**Project Planning Phase**

**Milestone and Activity list**

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| Date | 02-November-2022 |
| Team ID | PNT2022TMID00524 |
| Project Name | DemandEst - AI powered Food Demand Forecaster |
| Maximum Marks | 8 Marks |

**Completed Tasks:**

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| **MILESTONES** | **ACTIVITY** | **DESCRIPTION** |
| Ideation phase | Literature survey | Literature survey on selected project and gathering information. |
|  | Empathy map | Prepare empathy map to capture the user pains and gains, prepare a list of problem statement. |
|  | Ideation | Organizing the brainstorming session and prioritize the top three ideas based on feasibility hand importance. |
| Project design phase 1 | Proposed solution | Prepare proposed solution document which includes  novelty, feasibility of ideas,  business model, social impact, scalability of solution. |
|  | Problem solution fit | Prepare problem solution fit Documents. |
|  | Solution architecture | Prepare solution architecture document. |

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| Project design phase 2 | Customer journey map | Prepare customer journey map to understand the user interactions and experience with the application. |
|  | Functional requirements | Prepare functional and non- functional necessity document. |
|  | Data flow diagram | Prepare data flow diagram and user  stories |
|  | Technology architecture | Draw technology architecture diagram |
| Project planning phase | Milestones and activity list | Prepare milestones and activity list of the project. |
|  | Sprint delivery plan | Planning of sprints |
| Pre-Requisites | In Order To Develop This  Project, We Need To  Install Following  Software’s/Package | Anaconda Navigator |
|  | To Build Machine  Learning Models You  Must Require The  Following Packages | NumPy  Pandas  Scikit -learn  Matplotlib and Seaborn  Flask |
| Dataset Collection | Collect The Dataset or Create The Flask | train.csv test.csv  fulfilment\_center\_info.csv meal\_info.csv |
| Data Pre-Processing | Importing The Libraries | Pandas |

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|  |  | NumPy |
|  | Reading The Dataset | Read\_csv() |
|  | Exploratory Data Analysis | train.head() test.head() |
|  | Checking For Null Values | train.ismull().sum() |
|  | Reading And Merging.csv  Files | meal\_id  center\_id |
|  | Droping Columns | center\_id meal\_id  trainfinal |
|  | Label Encoding | scikit\_learn trainfinal.head() |
|  | Data Visualization | Data visualization is where a given data set is presented in a graphical format |
|  | Splitting The Dataset into  Dependent And  Independent Variable | homepage\_featured  emailer\_for\_promotion op\_area cuisine city\_code region\_code |
|  | Split The Dataset Into Train Set And Test Set | train\_test\_split Train Dataset Test Dataset test\_size train\_size train\_test\_split |
| Model Building | Train And Test Model  Application | There are several Machine learning algorithm to be used depending on the data you are going to process such as images,sound,text and numerical values. |
|  | Model Evaluation | We’re going to use x\_train and y\_train obtained above in |

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|  |  | train\_test\_split section to train our regression model. |
|  | Save The Model | After building the model we have to save the model. |
|  | Predicting The Output Using The Model | Here,we are creating X\_test which are using to test the model to predict the number of orders by giving input to the model build. |
| Application Building | Create An HTML File | We use HTML to create the font-end part of the web page. |
|  | Build Python Code | Let us build flask file ‘apply.py’ which is a web framework written in python for server - side scripting. |
|  | Run The App | Run the application from anaconda prompt. |
| Train The Model On IBM | Register For IBM Cloud | Create IBM Account |
|  | Train The ML Model On IBM | Watch The Video To Train The Machine Learning Model On IBM Watson. |
|  | Integrate Flask With Scoring End Point | Watch The Video To Integrate  The Scooring Endpoint To The Flask |

**Remaining Tasks:**

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| **MILESTONES** | **ACTIVITY** | **DESCRIPTION** |
| Project Development Phase | Project Development Delivery Of Sprint-1 | In this activity are expected to develop & submit the developed code by testing it. |
|  | Project Development Delivery Of Sprint-2 | In this activity are expected to develop & submit the developed code by testing it. |
|  | Project Development Delivery Of Sprint-3 | In this activity are expected to develop & submit the developed code by testing it. |
|  | Project Development Delivery Of Sprint-4 | In this activity are expected to develop & submit the developed code by testing it. |