

Student Performance Prediction Using Machine Learning (Mini Project)

Introduction

This project uses machine learning to predict student performance. It analyzes factors such as study hours, attendance, and previous scores to estimate the final result. The project helps in understanding basic concepts of Artificial Intelligence and Machine Learning.

Objective

- To build a simple machine learning model
- To predict student final scores
- To gain practical experience with Python and ML libraries

Dataset Description

The dataset consists of basic student information including:

- Study Hours
- Attendance Percentage
- Previous Exam Score
- Final Score

A small CSV dataset is used for learning purposes.

Tools and Technologies

- Python
- Jupyter Notebook / Google Colab
- Pandas, NumPy

Methodology

1. Load and analyze the dataset
2. Preprocess the data
3. Split data into training and testing sets
4. Apply a basic prediction approach
5. Evaluate the model performance

Result and Conclusion

The model successfully predicts student performance based on given inputs. This mini project provided hands-on experience with basic data analysis and prediction techniques, making it suitable for beginners in AI.

Project Type: Academic Mini Project

Domain: Artificial Intelligence / Machine Learning