

Folder Structure Explanation

This project is organized into logical phases to mirror real-world ML workflows:

- 1. **Project Initiation and Planning Phase:** Contains all planning and proposal files.
- 2. **Data Collection and Preprocessing Phase:** Handles data cleaning, transformation, and exploration.
- 3. **Model Development Phase:** Contains model training and evaluation notebooks.
- 4. **Model Optimization Phase:** Includes comparison of models and the final trained `.pkl` file.
- 5. **Project Execution:** Web application files and deployment-ready scripts.

Project Timeline

Phase	Duration	Tasks Completed
Project Planning	1 day	Problem definition, tech stack finalization
Data Preprocessing	2 days	Cleaning, encoding, feature selection
Model Development	2 days	Training RF, DT, Extra Trees, SVM, XGBoost
Model Evaluation & Optimization	1-2 days	Metrics comparison, choosing best model
Deployment	1 day	Flask UI, model integration
Documentation	1 day	README, markdowns, folder organization