# Project Initialization and Planning Phase

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| Date | 15 March 2024 |
| Team ID | SWTID1720519736 |
| Project Title | Ecommerce Shipping Prediction UsingMachine Learning |
| Maximum Marks | 3 Marks |

**Project Proposal (Proposed Solution) template**

This project proposal outlines a solution to address a specific problem. The proposal report aimsto transform the e-commerce shipping process using machine learning, boosting efficiency and accuracy. It tackles system inefficiencies, promising better operations, reduced delays, and happier customers. Key features include a machine learning-based delivery time prediction model and real-time tracking.

| **Project Overview** | |
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| Objective | The principal aim is to transform the shipping process for e-commerce by employing sophisticated machine learning methodologies, guaranteeing more precise and expeditious delivery forecasts. |
| Scope | The project comprehensively assesses and enhances the shipping prediction process, incorporating machine learning for a more robustand efficient system. |
| **Problem Statement** | |
| Description | Fixing the current shipping prediction system's errors and inefficiencies, which have a negative impact on customer happiness and operational effectiveness. |
| Impact | Solving these issues will result in improved operational efficiency, reduced shipping delays, and an overall enhancement in the deliveryprocess, contributing to customer satisfaction and organizational success. |
| **Proposed Solution** | |
| Approach | Employing machine learning techniques to analyze and predict delivery times, creating a dynamic and adaptable shipping prediction |

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| | system. |
| Key Features | Application of a delivery time prediction model based on machine learning.Customers' real-time tracking and updates.Information in advance of any modifications to the delivery schedule. Integration with many logistics suppliers to select the most cost-effective solution. |

**Resource Requirements**

| Resource Type | Description | Specification/Allocation |
|---|---|---|
| **Hardware** | | |
| Computing Resources | CPU/GPU specifications,number of cores | e.g., 2 x NVIDIA V100 GPUs |
| Memory | RAM specifications | e.g., 8 GB |
| Storage | Disk space for data, models,and logs | e.g., 1 TB SSD |
| **Software** | | |
| Frameworks | Python frameworks | e.g., Flask |
| Libraries | Additional libraries | e.g., scikit-learn, pandas,numpy |
| Development Environment | IDE, version control | e.g., Jupyter Notebook, Git |
| **Data** | | |
| Data | Source, size, format | e.g., Kaggle dataset, train.csv |