📋DRUG RECOMMENDATION SYSTEM STEPS TO ACHIEVEMENT

- **Step 1: Data Acquisition =** ✅

  Acquired drug patient interaction dataset (includes patient medical history, symptoms, conditions, and prescribed drugs).

- **Step 2: Data Cleaning & Preprocessing =** ✅**.**
  - Removed duplicates and irrelevant entries.
  - Handled missing values (imputation where possible).
  - Normalized categorical values (gender, condition, drug type).
- **Step 3: Data Transformation =** ✅**.**
  - Encoded categorical variables using One-Hot/Label encoding.
  - Scaled numerical features like Age, Dosage, and Lab Results.
- **Step 4: Dataset Loading =** ✅**.**

  Loaded cleaned dataset into Pandas/SQL environment for exploration and modeling.
- **Step 5: Exploratory Data Analysis (EDA) =** ✅**.**
  - Distribution plots of drug prescriptions across conditions.
  - Correlation analysis between patient features and drug recommendation.
- **Step 6: Data Modeling =** ⏳ ***In Progress...***
  - Built machine learning models (Logistic Regression, Random Forest, XGBoost) to predict the most suitable drug.
  - Compared accuracy, precision, recall, and F1-score.
- **Step 7: Data Visualization & Communication =** ❌ ***Pending...***
  - Power BI dashboards: drug–condition heatmaps, patient profiles, model prediction trends.

- **Step 8: Project Review =** ❌ ***Pending...***
    - Validated model outputs with dataset consistency.
- **Step 9: GitHub Upload =** ❌ ***Pending...***
    - Uploaded cleaned dataset, code, model, and notebooks.
- **Step 10: Task Report Submission =** ❌ ***Pending...***
    - Submitted final documentation & visuals.

Developer: AanDevAnalyst

Phone: 09036259681.

Email: nuhuabduljabbar5@gmail.com

GitHub: ⏳ ***Processing…***