Reporting No:1 Week No:3 From : 29/05/2025 To :04/05/2025.
College ID**: 23AIML014**
Project Title: Machine Learning To make inference (predictions) in Data Analytics

# WEEKLY REPORT

## Work done in last week (Attach supporting Documents):

1. **Gained practical experience building a Linear Regression model to predict house prices based on numerical features.**
    - Explored the dataset structure and cleaned missing values
    - Selected relevant features
    - Trained a linear regression model using Scikit-Learn
    - Evaluated performance using MSE and $R^2$ score
    - Visualized actual vs. predicted prices
2. **Developed and evaluated models for the Wine Quality Prediction project.**
    - Focused on classifying wine quality using chemical features
    - Built and compared performance of Random Forest, SGD, and SVC classifiers
    - Performed EDA using Pandas, Seaborn, and Matplotlib
    - Analyzed feature importance and confusion matrices
3. **Worked on the Fraud Detection project using a financial dataset.**
    - Implemented anomaly detection techniques and machine learning models
    - Focused on Logistic Regression, Decision Trees, and Neural Networks
    - Performed feature engineering and scaling
    - Evaluated model accuracy and visualized fraud vs. genuine transactions

**Reason for incomplete work:** **N/A – All planned tasks completed for Week 3**.

**Plans for next week:**

Project: Autocomplete and Autocorrect Data Analysis

- Develop a real-time suggestion system using n-gram models and edit distance
- Build a web interface using Flask and integrate the model
- Test and visualize suggestion accuracy

Project : Unveiling the Android App Market:

## References:


- Oasis Infobyte: https://oasisinfobyte.com/
- Scikit-learn Documentation
- GeeksforGeeks Machine Learning Series


**Signature of External Guide** **Signature of Internal Guide**


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