Team Members :

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Project Proposal: Salary Predictor

Machine Learning Type: Regression

Objective:
Develop a machine learning powered web application that predicts an individual's salary based on the following user

Work Experience (in years)
Education Level (Bachelor's, Master's, PhD)
Job Role (e.g., Software Engineer, Data Analyst, Manager)
(Optional) Location
The system should use historical salary data to learn patterns and return accurate salary estimates.

Dataset:
salary_prediction_data.csv

Preprocessing Steps:
Handle missing data
Encode categorical variables (e.g., One-Hot Encoding or Label Encoding)
Normalize/scale numerical values if required
Split into training and testing sets

Machine Learning Model
Algorithms to Use:
Primary: Linear Regression
Bonus (Improved Performance): Decision Tree Regressor / Random Forest Regressor

Evaluation Metrics:
Rı Score
Mean Absolute Error (MAE)
Mean Squared Error (MSE)

Model Output:
Save the trained model using joblib or pickle as .pkl file

Frontend Interface
UI Components:
Form Fields:

Years of Experience (Numeric Input)
Education Level (Dropdown)
Job Role (Dropdown or Autocomplete)
(Optional) Location (Text or Dropdown)
Button: "Predict Salary"
Output Section: Display predicted salary dynamically

Technologies:
HTML, CSS ,JavaScript

Backend
Framework:
Python + Flask (may be Streamlit)

Timeline (5 Day Plan)
Day Task
1 Dataset selection, preprocessing, and exploratory data analysis
2 Train and evaluate ML models (start with Linear Regression)
3 Save model and build Flask backend with prediction API
4 Design frontend UI (Form + JS + CSS)
5 Integrate frontend with backend, finalize, test, and polish