANDAN.V  PRAKASH.K | IN PROGRESS |
| 8.2 | Model Building | Initializing the model. | MANIKANDAN.V  S.PARTHIBAN | IN PROGRESS |
| 8.3 | Model Building | Decision tree model is created and passed as the parameters. | S.PARTHIBAN | IN PROGRESS |
| 8.4 | Model Building | Random forest model is created and passed as the parameters. | MANIKANDAN.V  PRAKASH | IN PROGRESS |
| 8.5 | Model Building | Xgboost model is created and passed as the parameters. | MANIKANDAN.B  S.PARTHIBAN | IN PROGRESS |
| 8.6 | Model Building | Comparing the model. | MANIKANDAN.B  S.PARTHIBAN | IN PROGRESS |
| 8.7 | Model Building | Save the model | MANIKANDAN.V  PRAKASH | IN PROGRESS |
| 8.8 | Model Building | Predictions | MANIKANDAN.V  S.PARTHIBAN | IN PROGRESS |
| 9.1 | Application building | Building the HTML pages. | MANIKANDAN.V  MANIKANDAN.B | IN PROGRESS |
| 9.2 | Application building | Building the python code. | K.PRAKASH | IN PROGRESS |
| 9.3 | Application building | Running the application. | S.PARTHIBAN  MANIKANDA.B | IN PROGRESS |
| 10.1 | Train CNN Model on IBM | Register for IBM Cloud | All Members | IN PROGRESS |
| 10.2 | Train CNN Model on IBM | Train the ML model on IBM. | All Members | IN PROGRESS |
| 10.3 | Train CNN Model on IBM | Integrate flask with scoring end point | All Members | IN PROGRESS |