# Impact of Online vs Offline Learning on Student Performance

This project explores the academic outcomes of students in online vs offline learning environments using two datasets:

- UCI Student Performance Dataset (Offline learners)

- xAPI-Edu-Data from Kaggle (Online learners)

### Tools Used

- Python

- Jupyter Notebook

- pandas, seaborn, matplotlib, scikit-learn

### Key Files

- `combined\_student\_data.csv`: Cleaned dataset used for analysis

- `Final\_Presentation.pptx`: Presentation with visuals, findings, and models

- `report\_summary.txt`: Final report content (see slides for full summary)

### Summary

- Offline learning showed weak grade prediction based on attendance/study time

- Online learning showed strong prediction using engagement features

- Logistic regression achieved 81% accuracy for online student performance prediction