HIRING DECISION PREDICTION

Problem & Goal

Goal: Predict the hiring outcome HiringDecision (0/1) for each candidate.
Task type: Binary Classification (Hired vs Not Hired).

Data Source

Dataset: CSV file
Columns: 11 total → 10 input features + 1 target (HiringDecision).

Features (Inputs)

Input Features (10): Demographics: Age, Gender
Background: EducationLevel, ExperienceYears, PreviousCompanies
Context: DistanceFromCompany
Assessment Scores: InterviewScore, SkillScore, PersonalityScore
Process: RecruitmentStrategy

Data Preparation

Cleaning: Handle missing values, duplicates, and outliers.
Validation: Ensure realistic ranges (e.g., Age, DistanceFromCompany, Scores).
Encoding & Scaling:
Encode categorical: Gender, EducationLevel, RecruitmentStrategy
Scale numerical if needed: Age, ExperienceYears, PreviousCompanies, DistanceFromCompany, InterviewScore, SkillScore, PersonalityScore

Modeling

Split: Train/Test split (e.g., 80/20) or Cross-Validation.
Train models: Baseline + classifiers such as Logistic Regression

Evaluation & Output

Evaluate: Accuracy, Precision, Recall, F1-score + Confusion Matrix.
Select best model and optimize (hyperparameter tuning / feature importance).
Final Output: Predicted HiringDecision + hiring probability (decision support).

Dataset Columns: Age, Gender, EducationLevel, ExperienceYears, PreviousCompanies, DistanceFromCompany, InterviewScore, SkillScore, PersonalityScore, RecruitmentStrategy → HiringDecision