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# CODE2CARE HACKATHON

*Co-creating AI Solutions for Douala General Hospital*



August 4<sup>th</sup> -8<sup>th</sup>, 2025,  
Douala, Cameroon  
[www.dswb.africa](http://www.dswb.africa)

# Exclusive Summary

The **DSWB-DGH CODE2CARE Hackathon 2025**, held from July 9 to August 7, brought together 140 young innovators and data science professionals to co-create practical digital health solutions. Out of 43 applications, 31 teams were selected based on their competencies and complementary skills. Organized by Douala General Hospital (DGH) in partnership with the DSWB consortium, the CODE2CARE Hackathon addressed three key health challenges:

- **Patient feedback and reminder management**
- **AI-powered diagnostic and education tools**
- **Blood bank stock monitoring and forecasting using AI**

Over three weeks online and a two-day onsite engagement, participants worked with mentors and judges through structured training, checkpoints, and final pitching sessions. The event culminated in deployable AI solutions such as a smart patient reminder system, an AI-powered chatbot, and a blood bank dashboard. Prizes worth **1,900,000 FCFA** and continued mentorship opportunities were awarded to top teams. Participant feedback showed strong satisfaction: over **60%** rated the hackathon as excellent, while others found it good to very good. The machine learning and generative AI workshops were considered useful, though some participants requested deeper, more advanced content.

Mentorship and collaboration were highlighted as valuable, but feedback also called for more structured mentor follow-up. Logistical aspects were positively received, with the venue and organization rated highly, although some noted challenges with internet stability and technical setup. Importantly, 100% of respondents said they would recommend the hackathon to peers, underscoring its value and impact.

Overall, the hackathon not only produced high-quality, context-sensitive health data innovations but also strengthened technical skills, fostered collaboration, and set the foundation for sustainable digital health transformation in Cameroon.



# Acknowledgment

We would like to sincerely thank everyone who made the **DSWB-DGH Hackathon 2025** a success.

First, to all the **participants** – your creativity, teamwork, and dedication gave life to this event. Without your energy and commitment, this hackathon would not have been possible.

A big thank you to our **mentors and judges** from **AHRI, LSHTM, OSPO Now, APHRC, and local partners**. Your time, advice, and encouragement helped shape the innovative and practical solutions that came out of this hackathon.

We are also grateful to the **DSWB consortium leadership** for their vision and to the **Douala General Hospital teams** for their support with logistics, administration, and behind-the-scenes coordination.

Special thanks go to our **funder, the Wellcome Trust**, whose support made this whole initiative possible. Your commitment to advancing data science and health innovation continues to inspire us.

We deeply appreciate all our **partner institutions** who stood by us and supported our mission to grow open-source innovation and data science capacity here in Cameroon and beyond.



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African Population and  
Health Research Center



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Centres for Disease Control  
and Prevention



Makerere  
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# 1 Thematic area selection

## 1.1 Thematic area

### 1.1.1 Patient Feedback and Reminder Management System

Language diversity remains a major barrier to quality healthcare access, especially in low- and middle-income countries, like Cameroon, where patients often speak local dialects while health systems operate in English or French. This multilingual feedback interface aims to close this gap by enabling patients to provide text or voice input in their preferred language, which can be automatically translated and processed using NLP tools like spaCy and Hugging Face. Such systems can classify and summarize patient feedback, generate insights for providers, and support personalized reminders through SMS or voice using tools like Twilio or RapidPro. Dashboards built with D3.js, Plotly, or React.js allow real-time monitoring of patient sentiment and recurring issues, turning unstructured multilingual data into actionable health insights. By breaking down linguistic barriers, multilingual feedback systems promote inclusivity, strengthen patient-provider communication, and improve treatment outcomes.

### 1.1.2 AI-Powered Education and Diagnostic Support

This track focuses on developing conversational AI chatbots powered by LLMs such as LLaMA, Mistral, or Google Gemini that can deliver accurate, multilingual explanations of health information in simple language. This will be integrated into mobile or web platforms using React.js or Flutter, where these chatbots will explain diagnoses, guide medication use, and support follow-up care. Their accuracy will be evaluated against clinician answers, while usability is tested with patients to ensure reliability and trust. By simplifying complex information, conversational AI enhances patient understanding, improves adherence, and reduces communication barriers in healthcare.

### 1.1.3 Blood Bank Management System

This track focuses on developing an AI-driven solution that integrates with DHIS2 and other health information systems via RESTful APIs to unify donor and recipient data. A hybrid forecasting engine, combining statistical models such as STL decomposition and ARIMA with machine learning approaches like XGBoost and TensorFlow, predicts blood demand and availability with greater accuracy. A real-time dashboard built with React.js, Plotly, and D3.js provides health managers with insights on stock levels, trends, and alerts, enabling proactive decision-making. By utilizing AI for integration and forecasting, this system strengthens blood bank operations, reduces stock imbalances, and ensures timely access to life-saving blood supplies.



## 2 The Hackathon

The **CODE2CARE Hackathon**, organized by the DSWB Douala General Hospital (DGH) team, served as a dynamic platform for innovation, collaboration, and research. The event enabled participants to engage with experts, share insights, and develop technology-driven solutions to address key healthcare challenges.

Based on innovations listed in the DGH tracker, three projects were prioritized for support through the hackathon and student-led initiatives:

1. **Patient Feedback and Reminder Management System**
2. **AI-Powered Education and Diagnostic Support (LLMs)**
3. **Blood Bank Stock Monitoring and Forecasting Using AI**

A concept note outlining these tracks was developed by the technical team to guide both the follow-up and evaluation of participating teams throughout the event

### 2.1.1 The Pre-Hackathon

#### 2.1.2 Call for Applications

The call for applications was launched by the Douala General Hospital team on July 1, 2025, with a deadline of July 9, 2025. The call was primarily disseminated via social media platforms such as LinkedIn and WhatsApp, with relays in professional networks such as the DSWB LinkedIn page.

At the end of the period, a total of 43 teams submitted their applications. The selection was based on explicit criteria communicated at the time of the announcement, consistent with the innovation axes of the CODE2CARE hackathon.



The eligibility requirements included:

- **A team composition of 4 to 5 members;**
- **The presence of at least one developer and at least one data scientist per team;**
- **Each member's possession of an active GitHub account;**
- **Residency in Cameroon.**

Based on all this eligibility and basic verification, 31 teams were selected to participate, representing a rate of 72.1%. This step enabled the creation of a cohort aligned with the needs of the CODE2CARE Hackathon.

### 2.1.3 Application Form Overview

The application form deployed on Google Forms (link included in the call) was designed to collect standardized information to facilitate pre-selection, team composition, and participant orientation. The key sections covered:

- Team characteristics (team name, availability during the event, etc.)
- Number and identity of team members, as well as their contact information.
- Profiles and skills of each member;
- Understanding the hackathon (brief motivation)
- Confidentiality agreement and acceptance of the hackathon rules and policies.

At the close of the application period, we had 43 registered applications. Based on the criteria outlined in the offer, a curation process was conducted. This consisted of removing duplicates, verifying team eligibility, and harmonizing team information. At the end of this period, a final list of 31 teams was invited to participate in the hackathon.

### 2.1.4 Competition Format

The competition format was communicated to the selected teams during the official hackathon kickoff briefing session, reminding each team of the various innovations, technologies to be used, software, and languages. They were also explained the

deliverables expected at the end of each week in each team's GitHub repository, which contained the code, a README file, and deployment links, if already completed. Furthermore, they were also reminded that each team had to add four DSWB supervisors to their repositories. They were also reminded of the ownership rules at the end of the hackathon.

This framework established clear expectations upfront and ensured fairness between teams while still allowing sufficient implementation freedom to foster creativity and clinical relevance.

## 2.2 Platform Selection

The choice of platforms met the requirements of simplicity, accessibility, and traceability:

- **Google Forms** for the structured collection of applications (speed of deployment, easy export for curation).
- **Gmail** was used to share official communications during the process (team selection, sharing of rules and procedures, etc.).
- **GitHub** was used as a central repository for technical deliverables: source code, basic issue management, README, and commit timestamps ensuring minimal traceability.
- **Low-friction communication channels** (Discord for quick/logistical announcements and short exchanges), supplemented, where appropriate, by group messages to standardize essential information (deadlines, reminders, instructions).

This choice reduced the barrier to entry for the teams, standardized information collection, and ensured transparency regarding progress and delivery of deliverables.

By rigorously structuring the pre-hackathon phase (dated and targeted announcement, clear criteria, standardized form, file curation), by selecting simple and traceable

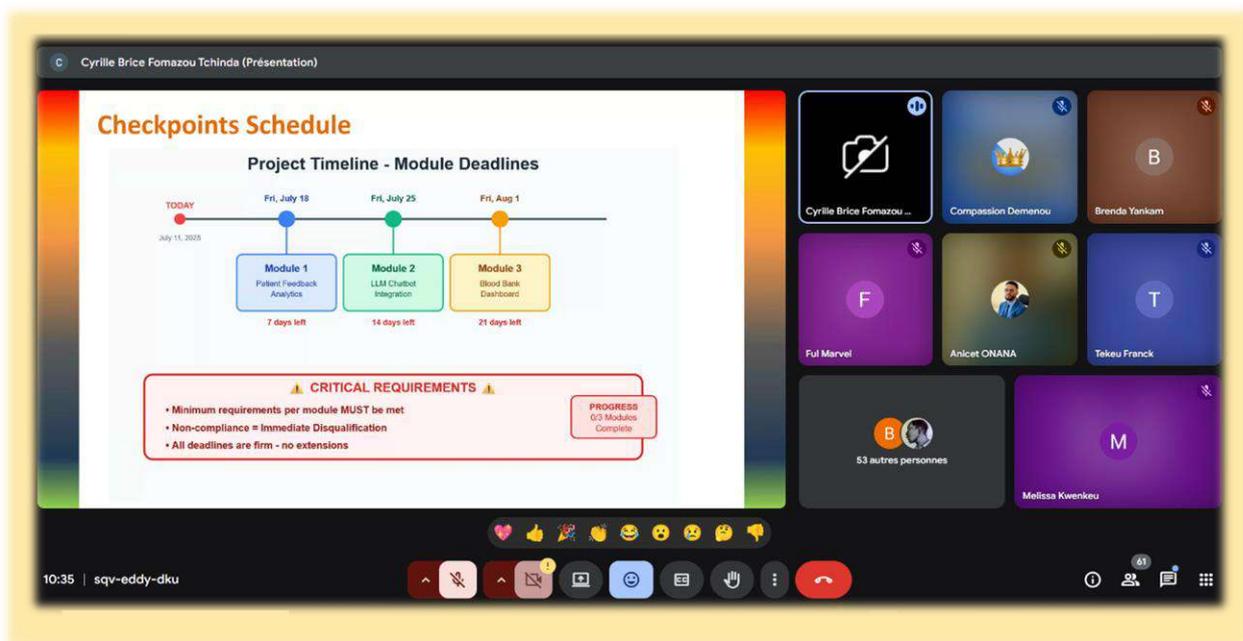
platforms (Google Forms, GitHub, rapid communication channels), and by defining readable guidelines and agreements (ownership, ethics, licenses) supported by transparent evaluation tools, the **CODE2CARE hackathon** laid solid foundations for a fair, impact-oriented competition, aligned with the hospital's operational priorities. This approach made it possible to start the event with 31 teams ready, equipped and framed to produce relevant, demonstrable and documented prototypes



# 3 Running the Hackathon

## Virtual Phase

The hackathon opened with a virtual orientation for the selected teams. In that session we explained the overall process, expectations, timelines, and the multi-gate evaluation mechanism that would determine the finalists. Teams received a technical briefing that highlighted the design principles and operational requirements they would follow throughout the event.



First, we introduced a microservice-style abstraction of the final product architecture (Figure 1). That architecture defines a modular healthcare integration platform built on a central hospital server that coordinates deployment and orchestration layers (CapRover/Coolify and a k3s cluster). Individual modules, the Patient Feedback App, an LLM API, and the Blood Bank Dashboard each connect to the database best suited to their needs (for example, PostgreSQL for patient records, ChromaDB for vector embeddings, and TimescaleDB for time-series data). The modular approach enables independent development and horizontal scaling for each service.

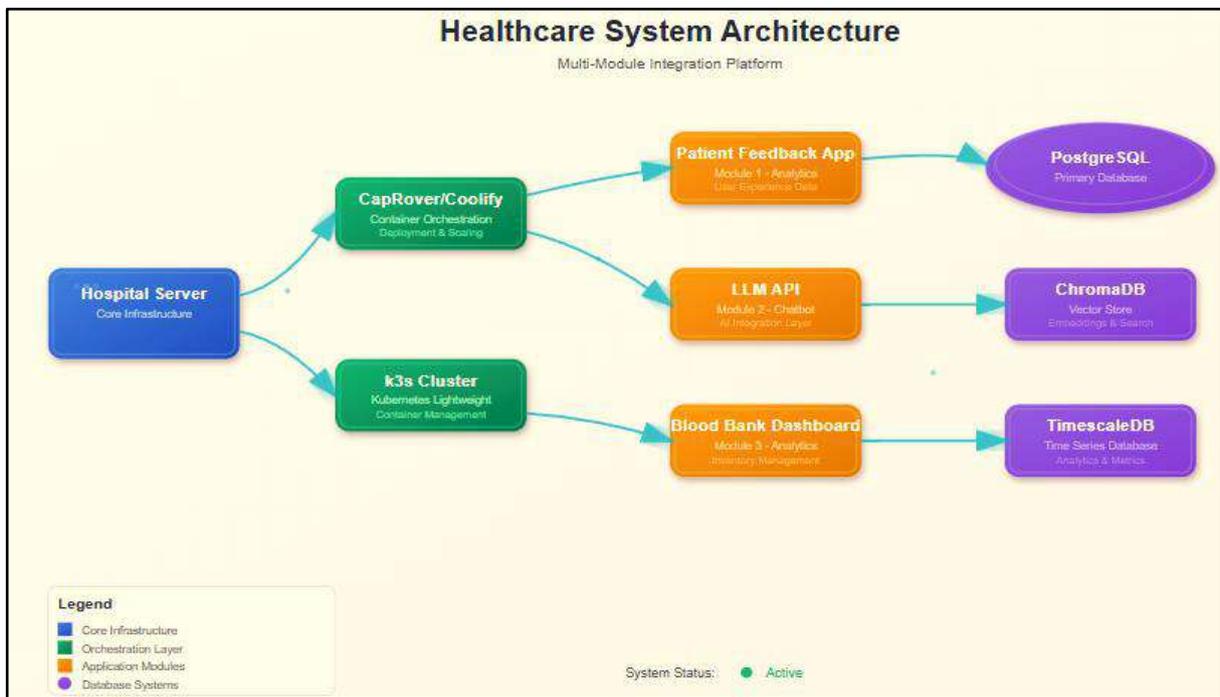


Figure 1: Simplified version of a local health system architecture

Next, we dove deeper into the application-level design (Figure 2). This detailed diagram shows how frontend applications (the Patient App and chatbot) communicate with core backend services (Analysis, Feedback, Reminder, etc.) through an API Gateway, while shared services (Auth, Event, Notification) provide cross-cutting support. The architecture also illustrates integrations with external platforms such as Twitter and Google, demonstrating how the system can exchange data with outside services.

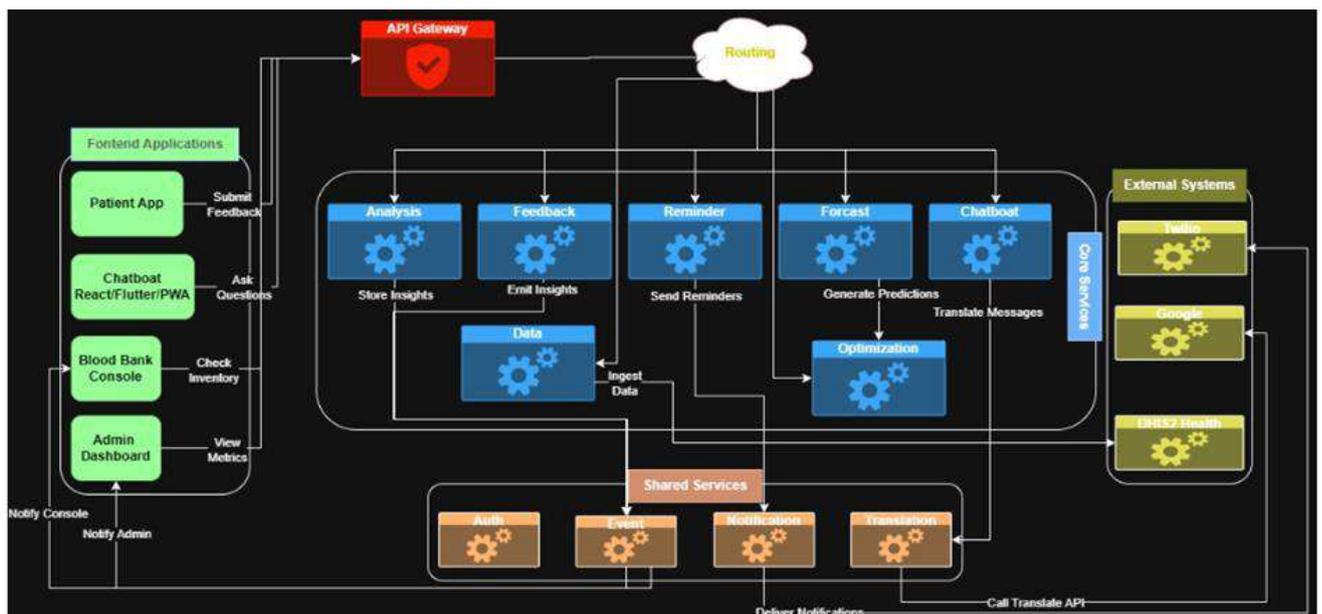


Figure 2: Microservice-like abstract representation of the final product's Architecture

The teams were given a clear project timeline with strict deadlines, as shown in Figure 3. The timeline indicated that the hackathon was set to begin on July 11, 2025, with a series of weekly deliverables. Module 1 (Patient Feedback Analytics) was due in 7 days, Module 2 (LLM Chatbot Integration) in 14 days, and Module 3 (Blood Bank Dashboard) in 21 days. Participants were warned that meeting the minimum requirements for each module was a critical requirement, and any non-compliance would result in immediate disqualification.

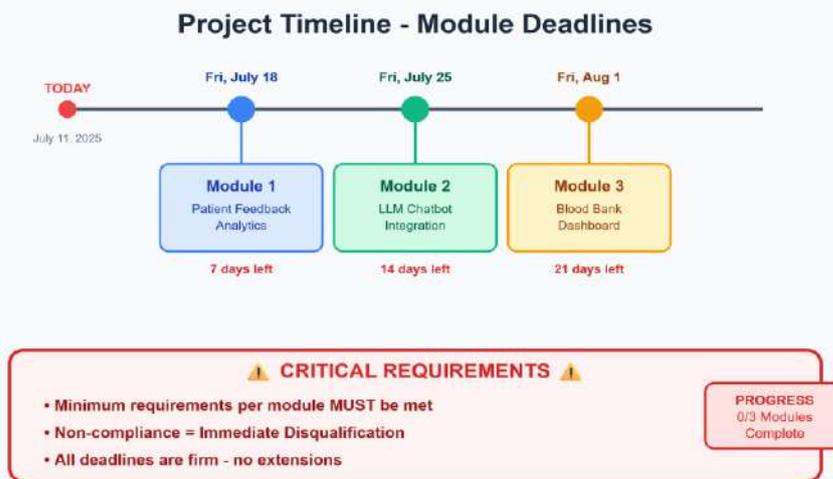
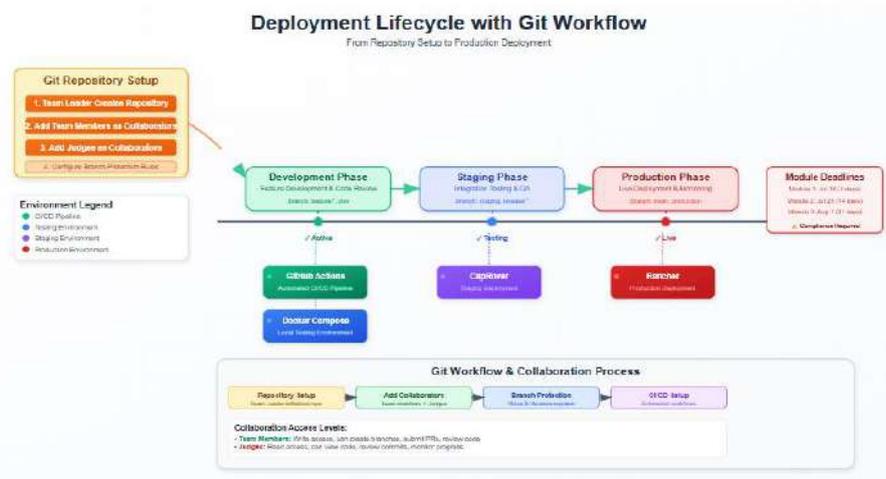


Figure 3: Project Timeline

Finally, we covered the deployment lifecycle and Git workflow (Figure 4). Teams were instructed to follow a three-phase pipeline: Development (local testing with GitHub Actions and Docker Compose), Staging (integration and QA using CapRover), and Production (live deployment and monitoring with Rancher). The workflow emphasized branch protection, CI/CD practices, and the use of automated pipelines to preserve code quality and ensure repeatable, auditable deployments.

Figure 3: Project Timeline



The follow-up phase involved continuous monitoring over a one-month period, ensuring that teams were meeting key development milestones, or "gates." During this stage, the **DSWB project objectives** and hackathon goals were reiterated to all teams.

Based on the hackathon's online assessment, teams were filtered through three progressive checkpoints. The process began with 31 registered teams, which were narrowed down to 18 after **Checkpoint 1**, based on their initial activity and GitHub repository setup. At **Checkpoint 2**, this number was further reduced to 14, as teams were required to show a deployed track or significant progress. Finally, after a thorough review at **Checkpoint 3**, where teams needed to have successfully deployed at least two complete tracks (front-end and back-end) and stated their third, **10 teams** were selected to advance to the final round.



## Phase 2: In-Person Phase

Following the gate-based evaluations, **10 teams** were selected based on their ability to meet the criteria and demonstrate viable prototypes. These finalists would go on to present their solutions at the official hackathon event.



## Arrival of International Partners

International collaborators from **APHRC, AHRI, Makerere AI, and OSPO Now** began arriving in Douala on **August 3rd, 2025**, with the remaining members arriving on **August 4th, 2025**, due to logistical delays.



The hackathon took place over **five days**, from **August 5th to August 9th, 2025**, in Douala, Cameroon.

#### August 4, 2025 – Hospital Visit and Orientation

- A working session was held at Douala General Hospital to finalize preparations for the hackathon.
- The **Cameroon project coordinator** presented the agenda and objectives of the event.
- The **DGH IT team** demonstrated the hospital’s digital systems, focusing on patient data management and the DSI system.
- This was followed by a **site tour** of DGH and a visit to the **Institut Universitaire de la Côte (IUC)**, where participants were introduced to student-led innovations.

#### August 6, 2025 – CODE2CARE Training Session

- The **CODE2CARE training** was held at the **Platinum Hotel Hall in Bonanjo**, involving 65 participants, including the 10 finalist teams, DGH staff, and IUC representatives.
- The session opened with remarks by the **program coordinator**, emphasizing the role of data science in health innovation.
- **Steve Cygu** led a training session on machine learning and generative AI in health using R, with practical case studies.
- Certificates were awarded to all participants at the end of the training.



### 3.1 Evaluation and Deliverables

The final phase of the hackathon began with a dedicated working session for the **10 finalist teams**. The goal was to provide a thorough review of the technical and functional aspects of their prototypes. This session was also a non-scoring feedback opportunity, allowing teams to refine their work before the final due date. Six teams presented their solutions online, while the remaining four presented in person. The presentations were split over two days, with five teams presenting on the first day and the others on the following day.

#### Final Assessment and Judging



The final assessment took place on **August 7, 2023**. Each team was given 30 minutes for their presentation and a Q&A session, with online teams using a dedicated Google Meet link. A moderator oversaw the process, including managing the balloting, while a resource coordinator assisted the teams. The judging panel, consisting of five judges, determined each team's final score by averaging their individual marks.

The teams were evaluated on a comprehensive set of criteria with specific point weightings:

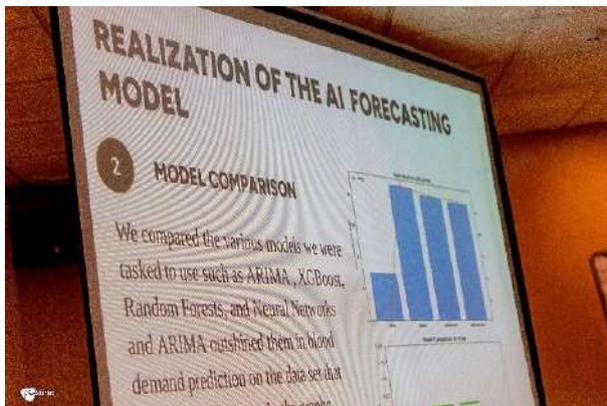
Criteria	Points	Feedback Areas
<b>Track 1: Patient Feedback System</b>	30	Sentiment analysis, data security, multiple inputs, offline functionality, visualization
<b>Track 2: LLM Chatbot</b>	30	Conversation quality, multi-language support, voice input, response accuracy, visualization
<b>Track 3: Blood Bank Dashboard</b>	25	Stock monitoring, demand forecasting, donor management, resource optimization, visualization
<b>Technical Execution</b>	10	
<b>Track Integration</b>	15	
<b>AI/ML Integration</b>	15	
<b>Innovation</b>	10	
<b>User Experience &amp; Design</b>	15	
<b>Pitch &amp; Demo</b>	20	

The diverse weighting of these criteria ensured that teams were evaluated on both the technical quality and practical impact of their solutions for a total of 170 points.

### Outcome

Based on the final averaged scores, **four teams** were awarded for their outstanding work and innovative solutions. The hackathon was a resounding success, effectively demonstrating the potential of AI to address critical healthcare challenges in

Cameroon and establishing a strong foundation for future development and collaboration in the region.



### 3.2 Awards and Recognition

All 10 teams presented their prototypes before a panel of judges comprising **Steve Cygu, Samuel Iddi, Alvin Nahabwe, Brenda Yankam, and Cyrille Fomazou.**

After careful evaluation, the winners were announced:



 **1st Place: Team SAMIR – Smart Patient Reminder System** (Lead: Navou Momo Lebon)

 **2nd Place: Team CARECHAT – AI-powered Health Chatbot** (Lead: Asongwa Franck Tongwa)

 **3rd Place: Team HEXA – Data-Driven Decision Support** (Lead: Mushieh Edison)



A special recognition was awarded to the **GENeZ Team** for their innovative **Blood Bank Management Solution**, directly aligning with DSWB's goals.



Group photo with all participants



# 4 Feedback

## August 8, 2025 – Hackathon Debrief

The final day focused on **reflection and feedback**, where participants discussed **lessons learned, challenges faced, and strategies used** throughout the hackathon. A detailed debrief from this session is included in the annex of the full report.



## Post-Hackathon survey Report

The CODE2CARE Hackathon, hosted in Douala, Cameroon, brought together several participants, mentors, and healthcare experts from diverse backgrounds. In addition to creating an innovative and collaborative platform, this event aimed to strengthen digital healthcare to solve real-world healthcare problems.

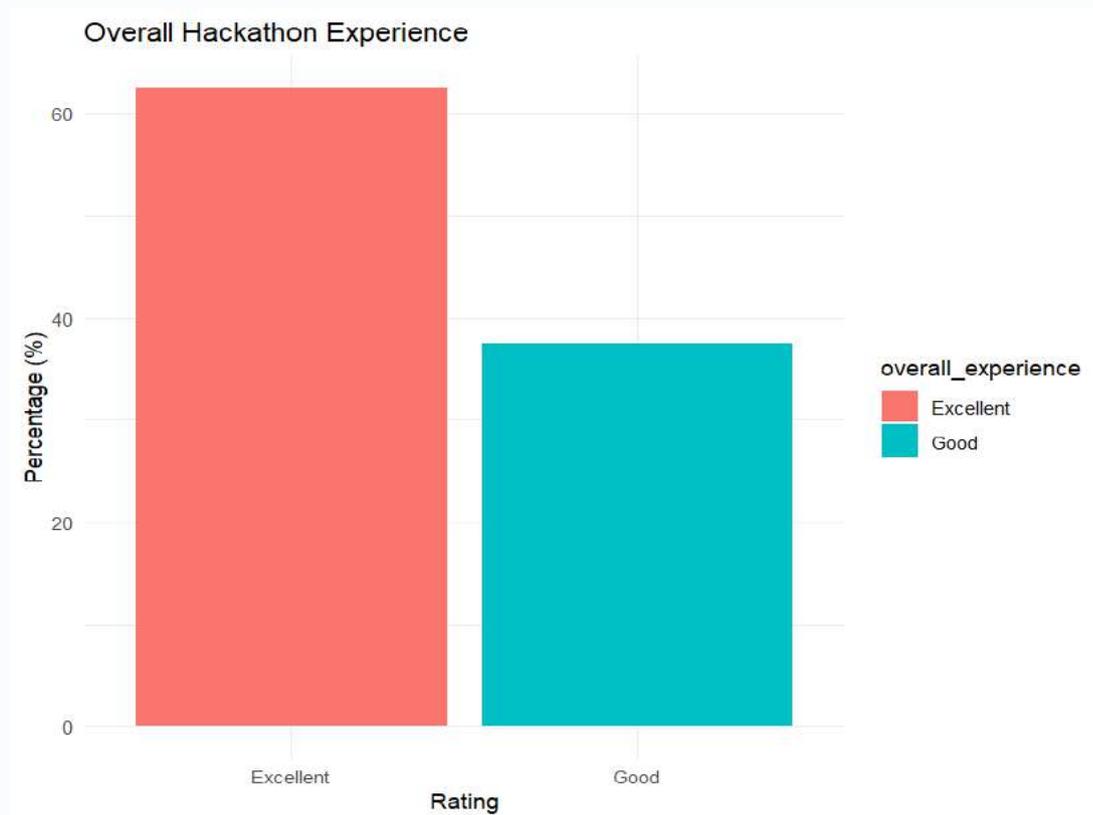
To evaluate the success of this event, an 11-question survey was created to identify areas of weakness and improvement. This document was designed to present the results of this survey and analyze the feedback from the various speakers, with the aim of generating recommendations for future editions.

The survey was administered immediately after the hackathon, and we were able to collect the opinions and responses of 16 participants. The questionnaire used was a

combination of multiple-choice questions, Likert scale questions, and open-ended questions to capture feedback from our different participants.

## 1. Results and analysis

### a. Overall Satisfaction



**Fig1: Overall Hackathon Experience Ratings among Participants**

Overall, this bar chart illustrating the participants' overall experience rating shows that experiences range from Good to Excellent. In fact, the majority, 62.5% of our respondents, rated their experience as Excellent.

This demonstrates that the CODE2CARE Hackathon met or exceeded participants expectations, establishing a strong foundation for future editions.

### **b. Learning Outcomes**

The hackathon also achieved its educational objectives. As for the usefulness of the AutoML workshop, the participants' opinions are equally split between useful (50%) and very useful (50%).

Regarding networking and collaboration, 50.0% of our participants found it really useful.

In terms of expectations, 12.5% of our respondents believe their expectations were partially met, while 37.5% say their expectations were largely exceeded during this hackathon. 50% of our participants met expectations.

These findings show us that the workshop and network achieved their purpose, but some participants expected deeper or more advanced content adapted to their profile. "The partially met" answer of our participant suggests there is room to refine and expand certain aspects of training and collaboration.

### **c. Team and Collaboration Experience**

Collaboration and teamwork were central aspects of the hackathon experience. The survey also evaluates how participants perceived the quality of the organization, the clarity of communication, and the effectiveness of mentorship throughout the event.

Regarding the organization's team and collaboration experience, the majority of our participants (56.2%) believe that the quality of the organization was very good, fair and clear. Moreover, regarding team collaboration and mentors' help during the workshop, 12.5% felt it was somewhat helpful, 50.0% felt it was helpful, and 37.5% felt it was helpful.

### **d. Organization & Logistics**

Regarding the logistics and organization of the hackathon, which took place at the COCOTIER hotel, located in Bonanjo Douala, as well as all the resources deployed, 62.5% of our participants believe that it was Excellent, while 25% considered it Good, and only 12.5% described it as Fair. These results show that the physical environment of the hackathon met the expectations of most attendees. However, the minority who

rated the facilities as only fair suggesting that some logistical details, such as internet stability, seating arrangements, could be improved.

Regarding the organizational and logistical aspect related to technical resources, such as tools, datasets and training materials, most of our respondents, 62.5%, say that it was adequate. A further 25% considered them somewhat inadequate, while 12.5% felt that resources were more than Adequate. Open feedback suggested that some workshops were slowed down by the installation of software and dependencies, consuming valuable time that could have been used for hands-on learning. This underlines the need for better technical preparation prior to the event, for example, sending installation instructions or preconfigured environments to participants ahead of time.

The organization was also evaluated from a quality point of view, as shown in table 8 below, which shows us that the majority of our participants, 56.2%, were satisfied and felt that the event was well organized and fair.

Overall, participants rated organizational and logistic aspects positively, with strong satisfaction concerning the venue and adequate ratings for technical resources.

However, the variation in perceptions of technical resources and minority reporting of a “fair” rating for facilities point to the fact that for the next editions, organizers should prepare well in provide a strong internet connectivity and clear communication of requirements to participants.

#### **e. Future Engagement**

One of the strongest indicators of a hackathon’s success is participants’ willingness to re-engage with the program and recommend it to others. 100% of our participants say they would recommend the event to their friends and family. The fact that every participant is willing to promote the hackathon suggests that the program has established a reputation for value, relevance, and quality.

#### **f. Open Feedback**

Beyond the numerical rating, participants were invited to provide open-ended feedback and suggestions for improvement. which was then broken down into themes to capture significant feedbacks:

The first emerging theme was incentive and recognition, as several participants emphasized the need for “More prizes to win based on workload.” This reflects a

perception that incentives should be aligned with participants' efforts to motivate them.

In addition to this, several respondents emphasized the training and workshop, which some felt were not robust enough. Some discussed the installation of applications and dependencies for the training, which consumed a significant amount of time compared to the training itself. Further on, others even suggested preparing well for upcoming workshops by sending the requirements to participants in advance to allow them to prepare properly and maximize training time. Subsequently, some respondents requested the inclusion of a master class and pitching sessions. For this reason, some

The usefulness of mentors was recognized, but some participants desired "more in-depth follow-up from mentors or facilitators." This reflects a need for closer and more sustained support, possibly through structured follow-ups or post-event support mechanisms.

One participant explained that "the jury must be reassured that all groups are under the same conditions," as he felt the groups did not present under the same conditions. This emphasizes the need for transparency and a standardized judging procedure to ensure the credibility of the evaluations.

The combination of this mixed method survey paints a consistent picture. On the one hand, the hackathon was successful in generating satisfaction and willingness to recommend: a clear signal that the event achieved its primary objectives.

On the other hand, participants provided constructive criticisms, pointing to areas where the hackathon could evolve to deliver even greater impact.

Key priorities for improvement for the next sessions include:

- **Preparing workshops more effectively and increasing hands-on learning opportunities.**
- **Enhancing mentorship through structured follow-up and equal engagement.**
- **Standardizing judging to guarantee fairness.**

## 5 Conclusion

The **CODE2CARE Hackathon** successfully brought together young innovators, seasoned professionals, and international partners to co-create digital solutions for healthcare challenges. The collaborative environment, technical training, and project-based learning model reflect DSWB's commitment to sustainable, data-driven health systems in Africa.



# 6 Next Steps

**Project Duration: 12 weeks (3 months)**

**Implementation Period: Q3–Q4 2025**

**Project Scope: Operationalizing three winning hackathon solutions for production deployment**

## Executive Summary

Following the successful completion of the healthcare innovation hackathon, Douala General Hospital (DGH) has identified three critical digital health solutions ready for operational deployment. This comprehensive implementation plan outlines the strategic approach to transform prototype solutions into fully operational systems that will enhance patient care delivery, improve operational efficiency, and strengthen healthcare outcomes at DGH.

The three priority systems selected for implementation include a Patient Feedback and Reminder System, an intelligent LLM-powered Patient Education Chatbot, and a sophisticated Blood Bank Dashboard with integrated decision support capabilities. This phased approach ensures systematic development, rigorous testing, and seamless integration while maintaining the highest standards of healthcare data security and operational reliability.

## Implementation Framework

### Phase 1: Technical Assessment and Documentation (Weeks 1–3)

Comprehensive evaluation of prototypes and detailed technical documentation, including system analysis, architecture, UML diagrams, and testing procedures. Stakeholder validation ensures alignment with operational needs. Key Deliverables: Technical Documentation Package and Comprehensive Prototype Evaluation Report

### Phase 2: System Consolidation and Enhancement (Weeks 4–8)

Code refactoring, performance optimization, and feature completion. Improve UI/UX, multilingual support, and security compliance. Key Deliverables: Stable Beta Versions of All Three Systems

### Phase 3: Integration Architecture and Deployment Strategy (Weeks 8–10)

Define the integration approach (unified portal or standalone), develop APIs, prepare deployment configurations, and conduct performance/security testing. Key Deliverables: Integration Architecture Blueprint and Complete Deployment Readiness Package

**Phase 4: Pilot Implementation and User Training (Weeks 11–12)**

Deploy on hospital intranet or limited cloud instance, conduct user acceptance testing, deliver comprehensive training, and finalize documentation. Key Deliverables: Fully Operational System, User & Technical Documentation, and Training Certification.

**Project Timeline (Gantt Overview)**

Phase	W 1	W2	W3	W4	W5	W6	W7	W8	W9	W1 0	W1 1	W1 2
Phase 1	■	■	■									
Phase 2				■	■	■	■	■				
Phase 3								■	■	■		
Phase 4											■	■

**Human Resources**

Role	Responsibility
Project Manager	Oversee timeline, coordinate with hospital & dev team
Software Engineers (2)	Code refactoring, new feature dev, integration
UI/UX Designer	Improve usability & interface
Data Scientist / ML Engineer	Model optimization, LLM fine-tuning
QA Engineer	Testing, validation

Hospital IT Staff	Support deployment & network integration
Trainer	Conduct staff training sessions on how to use the platform and how to address any challenges that may come up.

### Budget Estimate (3 Months)

Item	Cost Estimate (USD)	Cost Estimate (CFA)
Personnel (3 months)	\$	
Hardware/Hosting (servers, cloud)	\$	
Software Licenses & Tools	\$	
Documentation & Printing	\$	
Training & Workshops	\$	
Contingency (10%)	\$	
Total	\$	

### Key Risks & Mitigation

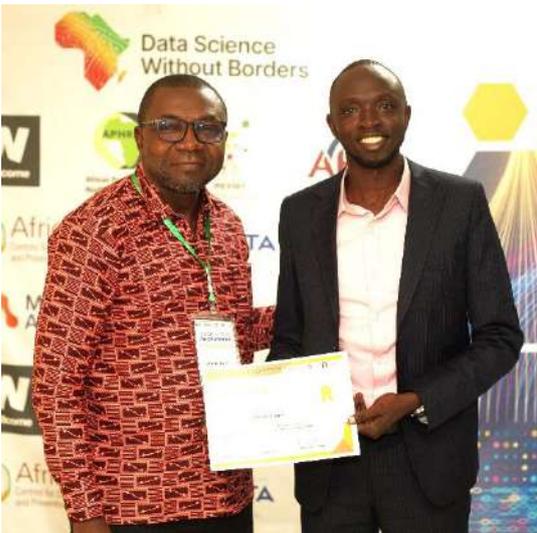
- Integration delays: Engage hospital IT early to address challenges proactively.
- User adoption issues: Involve medical staff in testing from Phase 1
- Data privacy compliance: Adhere to national & hospital data protection policies.
- Model reliability: Validate chatbot output with clinical oversight before deployment.

## Details Project Timeline (Gantt Overview)

Phase/Activity/Track	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
<b>Phase 1: Documentation &amp; Evaluation</b>	■	■	■									
1.1 Gather artifacts & review code	■	■										
Patient Feedback & Reminder System	■											
LLM Patient Education Chatbot	■											
Blood Bank Dashboard & Decision Support	■											
1.2 Prepare documentation & stakeholder validation		■	■									
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
<b>Phase 2: Consolidation &amp; Refinement</b>				■	■	■	■	■				
2.1 Refactor code & implement missing features				■	■	■	■					
Patient Feedback & Reminder System				■	■							
LLM Patient Education Chatbot				■	■	■	■					
Blood Bank Dashboard & Decision Support				■	■	■	■					
2.2 Improve UI/UX, security, and testing					■	■	■	■				
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<b>Phase 3: Integration &amp; Deployment Planning</b>								■	■	■		
3.1 API development & deployment configs								■	■			
3.2 Performance & security testing									■	■		
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<b>Phase 4: Pilot Deployment &amp; Training</b>											■	■
4.1 Deploy pilot & user acceptance testing (UAT)											■	■
4.2 Train staff, collect feedback & fix issues												■

# 7 CODE2CARE GALLERY





## 8 APENDIX : List of Participants:

N°	Names	Organization	Country
<b>Facilitator</b>			
1	Steve Cygu	APHRC	Kenya
2	Samuel Iddi	APHRC	Kenya
3	Pauline Andeso	APHRC	Kenya
4	Miranda Barasa	APHRC	Kenya
5	Christine Ger	APHRC	Kenya
6	Alvin Nahabwe	MAKERERE AI	Uganda
7	Bashemera Brenda Birungi	MAKERERE AI	Uganda
8	Mekuriya Yordanos Sintayehu	AHRI	Ethiopia
9	Dejene Belayneh Endalamaw	AHRI	Ethiopia
10	Onyewuchi Precious Chisom	OSPO NOW	Nigeria
11	Bertrand Hugo Mbatchou	DGH	Cameroon
12	Dr Onana Akoa François Anicet	DGH	Cameroon
13	Lifafa Kinge Kange	DGH	Cameroon
14	Ngu Winston Asanga	DGH	Cameroon
15	Manemik Tadonlekeu Raissa	DGH	Cameroon
16	Mary Chiara Nkombu Tendong	DGH	Cameroon
17	Luc Baudoin Fankoua Tchaptchet	DGH	Cameroon
18	Serena Asu Besong Agbor	DGH	Cameroon
19	Fomazou Tchinda Cyrille Brice	DGH	Cameroon
20	Kwenkeu Tondji Tatiana Melissa	DGH	Cameroon
<b>Finalist</b>			
21	Tandah Djimeli Marcelle		Cameroon

22	Kemo Mbouyom Audrey Xaviera	<b>TEAM NovaCare</b>	Cameroon
23	Kamsu Kamsu Ulrich		Cameroon
24	Kemogne Penka Guy Prince		Cameroon
25	Kengni Tekeu Franck Durand	<b>TEAM Gene Z</b>	Cameroon
26	Mbassi Mengue Loryan Boris		Cameroon
27	Glodi Jaison Ndoma Mbala		Cameroon
28	Nana FAKADIO Loic Ivan		Cameroon
29	Basso Ondobo Raphaelle		Cameroon
30	Ongba Louis David	<b>TEAM NextCareGenerations</b>	Cameroon
31	Ndjengwes Ruben Ulrich		Cameroon
32	Wagna Mbianda Niels Patrick		Cameroon
33	Kenfack Teguefouet Brice		Cameroon
34	Jacob Brayon Fotso		Cameroon
35	Ngoh Precious Fon	<b>Team HealthTech</b>	Cameroon
36	Nkuin Eugene Mbeng		Cameroon
37	Agu Collins		Cameroon
38	Magne Irris		Cameroon
39	Tamo Farel		Cameroon
40	Asongna Frank Tongwa	<b>Team CareChat</b>	Cameroon
41	Ategha Tsili Mvo		Cameroon
42	Tambong Kersten Melengfe		Cameroon
43	Muyang Roshella		Cameroon
44	Frank Junior Aleh Akeh		Cameroon
45	Djiojip Ouankap Claude Rowane	<b>Team HIGH5</b>	Cameroon
46	Kouatchet Tchana Osiris Jourdan		Cameroon
47	Tchiadeu Fred Wilfried		Cameroon
48	Zeugo Keng Achind Junior		Cameroon
49	Nyawa Njinga Franck		Cameroon
50	Mushieh Edison	<b>Team HEXA</b>	Cameroon
51	Anyanwu Godwill		Cameroon
52	Ngwa Solange Binui		Cameroon
53	Dzekashu Charles		Cameroon

54	Maëla Chigheng		Cameroon
55	Navou Momo Lebon	<b>Team SAMIR</b>	Cameroon
56	Ful Marvel Tiobou		Cameroon
57	Ngongue Modi Allan Duval		Cameroon
58	Nerynn Anaëlle Ilyana Dina		Cameroon
59	Akawi Zourmba Toumbarou		<b>Team Enlighthn Innovation</b>
60	Wayou Youassa Wilfried Girland	Cameroon	
61	Foyang Étienne Junior	Cameroon	
62	Kenmogne Ngamga André Yoann	Cameroon	
63	Kwamou Siagat Axelle Steacy	Cameroon	
64	Glory Ashu Manyi	<b>Team CareLink</b>	Cameroon
65	Jefferson Clinton Youmbi		Cameroon
66	Kifeh Alen Mbinde		Cameroon
67	Nana Dilan Kenye		Cameroon
68	Ntarike Larissa Boya		Cameroon
<b>Stakeholders</b>			
69	Ebimbe Jean Blaise	Douala Gyneco-Obstetric and Pediatric Hospital	Cameroon
70	Bema Gerard	Douala General Hospital	Cameroon
71	Dassi Cabrel Junior	Douala General Hospital	Cameroon
72	Ajebe Ntoko Alexander	Douala General Hospital	Cameroon
73	Ghangha Jamin Ghangha	Lifafa Research Foundation	Cameroon
74	Vamtowe Hazel Tracy	Lifafa Research Foundation	Cameroon
75	Kum Mineva Ziagha	Lifafa Research Foundation	Cameroon
76	Banezoue Kwatchoua Lionel Wullis	Fondation Coeur Et Vie	Cameroon
<b>Participants</b>			
77	Nupa Kawo Christelle	NA	Cameroon
78	Pokam Ngouffo Tanekou	NA	Cameroon
79	Teyim Pride Mbuh	NA	Cameroon
80	Kamdem Meguia Pascale	NA	Cameroon
81	Foute Alex	NA	Cameroon
82	Nguep Manyo Gerome	NA	Cameroon
83	Nahou Fokou Jean Baptiste	NA	Cameroon
84	Azobou Kiadjeu Cedric	NA	Cameroon



Data Science  
Without Borders



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