Project Design Phase
Solution Architecture

Date	02 November 2023
Team ID	**591765**
Project Name	Ecommerce Shipping Prediction using Machine Learning.
Maximum Marks	2 Marks

Solution Architecture:

Data Collection: Utilize Python, SQL databases, and APIs to gather historical shipping data, including delivery times, routes, and relevant factors including weather conditions, product availability, etc.

Data Preprocessing: Use Pandas and NumPy for data cleaning, handling missing values, and normalization of features.

Feature Engineering: Identify and select pertinent features influencing shipping times such as distance, shipping method, product availability, and seasonal effects.

Machine Learning Model: Employ Scikit-learn or TensorFlow/PyTorch for building and training regression models or ensemble methods like Random Forest for shipping time prediction.

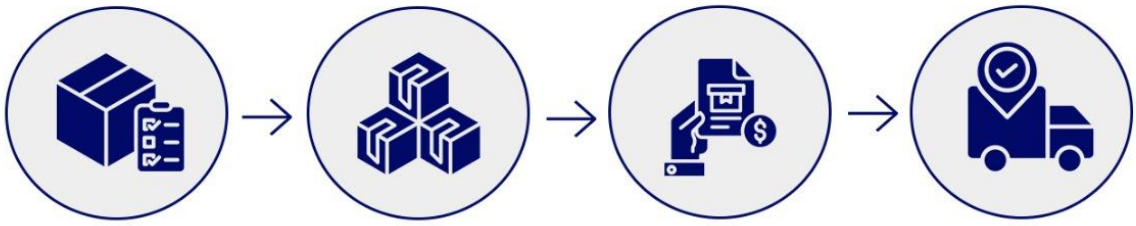
Integration: Use RESTful APIs for seamless integration of the trained model into the e-commerce platform.

Real-time Updates: Implement a system to update the model with real-time shipping data for continuous improvement.

Monitoring and Maintenance: Use tools like Prometheus and Grafana for continuous monitoring of model performance, system health, and regular maintenance.

Shipway

E-commerce Shipping Solution



Auto-sync orders | **Order management** | **Print shipping labels** | **Auto updates on order status**