TASK STATUS PROGRESS UPDATE

Task 1: Heart Disease Dataset Acquisition ✅ **(Completed).**

- ☑ Government accredited open-source healthcare dataset website.

Task 2: Heart Disease Dataset Cleaning & Preprocessing ✅ **(Completed).**

Objective: Ensure the dataset is clean and ready for EDA.
Key Actions:

- ☑ Remove duplicates.

- ☑ Handle missing values.

- ☑ Standardize formats.

Task 3: Data Transformation ✅ **(Completed).**

Task 4: Loading Cleaned & Processed Version of Heart Disease Dataset ✅ **(Completed).**

Task 5: Exploratory Data Analysis ✅ **(Completed).**

Objective: Implementation of EDA before data modeling.
Key Actions:

- ☑ Renaming column header, getting summary information of the dataset.

- ☑ Checking & removing any duplicate values and empty cells.

- ☑ Addition of new column from existing column in the data set.

- ☑ Basic Visualization using matplotlib & seaborn python library.

- ☑ Resetting dataset index using python to save output in Excel & CSV format.

- ☑ Modeling.

Task 6: Data Modeling ✅ **(Completed).**
Objective: Choosing the best fit algorithms or model to be used on the dataset.

Key Actions:

- ☑ **Evaluate different algorithms** (📈 Logistic Regression, ⚖️ Support Machine Vector (SVM), 🌲 Decision Tree & 🌲🌲🌲 Random Forest) — in testing phase

Metric	📉 Logistic Regression	⚔️ Support Machine Vector (SMV)	🌲 Decision Tree	🌲🌲🌲 Random Forest
Accuracy	✅85.87%	84.24%	80.98%	84.24%
Precision	✅85.85%	85.44%	83.17%	84.76%
Recall	✅89.22%	86.27%	82.35%	87.25%
F1-Score	✅87.50%	85.85%	82.76%	85.99%

- ☑ **Select and justify the best model** based on dataset characteristics.

- ☑ Model Training.

- ☑ **Data Engineering** & **Model Implementation** after selecting the best fit model.

Task 7: Data Visualization & Communication ✅ **(Completed).**

- ☑ Power BI Visualization Report.
- ☑ PDF Visualization Report.
- ☑ Image Visualization Report.

Task 8: Project Review ✅ **(Completed).**

Task 9: Project Upload to GitHub ✅ **(Completed).**

Task 10: Project Task Report Submission ✅ **(Completed 💯).**

Developer: AanDevAnalyst

📞 **Phone:** 09036259681.

📧 Email: nuhuabduljabbar5@gmail.com

🔗 GitHub: *Completed 💯*