# Project Report: Gold Price Prediction

## Introduction

This project focuses on predicting gold prices using machine learning techniques. By analyzing historical market data, the model aims to provide accurate price estimations to aid investors and financial analysts.

## Dataset Description

The dataset consists of numerical features that influence gold prices, including:  
- Date (Timestamp)  
- Opening Price  
- Highest Price of the Day  
- Lowest Price of the Day  
- Closing Price (Target Variable)  
- Trading Volume

## Data Preprocessing

To ensure high model accuracy, the following preprocessing steps were performed:  
1. Handling missing values by filling or removing incomplete records.  
2. Converting date-time information into numerical features.  
3. Normalizing numerical data for better training performance.  
4. Splitting the dataset into training and testing sets for validation.

## Model Selection and Training

A Regression model such as Linear Regression, Random Forest, or XGBoost was employed to predict gold prices. The model was evaluated using Mean Squared Error (MSE) and other metrics to optimize performance.

## Results and Conclusion

The trained model successfully predicted gold prices with reasonable accuracy. Future improvements could involve testing deep learning models or incorporating additional financial indicators such as currency exchange rates and economic indices. This project highlights the significance of machine learning in financial market analysis.