part4.md 2025-06-26

Part 4: Reflection & Workflow Diagram (10 points)

1. Reflection (5 points)

Most Challenging Part:

"Data Strategy & Preprocessing" — It required aligning technical accuracy with ethical and real-world constraints. Balancing the need for clean, structured data while protecting patient privacy was a tough line to walk.

How I Would Improve With More Time/Resources:

- Collect a more diverse dataset from multiple hospitals
- Collaborate with domain experts (doctors, nurses) for better feature engineering
- Explore fairness-aware machine learning libraries like Fairlearn
- Deploy a prototype and collect real user feedback to iterate

2. Workflow Diagram (5 points)

Start ↓ Problem Definition ↓ Data Collection ↓ Data Preprocessing ↓ Model Selection ↓ Training & Validation ↓ Model Evaluation ↓ Deployment ↓ Monitoring & Optimization ↓ End

☑ This pipeline ensures a systematic, ethical, and reliable approach to building an AI model for healthcare.