High-Level Design (HLD)
Cryptocurrency Volatility Prediction System

1. Objective

The objective of this project is to design a system that predicts cryptocurrency market volatility using historical price, volume, and market capitalization data.

2. System Overview

The system follows a structured machine learning pipeline starting from data ingestion to volatility prediction.

3. System Components

- Data Ingestion Module

- Data Preprocessing Module

- Feature Engineering Module

- Exploratory Data Analysis (EDA) Module

- Machine Learning Model Module

- Prediction and Evaluation Module

4. High-Level Data Flow

Raw Data → Preprocessing → Feature Engineering → EDA → Model Training → Evaluation → Volatility Prediction