

Sprint Retrospective Meeting Minutes

Attendees: Stefany Castro, Alyaa Mossa, Chelsea Ross, Fernando Mata, Ogabek Rakhimov

Start time: 7:00 PM

End time: 8:03PM

What went wrong?

- Did we do a good job estimating our team's velocity?
 - Yes
- Did we do a good job estimating the points (time required) for each user story?
 - Yes
- Did each team member work as scheduled?
 - Yes

What Went Well

- The machine learning models from the previous sprint were successfully trained and evaluated, providing a strong foundation for further development.
- Data preprocessing and feature engineering were completed effectively, ensuring that the dataset is clean and suitable for explainability analysis.
- The team established a clear pipeline for model training and evaluation, making it easier to extend into explainability and UI integration.
- Collaboration between team members was effective, allowing tasks such as data processing and model development to be completed on time.

What Could Be Improved

- While the model achieved reasonable performance, it currently lacks interpretability, making it difficult to understand how predictions are being made.
- There is limited visibility into which features are most influential, which is critical for a healthcare-based application.
- Integration between different components (data, model, and future UI) has not yet been fully established.
- Documentation of model behavior and outputs could be improved to support the next phase of development.

Action Items for Sprint 5

Process Improvements:

- Begin planning integration (model + explainability + UI) earlier in the sprint to avoid bottlenecks later.
- Introduce incremental testing when adding new components instead of waiting until full implementation.

- Improve task distribution by aligning responsibilities with upcoming sprint goals (explainability, validation, UI).
- Maintain more consistent documentation throughout development to track progress and decisions.

Product Improvements:

- Add explainability methods such as SHAP to better understand model predictions.
- Identify and visualize key features contributing to CKD predictions to improve transparency.
- Develop a user interface that allows interaction with the model and displays predictions clearly.
- Ensure that model outputs align with known clinical indicators such as creatinine and eGFR to improve reliability.

Overall Reflection

- The previous sprint successfully established a working machine learning model, which serves as the foundation for the next phase of development.
- However, the system is still limited in terms of interpretability and usability, which are essential for healthcare applications.
- Sprint 5 will focus on bridging this gap by introducing explainability and user interaction, moving the project closer to a real-world, deployable solution.
- Overall, the team is well-positioned to build upon the existing work and enhance both the functionality and usability of the system in the upcoming sprint.