

### SPRINT RETROSPECTIVE 3

| What Went Well  | What Could Be Improved  | Action Items / Improvements for Next Sprint  |
|---|---|--|
| The final model using finetuned LSTM architecture delivered improved classification accuracy and reduced overfitting.   | Real-time testing was limited to pre-recorded video. Future work could include a live webcam-based inference module.    | Expand Dataset with more diverse gait samples to improve generalization.                               |
| Full automation from video frame extraction → pose detection (MediaPipe) → sequence generation → KOA severity prediction was implemented and tested successfully. | While a basic interface was designed, a more intuitive and interactive UI for healthcare professionals could be built.  | Deploy model on a web-based or mobile interface for real-time clinical utility.                        |
| Functional and validation test cases were created and passed as per the test plan.  | The model was trained on a small dataset; cloud deployment and edge inference possibilities are to be explored further. | Integrate explainable AI (XAI) methods to interpret predictions and improve trust in medical settings. |
| All PPT slides, user stories, methodology, and architecture diagrams were documented clearly for review.  |   | Collaborate with healthcare professionals for feedback and iterative improvements.                     |
| Literature survey and SDG justification aligned well with the project's real-world impact.  |   |  |
| Task assignments, sprint goals, and progress tracking using <b>MS Planner</b> were managed efficiently.   |   |  |