## MILESTONE LIST

Project Name	Car Resale Value Prediction	Date	11/10/2022
Project Domain	Applied Data Science	No of Members	5
Project Leader	Vishnupriyan V	Project Owner/Client	IBM

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, matrices	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	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	
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phase				
Project development phase	M-016	Project development delivery of sprint 1, sprint 2, sprint 3, sprint 4	Yes	

## **ACTIVITY LIST**

Project Name	Car Resale Value Prediction	Date	01/10/2022
<b>Project Number</b>	41824-1660645243	No of Members	5
Project Leader	Vishnupriyan V	Project Owner/Client	IBM

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 code for 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.	All Members	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	All Members	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.	All Members	COMPLETED

3.2	Technology Training	Attend the technology trainings as per the training Calendar.	All Members	IN PROGRESS
3.3	Problem - Solution fit & Solution Architecture	Prepare problem - solution fit document & Solution Architecture.	All Members	COMPLETED
3.4	Technology Training	Attend the technology trainings as per the training	All Members	IN PROGRESS

		Calendar.		
4.1	Customer Journey Map	Prepare the customer journey maps to understand the user interactions & experiences with the application (entry to exit).	All Members	COMPLETED
4.2	Technology Training	Attend the technology trainings as per the training Calendar.	All Members	COMPLETED
4.3	Functional Requirements & Data Flow Diagrams	Prepare the Functional Requirement Document & Data-Flow Diagrams.	All Members	IN PROGRESS
4.4	Technology Architecture	Prepare Technology Architecture of the solution.	All Members	COMPLETED
4.5	Technology Training	Attend the technology trainings as per the training Calendar.	All Members	IN PROGRESS
5.1	Milestone & Activity List	Prepare Milestone & Activity List.	All Members	COMPLETED
5.2	Sprint Delivery Plan	Prepare Sprint Delivery Plan.	All Members	COMPLETED
6	Data Collection	Collect datasets from different open sources like kaggle.com, data.gov, etc.	All Members	COMPLETED
7.1	Visualizing and analyzing of data	Analyzing of data collected and visualzing	All Members	COMPLETED
7.2	Importing libraries	Importing of libraries from the downloaded dataset.	All Members	COMPLETED
7.3	Reading the dataset	Data are analyzed and reading of data takes place.	All Members	COMPLETED
8.1	Model Building	Importing the model building libraries.	All Members	COMPLETED
8.2	Model Building	Initializing the model.	All Members	COMPLETED
8.3	Model Building	Decision tree model is created and passed as the parameters.	All Members	COMPLETED
8.4	Model Building	Random forest model is created and passed as the parameters.	All Members	COMPLETED
8.5	Model Building	Xgboost model is created and passed as the parameters.	All Members	COMPLETED
8.6	Model Building	Comparing the model.	All Members	COMPLETED

8.7	Model Building	Save the model	All Members	COMPLETED
8.8	Model Building	Predictions	All Members	COMPLETED
9.1	Application building	Building the HTML pages.	All Members	COMPLETED
9.2	Application building	Building the python code.	All Members	COMPLETED
9.3	Application building	Running the application.	All Members	COMPLETED
10.1	Train CNN Model on IBM	Register for IBM Cloud	All Members	COMPLETED
10.2	Train CNN Model on IBM	Train the ML model on IBM.	All Members	COMPLETED
10.3	Train CNN Model on IBM	Integrate flask with scoring end point	All Members	COMPLETED