

Meeting Date:	04.02.2025	Semester:	07	Week:	01
Work carried out since the last meeting					
<p>1. Selected the project topic from the given list.</p> <p>2. Reviewed the project proposal provided by the supervisor.</p> <p>3. Attended a meeting with the supervisor to discuss:</p> <ul style="list-style-type: none"> ● Project requirements and expectations. ● The importance of automating parameters in the infant incubator. ● The need to identify which parameters should be automated. 					
Work planned for the coming week					
<p>1. Research and list existing infant incubator systems.</p>					
Signature of the supervisor:					

Meeting Date:	11.02.2025	Semester:	07	Week:	02
Work carried out since the last meeting					
<ol style="list-style-type: none">1. Researched existing infant incubator systems and technologies.2. Collected information on how current incubators work and their parameters.					
Work planned for the coming week					
<ol style="list-style-type: none">1. Identify all possible parameters controlled and monitored in an infant incubator.					
Signature of the supervisor:					

Meeting Date:	18.02.2025	Semester:	07	Week:	03
Work carried out since the last meeting					
<p>1. Research and list all possible parameters controlled and monitored in an infant incubator (e.g., temperature, age, weight, humidity, oxygen level, heart rate, respiratory rate).</p> <p>2. Analyze and select the most critical parameters suitable for automation.</p>					
Work planned for the coming week					
<p>1. Contact hospitals to schedule and plan the NICU visit.</p>					
Signature of the supervisor:					

Meeting Date:	25.02.2025	Semester:	07	Week:	04
Work carried out since the last meeting					
<p>1. Contact hospitals to get permission to visit the NICU and observe a live incubator.</p> <p>2. Document findings from research and NICU observation for proposal preparation.</p>					
Work planned for the coming week					
<p>1. Get the permission to visit NICU at Karapitiya Hospital.</p>					
Signature of the supervisor:					

Meeting Date:	04.03.2025	Semester:	07	Week:	05
Work carried out since the last meeting					
<p>1. Obtained permission to visit the NICU at Karapitiya Teaching Hospital.</p> <p>2. Visited the NICU and observed the live incubators in operation and discussed with doctors and nurses about the working process of the incubators.</p> <p>3. Identified temperature as the most critical parameter monitored directly by the incubator.</p> <p>4. Learned that heart rate, oxygen level, and respiratory rate are monitored separately using other instruments connected to the baby.</p> <p>5. Received feedback that integrating all these monitoring systems into the incubator would be beneficial.</p> <p>6. Observed that parents have limited visiting times due to NICU being a critical area.</p>					
Work planned for the coming week					
<p>1. Discuss the NICU observations with the supervisor and select the project scope.</p>					
Signature of the supervisor:					

Meeting Date:	11.03.2025	Semester:	07	Week:	06
Work carried out since the last meeting					
<p>1. Had a follow-up meeting with the supervisor to discuss observations from the NICU visit.</p> <p>2. Supervisor advised us to start drafting the project proposal.</p> <p>3. Discussed the possibility of using machine learning algorithms and the need to decide what predictions the system should make.</p>					
Work planned for the coming week					
<p>1. Start preparing the project proposal based on the supervisor's guidance and NICU observations.</p> <p>2. Continue gathering additional research materials related to automated incubator systems and neonatal care for the proposal.</p>					
Signature of the supervisor:					

Meeting Date:	18.03.2025	Semester:	07	Week:	07
Work carried out since the last meeting					
<p>1. Prepared the project proposal based on NICU observations and supervisor's guidance.</p> <p>2. Identified the lack of predictive capability in current incubators to detect infant distress or abnormal status.</p> <p>3. Selected infant distress prediction as the machine learning application for the project.</p> <p>4. Planned to add a remote monitoring feature for doctors and parents to watch the baby's condition without physically engaging.</p>					
Work planned for the coming week					
<p>1. Correct citation mistakes in the project proposal as per supervisor's feedback.</p> <p>2. Revise and reduce the budget estimation in the proposal.</p> <p>3. Finalize the project proposal document and submit.</p>					
Signature of the supervisor:					

Meeting Date:	25.03.2025	Semester:	07	Week:	08
Work carried out since the last meeting					
<ol style="list-style-type: none">1. Searched for publicly available datasets.2. Found cry detection dataset and jaundice detection dataset from Kaggle.					
Work planned for the coming week					
<ol style="list-style-type: none">1. Further research on:<ul style="list-style-type: none">• Machine learning models for predicting infant distress.• Technology options for implementing remote monitoring.					
Signature of the supervisor:					

Meeting Date:	01.04.2025	Semester:	07	Week:	09
Work carried out since the last meeting					
<ol style="list-style-type: none">1. Changed the Scope of the project to address the problems discussed in the evaluation.2. Created the revised project proposal and submit the report.					
Work planned for the coming week					
<ol style="list-style-type: none">1. Start implementing the project by collecting requirements.					
Signature of the supervisor:					

Meeting Date:	08.04.2025	Semester:		Week:	10
Work carried out since the last meeting					
6 th Semester Exam Study Leave.					
Work planned for the coming week					
Signature of the supervisor:					

Meeting Date:	15.04.2025	Semester:		Week:	11
Work carried out since the last meeting					
6 th Semester Exam.					
Work planned for the coming week					
Signature of the supervisor:					

Meeting Date:	22.04.2025	Semester:		Week:	12
Work carried out since the last meeting					
6 th Semester Exam.					
Work planned for the coming week					
Signature of the supervisor:					

Meeting Date:	29.04.2025	Semester:		Week:	13
Work carried out since the last meeting					
<ol style="list-style-type: none">1. Collected project requirements and studied similar systems.2. Planned system architecture and defined key modules.					
Work planned for the coming week					
<ol style="list-style-type: none">1. Start training a machine learning model for Jaundice detection					
Signature of the supervisor:					

Meeting Date:	06.05.2025	Semester:		Week:	14
Work carried out since the last meeting					
<ol style="list-style-type: none">1. Divided responsibilities within group.2. Assigned to complete ML pipelines and system integration.3. Finalized shared resources for each member in GitHub, Colab and google drive.					
Work planned for the coming week					
<ol style="list-style-type: none">1. Starting setup environment to train the jaundice model					
Signature of the supervisor:					

Meeting Date:	13.05.2025	Semester:		Week:	15
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Work carried out since the last meeting					
<p>1. Initiated training pipeline using Kaggle dataset. 2. Applied MobileNetV3-Small architecture with transfer learning. 3. Introduced lighting-robust enhancements (CLAHE, brightness detection). 4. Trained model with 10 epochs and evaluated base vs. robust accuracy.</p>					
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Work planned for the coming week					
<p>1. Export model to ONNX and build demo UI.</p>					
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Signature of the supervisor:					
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Meeting Date:	20.05.2025	Semester:		Week:	16
Work carried out since the last meeting					
<ol style="list-style-type: none">1. Built local Streamlit web app with webcam integration.2. Integrated brightness-aware feedback and confidence score.3. Tested predictions using baby image samples.					
Work planned for the coming week					
<ol style="list-style-type: none">1. Prepare Raspberry Pi environment and test deployment.					
Signature of the supervisor:					

Meeting Date:	27.05.2025	Semester:		Week:	17
Work carried out since the last meeting					
1. Installed Raspberry Pi OS Desktop (32-bit); faced compatibility issues. 2. Then flashed 64-bit Lite OS; configured SSH and terminal access. 3. Installed Python, OpenCV, PyTorch, ONNX Runtime and other dependenci					
Work planned for the coming week					
1. Deploy ONNX model to Pi and test.					
Signature of the supervisor:					

Meeting Date:	03.06.2025	Semester:		Week:	18
Work carried out since the last meeting					
1. Successfully ran ONNX model on Pi using terminal. 2. Verified predictions from webcam input. 3. Adjusted camera settings for light handling.					
Work planned for the coming week					
1. Begin test audio recording and processing.					
Signature of the supervisor:					

Meeting Date:	10.06.2025	Semester:		Week:	19
Work carried out since the last meeting					
<ol style="list-style-type: none">1. Recorded audio samples using webcam mic.2. Confirmed mic input and waveform detection.3. Evaluated audio clarity and duration for training.					
Work planned for the coming week					
<ol style="list-style-type: none">1. Explore ML model integration for cry classification.					
Signature of the supervisor:					

Meeting Date:	17.06.2025	Semester:		Week:	20
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Work carried out since the last meeting					
<p>1. Integrated webcam stream with local prediction pipeline. 2. Combined live jaundice detection and real-time camera preview. 3. Confirmed model inference and UI feedback loop.</p>					
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Work planned for the coming week					
<p>1. Continue multi-model integration testing.</p>					
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Signature of the supervisor:					
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Meeting Date:	24.06.2025	Semester:		Week:	21
Work carried out since the last meeting					
<ol style="list-style-type: none">1. Finalized setup to support parallel ML processes on Pi.2. Tested system load and performance.3. Added environmental sensor data collection and monitoring.					
Work planned for the coming week					
<ol style="list-style-type: none">1. Prepare images and test samples for LCD reader model.					
Signature of the supervisor:					

Meeting Date:	01.07.2025	Semester:		Week:	22
Work carried out since the last meeting					
7 th Semester Exam Study Leave.					
Work planned for the coming week					
Signature of the supervisor:					

Meeting Date:	08.07.2025	Semester:		Week:	23
Work carried out since the last meeting					
7 th Semester Exam.					
Work planned for the coming week					
Signature of the supervisor:					

Meeting Date:	15.07.2025	Semester:		Week:	24
Work carried out since the last meeting					
7 th Semester Exam.					
Work planned for the coming week					
Signature of the supervisor:					

Meeting Date:	22.07.2025	Semester:		Week:	25
Work carried out since the last meeting					
<ol style="list-style-type: none">1. Captured incubator display images from NICU.2. Analyzed sample variations and lighting conditions.3. Shared data with teammate handling LCD OCR model.					
Work planned for the coming week					
<ol style="list-style-type: none">1. Write and review Methodology section.					
Signature of the supervisor:					

Meeting Date:	29.07.2025	Semester:		Week:	26
Work carried out since the last meeting					
1. Reviewed current system and re-tested ML pipelines. 2. Validated robustness and logging features.					
Work planned for the coming week					
1. Start drafting individual progress report.					
Signature of the supervisor:					

Meeting Date:	05.08.2025	Semester:		Week:	27
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Work carried out since the last meeting					
<p>1. Drafted Jaundice model methodology and architecture explanation. 2. Wrote system integration narrative for Raspberry Pi setup. 3. Collected visuals and architecture diagrams. 4. Completed progress report of worked parts. 5. Formatted and finalized logbook for submission.</p>					
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Work planned for the coming week					
<p>1. Submit the project progress report and ready for the progress evaluation.</p>					
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Signature of the supervisor:					
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