



BOOTCAMP COHORT 3

REPORT

Prepared by: The H4K-IT Team

Date: August 2025

Table of Contents

Executive Summary.....	3
Introduction.....	4
Bootcamp Structure and Roadmap.....	5
Participant Demographics and Selection.....	7
Curriculum Overview.....	14
Mentorship and Judging Panel.....	16
Learning Experience: Labs and CTF Competition.....	17
Assessment Process and Report Writing.....	18
Demo Day and Finalist Presentations.....	19
Results and Winner Recognition.....	20
Women Empowerment Initiative.....	21
Feedback, Impact, and Value Delivered.....	22
Conclusion and Next Steps.....	23

Executive Summary

H4K-IT Bootcamp Cohort 3 brought together over 900 aspiring cybersecurity practitioners from across Africa and beyond, offering a rigorous, skills-focused experience designed to transform absolute beginners into industry-ready talent. Spanning from May to August 2025, the program guided mentees through a step-by-step progression, combining online learning, practical labs, and a real-world Capture The Flag (CTF) competition. The journey culminated in a competitive selection process that produced the top 10 finalists, whose presentations were judged live on Demo Day. The program concluded with recognition of the top three overall performers and the two highest-ranking women, reinforcing our ongoing commitment to women's empowerment in cybersecurity.

Introduction

Cybersecurity is rapidly becoming the backbone of Africa's digital transformation, and yet the talent pipeline remains both a bottleneck and an opportunity. The H4K-IT Bootcamp is not just another technical training - it is a carefully curated talent acceleration program designed to bridge the skills gap between raw potential and industry readiness. Now in its third cohort, H4K-IT has become a beacon for aspiring professionals across the continent and beyond, combining foundational education, mentorship, and hands-on experience in a way that traditional university curricula rarely achieve.

This report serves as a comprehensive record of the Cohort 3 journey - from mass registration, selection, and orientation, through the learning phases, labs, and CTF challenges, to the final showcase and recognition of exceptional performers. It is intended not just as a summary, but as a resource for stakeholders, future cohorts, sponsors, and the wider cybersecurity community, highlighting the unique value that H4K-IT delivers to both mentees and the broader ecosystem.

The H4K-IT Bootcamp is designed with a clear mission to democratize access, break down barriers, and accelerate professional growth. Cohort 3 builds upon previous successes, elevating the standard of content, mentorship, and real-world readiness. This report captures the bootcamp's structure, the intensive process each mentee undergoes, key statistics, and the tangible value created for both the mentees and the wider community.

Bootcamp Structure and Roadmap

Cohort 3 officially launched on May 10, 2025, following an orientation that detailed every step mentee would encounter. The journey was mapped out in advance, providing clarity and confidence for all participants.

Roadmap Overview

- **Weekly Online Sessions:** Delivered every Monday, covering core cybersecurity topics.
- **Live Interactive Sessions:** Every Saturday, with Q&A and mentorship.
- **Hands-On Labs:** Released immediately after each session to reinforce learning.
- **CTF Competition:** A multi-day event to test applied skills in realistic environments.
- **Assessment:** Compiling points for labs, attendance and ctf to get top 10 finalist
- **Report Writing & Presentations:** For finalists to practice communication of technical findings.
- **Demo Day:** Live presentations and feedback from industry judges.
- **Winner Announcement & Certificate Issuance:** Final recognition and program close.



Date	Topic
10th May	Introduction to GRC
17th May	Introduction to Data Protection
24th May	Introduction to Networking
31st May	Introduction to Cybersecurity
7th June	Introduction to SOC
14th June	Introduction to Cloud security
21st June	Intro. to vulnerability research
28th June	Intro. to Web App Pentest
5th July	Intro. to Digital Forensics
12th July	Tech Report writing & presentation





Date	Topic
21st - 25th July	Report Writing for the Top Winners
26 th - 1 st August	Judging of written reports
2 nd August	Presentations
3 rd August	Official Announcements of Overall Winners

Note: Judging for reports and Presentations are done by different Judges to ensure fairness across the board



The comprehensive schedule ensured that mentees experienced a structured progression from foundational concepts to advanced practical exercises.

Participant Demographics and Selection

A program is only as strong as the community it builds, and Cohort 3 stands out for its diversity, reach, and inclusivity. In 2025, H4K-IT saw a major shift in its applicant pool - a record 914 individuals representing every corner of Africa and select international markets, from undergraduates and young professionals to freelancers and industry hopefuls. This surge is a testament to H4K-IT's growing brand, the reputation of its alumni, and the continent-wide hunger for meaningful, industry-aligned cybersecurity education.

The selection process is intentionally rigorous. Unlike programs that favor academic credentials alone, H4K-IT places weight on growth mindset, demonstrated commitment, and readiness to thrive in a challenging, collaborative environment. For Cohort 3, special attention was given to gender balance, country representation, and career stage, ensuring the bootcamp remains accessible and relevant to those most in need of opportunity.

Participating Countries

For the first time, Kenyan applicants dominated the cohort, making up over 84% of all mentees a sharp increase that reflects both regional marketing efforts and strong word-of-mouth from prior participants. Nigeria and Tanzania followed, with Tanzania seeing a notable drop compared to last year, underscoring shifting trends and emerging growth centers for cyber talent across Africa.

Mentees joined from the following countries:



Where majority of representations came from the following countries

- Kenya (84.6%)
- Nigeria (6.7%)
- Tanzania (5.8%)

Beyond these three nations, mentees came from countries as varied as South Africa, Ghana, Rwanda, Cameroon, Uganda, the UAE, Austria, Malawi, and the United States, confirming H4K-IT's evolution from a local initiative to a pan-African, and increasingly global, force.

Key Statistics

This year's cohort remained majority male (70.5%), but efforts to increase women's participation saw nearly 30% of seats filled by female candidates. The largest age group was 18–25, accounting for nearly four out of five mentees - clear evidence that the next generation is eager for a head start in cybersecurity. First-time boot campers made up almost three-quarters of the cohort, affirming H4K-IT's role as an entry point for fresh talent.

The educational background was similarly strong, with over 80% holding or pursuing university degrees, but significant numbers coming from diploma and certificate tracks. While 57.8% of mentees classified themselves as beginners, a solid 33% considered themselves intermediate, and a small but important group (2.6%) already had professional experience, creating a diverse peer-learning dynamic.

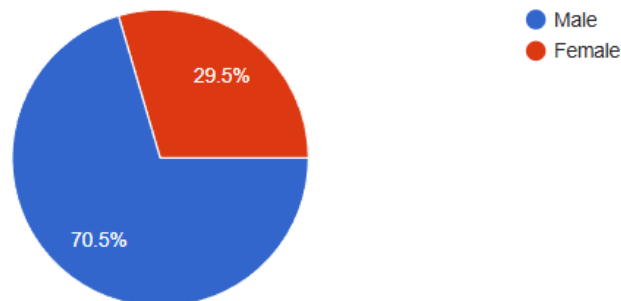
In this cohort we saw a significant drop in Tanzanian participation compared to last year, while engagement from Kenya and Nigeria surged, confirming the regional impact of H4K-IT's outreach.

Key Demographic Statistics:

- Gender: 70.5% male, 29.5% female

Gender

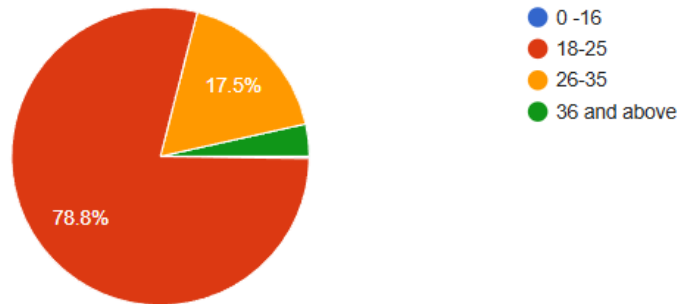
914 responses



- Age: we had a diverse age set of people where 78.8% aged 18-25, 17.5% aged 26-35, 3.7% outside this range

Age group

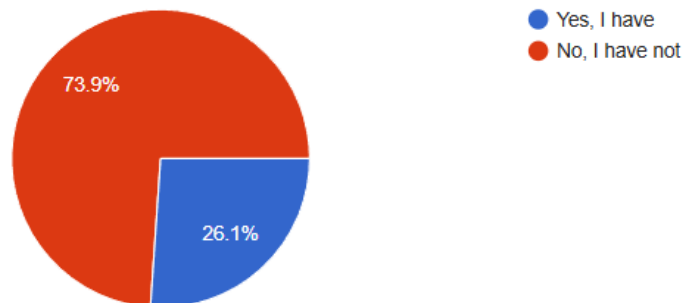
914 responses



- Previous Cybersecurity Bootcamp Attendance: 26.1% attended before, 73.9% first-time attendees

Have you ever attended any cybersecurity bootcamp

897 responses

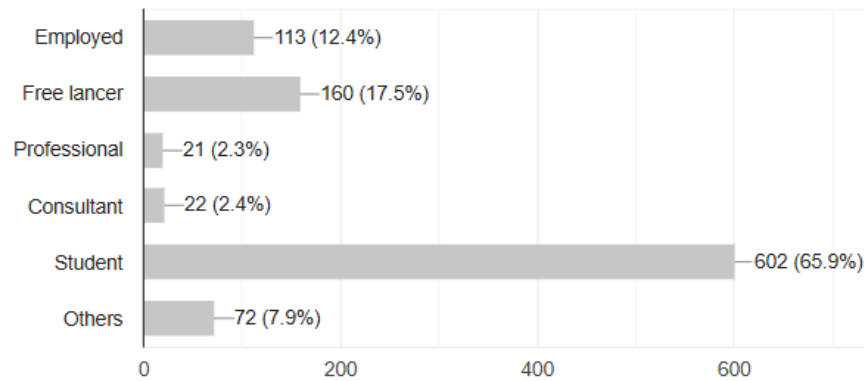


- Occupation: 65.9% students, with freelancers, consultants, and employed professionals making up the rest

Occupation



914 responses



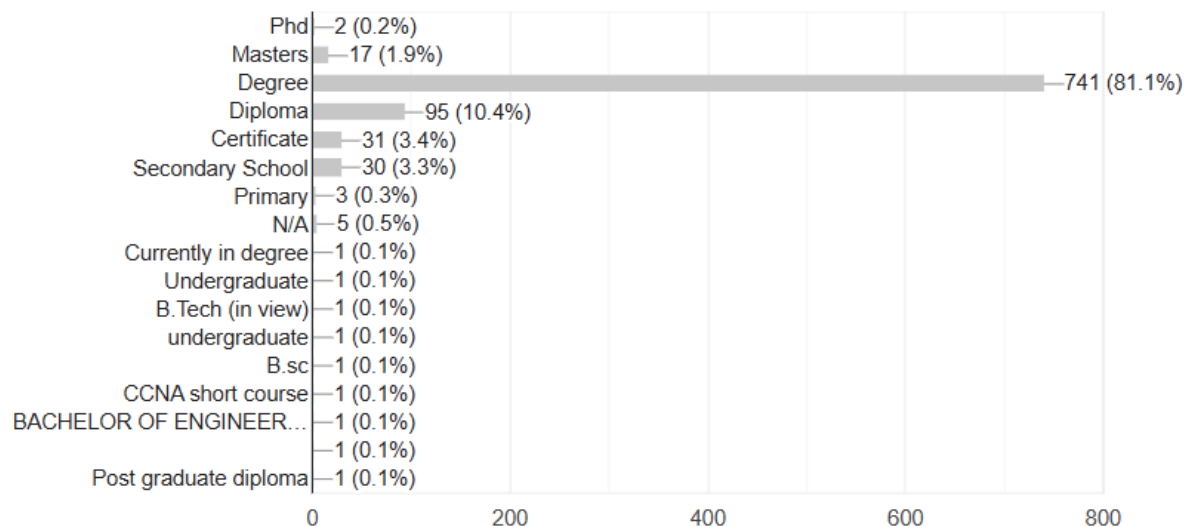
- Education Level: 81.1% have or are pursuing a degree, 10.4% diploma, others distributed across certificates and postgraduate studies

Current level of education?

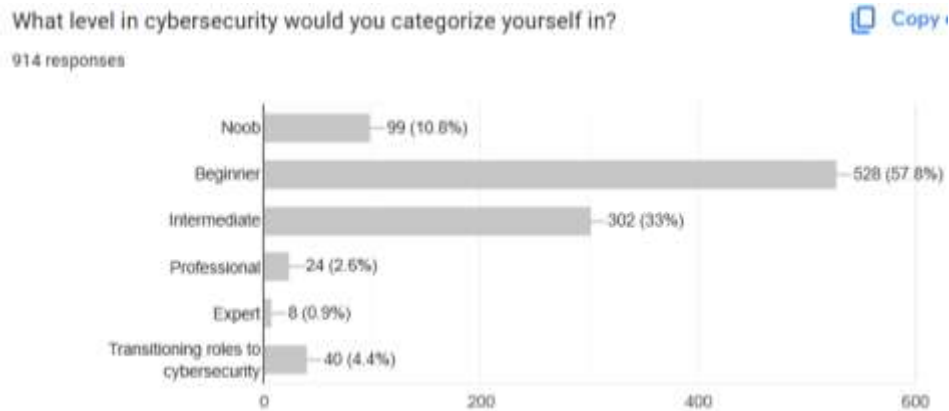


Copy chart

914 responses



- Cybersecurity Experience:
 - 67.9% of participants reported no certifications yet, highlighting the bootcamp's critical role as an entry point for many.
 - 25.1% held "other" certifications outside mainstream industry credentials.
 - 3.3% had the Certified Ethical Hacker (CEH).
 - 3% had CompTIA Security+.
 - 0.3% had CHFI (Computer Hacking Forensic Investigator).
 - 0.3% had eJPT (eLearnSecurity Junior Penetration Tester).



This spread underscores H4K-IT's mission to serve both absolute beginners and those with early professional momentum, building a layered talent pipeline for the continent.

Certifications:

The certification snapshot reveals a critical insight: the majority (67.9%) of participants had yet to earn a recognized cybersecurity credential, underscoring the bootcamp's value as a foundational launchpad. Of those with certifications

- 3.3% had achieved the globally respected Certified Ethical Hacker (CEH)
- 3% CompTIA Security+
- 0.3% CHFI,
- 0.3% eJPT
- A further 25.1% held other qualifications

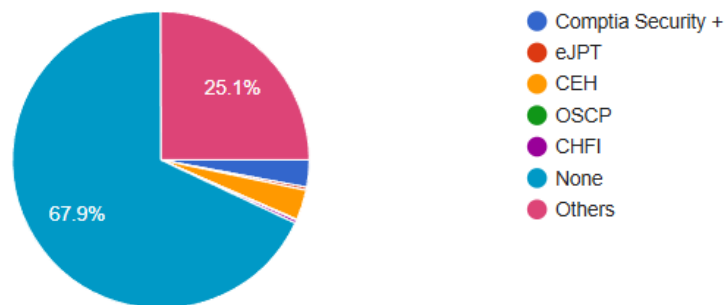
pointing to a spectrum of readiness and ambition.

- 67.9% had no certification yet
- 25.1% held “other” certifications

small percentages with industry-recognized credentials

What professional certification do you hold

914 responses



This range of backgrounds creates a unique learning environment - one that is welcoming to absolute beginners while remaining challenging for those with prior exposure. The end result is a more robust, multi-layered talent pipeline for the cybersecurity industry.

Curriculum Overview

The core strength of the H4K-IT Bootcamp lies in its meticulously structured curriculum, designed to blend foundational theory with hands-on, scenario-based learning. Each module is carefully sequenced to build competence and confidence, turning abstract concepts into practical skills that mentees can immediately apply.

The 12-week journey began with critical areas often neglected in conventional courses - Governance, Risk, and Compliance (GRC), and Data Protection - before moving through the essentials of networking, security operations, cloud security, vulnerability research, and digital forensics.

Advanced topics such as web application penetration testing and technical report writing were reserved for later weeks, ensuring mentees had the prerequisite knowledge and context to engage deeply with more complex material.

Every week featured a combination of

- pre-recorded lectures for flexible study
- live Q&A sessions for real-time interaction and
- immediate practical assignments to reinforce concepts

This structure was supported by a team of industry mentors, providing both technical guidance and career advice. The curriculum was designed not just to prepare mentees for exams, but to give them the professional edge needed in a real-world security environment - analytical thinking, problem solving, and effective communication.

The bootcamp curriculum was intentionally crafted to provide both foundational knowledge and hands-on exposure to real-world cybersecurity practices. Weekly topics and sessions were delivered by industry experts, with every week building on the last.

Topics Covered

- Introduction to GRC (Governance, Risk, and Compliance)
- Data Protection and Privacy
- Networking Concepts
- Cybersecurity Fundamentals
- Security Operations Center (SOC) Operations
- Cloud Security
- Vulnerability Research
- Web Application Penetration Testing
- Digital Forensics
- Technical Report Writing and Presentation Skills



Date	Topic
10th May	Introduction to GRC
17th May	Introduction to Data Protection
24th May	Introduction to Networking
31st May	Introduction to Cybersecurity
7th June	Introduction to SOC
14th June	Introduction to Cloud security
21st June	Intro. to vulnerability research
28th June	Intro. to Web App Pentest
5th July	Intro. to Digital Forensics
12th July	Tech Report writing & presentation



Delivery Format

- **Pre-recorded Lectures:** Released weekly for flexible learning
- **Live Q&A Sessions:** To reinforce learning and address individual challenges
- **Immediate Lab Assignments:** Ensure practical application of theory

Mentorship and Judging Panel

Mentorship is at the heart of the H4K-IT approach. This cohort featured a panel of highly skilled mentors representing a mix of academic, industry, and consulting backgrounds. Their role was to guide, challenge, and support each mentee.

Mentors

The Mentors were seasoned professionals who have extensive experience in this field of cybersecurity giving the mentee's real-world exposure of what the industry is all about and what is needed in the employment market



Judges

The judging panel consisted of cybersecurity practitioners, thought leaders, and technical experts responsible for evaluating reports and live presentations. The judges were split into two groups for fairness and effectiveness, some were judging the reports and some were judging the presentations.



Learning Experience: Labs and CTF Competition

1. Labs

Every topic was reinforced through practical labs, giving mentees the environment to experiment, make mistakes, and master core skills. Assignments were designed to be challenging but accessible, supporting a “learn-by-doing” philosophy.



2. Capture The Flag (CTF) Competition

A signature component of the bootcamp was the CTF competition, where mentees tested their practical skills under pressure in a competitive but supportive environment. Challenges spanned all curriculum topics, and participation rates were high across the board.



Assessment Process and Report Writing

After the CTF, top-performing participants advanced to the report writing and presentation phase. Each finalist was required to document their findings, methodologies, and lessons learned. Reports were evaluated for technical depth, clarity, and ability to communicate with non-technical stakeholders.



This step ensures mentees are not just technically strong, but also prepared to articulate value and risk to business decision-makers.

Demo Day and Finalist Presentations

Demo Day, held on August 2, 2025, was the culmination of months of learning and growth.



The top 10 finalists presented their work live, each given a fixed time slot to showcase their findings to a panel of judges and a live audience.

Browser Trail - Suspicious Redirection

- **Category:** Digital Forensics
- **Vulnerability Simulated:** Unsecured Redirection to a Malicious Domain
- **Target:** Intern's Browsing Activity on Developer Workstation

Key Points

- SSH'd into target machine and accessed browser_history.txt
- Reviewed visit logs using cat and timeline analysis
- Found suspicious HTTP request to: `http://malicious-update.win/launch?ver=2.0`
- Flag embedded in the URL itself: `h4kit(browser_phish_flag)`

Timeline Observations:

- Multiple visits to fake login site: `banksecure-login.com`
- Followed by sudden redirect to malicious-update.win
- Behavior mimicked real-world phishing through browser redirects

Participants (27)

Participant	Status
H4K-IT Community (Host, Mac)	Connected
Melanie M	Connected
Adewale Olorundoye	Connected
Alvin O	Connected
Amna Sultan	Connected
Interlimes	Connected
Diana Mulhert	Connected
Dr Nathi Baba Obinede	Connected
Iskra	Connected
Gertrude's iPhone	Auto to connect
Gertrude	Connected
Ulla Nyabake	Connected
HARVEY SIMON	Connected
James Malloy	Connected
Joshua Nyekabane	Connected

Results and Winner Recognition

Following Demo Day, judges' scores were compiled to determine the overall top performers. Winners were recognized not just for technical excellence, but also for teamwork, communication, and perseverance.

Top 3 Overall Winners:



Top 2 Women Performers:



Winners receive premium certificates and public recognition, further amplifying their professional visibility. This recognition also connects them to recruiters and industry partners for future opportunities.

Women Empowerment Initiative

As part of our ongoing effort to bridge the gender gap in cybersecurity, Cohort 3 continued to emphasize women's participation and leadership. Targeted outreach, mentorship, and dedicated awards for top-performing women ensured that gender equity remains a foundational value.

- 29.5% of all mentees were women
- The top two women were recognized alongside overall winners

This initiative directly supports a new generation of women cybersecurity leaders in Africa

Feedback, Impact, and Value Delivered

Mentee Experience

Feedback from participants has been overwhelmingly positive, citing the program's unique blend of theory, practical labs, and mentorship. Many mentees expressed that the hands-on experience, exposure to industry professionals, and focus on real-world scenarios significantly accelerated their learning and career readiness.

- Over 70% of mentees had no prior experience in cybersecurity bootcamps
- 81% are at or near degree-level education
- The practical, career-focused approach differentiates H4K-IT from other training options

Value Delivered

For Mentees:

- Industry-ready skills and mindsets
- Professional certification pathways
- Real-world portfolio and experience
- Networking with industry mentors and recruiters
- Lifelong membership in a growing cybersecurity community

For the Ecosystem:

- New talent pipeline for employers
- Stronger cybersecurity culture in the region
- Women's empowerment in a critical sector

Conclusion and Next Steps

Cohort 3 has proven that with the right structure, mentorship, and vision, it is possible to rapidly develop top-tier cybersecurity talent at scale. The success of our mentees is a direct reflection of H4K-IT's commitment to quality, access, and impact. As we close this chapter with certificate issuance and winner announcements, our focus shifts to continuous improvement and expansion - growing the bootcamp's reach, deepening its impact, and ensuring every new cohort raises the bar.