Skin Cancer Detection App

Faculty Advisor:

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Team Members

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Client:

Dr. Zahra Nematzadeh | College of Engineering and Science: Department of Electrical Engineering and Computer Science

Task	Completion %	Lawson	Nick	Christain	Nikiraj	To do
1. Investigate tools	100%	25%	25%	25%	25%	none
2. Hello World demos	100%	70%	10%	10%	10%	none
3. Requirement Document	100%	0%	100%	0%	0%	none
4. Design Document	100%	0%	0%	0%	100%	none
5. Test Plan	100%	0%	0%	100%	0%	none
6. Implement, test & demo	100%	70%	10%	10%	10%	none

Discussion (at least a paragraph) of each accomplished task (and obstacles) for the current Milestone:

Task 1: At the start of the milestone, the team focused on exploring and evaluating different tools that could be used to build and test the mobile application. We investigated Flutter for cross-platform development, TensorFlow Lite for on-device inference, and supporting tools like OpenCV for preprocessing. Each team member researched a different area to distribute the workload.

Task 2: Lawson successfully created a Flutter demo app and ran it. The app showcased the camera feature, where users can click on a button and open their camera. The app also implements an upload feature, where users can upload a photo if they already have it saved.
Task 3: Nick drafted the Requirement Document, with feedback from the rest of the group. This document detailed the purpose, scope, assumptions, dependencies, functional and non-functional requirements, and supporting information for the project. The team reviewed it together to ensure consistency and coverage.
Task 4: Nikiraj took lead in drafting the Design Document, outlining the architecture of the system, the data flow from capture to classification, and the UI design principles
Task 5: Christian drafted the Test Plan Document. The document fully details the specifications of each requirement listed in the Requirements Document. This includes written test cases with structured elements: requirement objectives, the various normal and unusual inputs, expected outputs, and user/system-centered procedures.
Task 6: Implementation and testing were distributed across the team. Lawson contributed most heavily, while Nick, Christian, and Nikiraj each focused on smaller portions.

Discussion (at least a paragraph) of the contribution of each team member to the current Milestone:

Lawson: Lawson took responsibility for creating the Hello World demo and leading the initial implementation of the CNN on the dataset. His work ensured that the project had a working foundation early on, which allowed the rest of the team to visualize how the model would integrate with the app. He also collaborated with the group by incorporating feedback from Nick, Nikiraj, and Christian, particularly regarding how features could be refined for better performance or extended in future iterations.
Nick: Nick's primary responsibility was writing the Requirement Document, which laid out the scope, purpose, and detailed requirements of the system. This provided the blueprint for the

rest of the team to follow during development. In addition to writing the document, Nick also gave constructive feedback on the demos and CNN implementation, pointing out areas where functionality could be improved and suggesting enhancements that could be pursued in later stages of the project.

Nikiraj: Nikiraj's primary responsibility was the Design Document, ensuring that the architecture, data flow, and interface considerations were clearly mapped out. His work provided the team with a visual and structural understanding of how different components of the system should interact. Beyond this, he also reviewed the demos and implementation work, offering insights on possible improvements and helping guide decisions on features that might be added or refined in the future.

Christian: Christian's primary responsibility was developing the Test Plan document, which outlined how the team would verify that the system meets its requirements. His work included identifying test cases, considering both standard and unusual inputs, and ensuring that functional and non-functional requirements were covered. Alongside this, Christian also contributed by evaluating the demos and CNN implementation, suggesting ways the team could improve current features and brainstorming enhancements for subsequent versions of the app.

Discussion (at least a paragraph) of each planned task for the next Milestone:

Plan for the next milestone:

Task	Lawson	Nick	Christain	Nikiraj
1. Implement, test, and demo image capture and upload feature with UI framing assistance	Lead development of capture and overlay module	Support testing with different image types	Validate consistency of captured images and report bugs	Document capture workflow and assist with debugging
2. Implement, test, and demo real-time AI-powered prediction feature (integrated TensorFlow Lite CNN model)	Lead integration of TFLite CNN into iPhone app	Assist with connecting preprocessing pipeline	Run performance tests on phone hardware (speed, memory usage)	Verify prediction outputs, confidence display, and error handling
3. Implement, test, and demo disclaimer and educational resource integration (user guidance, preventive info, professional links)	Support UI layout for disclaimers on phone screens	Draft and refine disclaimer wording and educational text	Lead integration of disclaimers and resource links into the iOS app	Test readability, accessibility features
4. Validate prototype with test images and document early usability findings	Run live demos on iPhones and gather user impressions	Lead writing of usability report with structured findings	Conduct systematic testing with edge-case images	Lead analysis of feedback and propose refinements for next milestone

Date(s) of meeting(s) with Client during the current milestone:

9/29/2025

Client feedback on the current milestone

See Faculty Advisor Feedback below

Date(s) of meeting(s) with Faculty Advisor during the current milestone:

9/29/2025

Faculty Advisor feedback on each task for the current Milestone

Task 1:

Task 2:

Task 3:

Task 4:

Task 5:

Task 6:

Faculty Advisor Signature: _____ Date: _____

Evaluation by Faculty Advisor

- Faculty Advisor: detach and return this page to Dr. Chan (HC 209) or email the scores to pkc@cs.fit.edu
- Score (0-10) for each member: circle a score (or circle two adjacent scores for .25 or write down a real number between 0 and 10)

Nick	1	2	3	4	5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10
Lawson	1	2	3	4	5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10
Nikiraj	1	2	3	4	5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10
Christain	1	2	3	4	5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10