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Code for Care

Three prototypes in
two days that solve real
healthcare challenges

Deloitte New Zealand's recent
Code for Care hackathon explored
how Artificial Intelligence (AI) could help
improve healthcare services for Kiwis.

A hackathon is a focused innovation event where teams design and build early prototypes within a limited timeframe and focused environment. The goal is to bring big ideas to life quickly, and safely. Teams created three working prototypes in just two days, each addressing real pain points for clinicians and providing a strong foundation for future scaling.

Health New Zealand | Te Whatu Ora (Health NZ) is the country's publicly funded healthcare system, building a future health system to support all Kiwis to live better and longer lives.

Modern digital tools are vital to improving systems that support frontline carers. As such, AI is top of mind for many healthcare professionals, who are increasingly interested in how this technology can speed up software development and improve patient care.
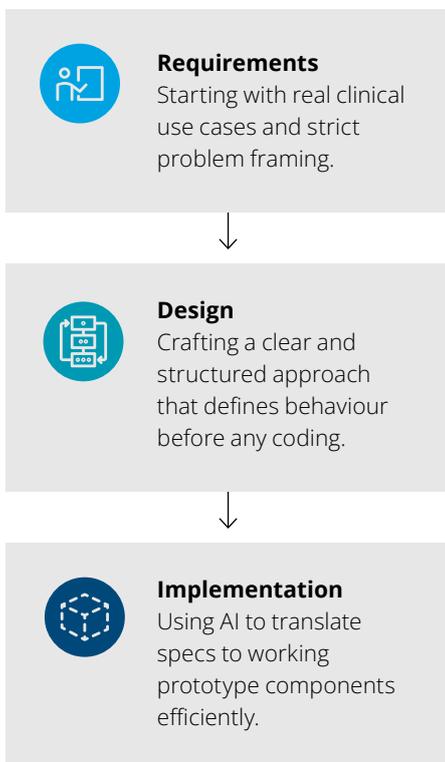
Digital solutions in the health sector must be safe, reliable and fit for purpose because people's wellbeing is at stake. These high standards often lead to long and resource-intensive development cycles for digital teams, slowing down engineers, clinicians and, ultimately, the delivery of benefits to the public.

Our approach

To encourage innovation and safely accelerate the prototyping of ideas, Deloitte New Zealand and Amazon Web Services (AWS) hosted the *Code for Care* hackathon for Health NZ in January.
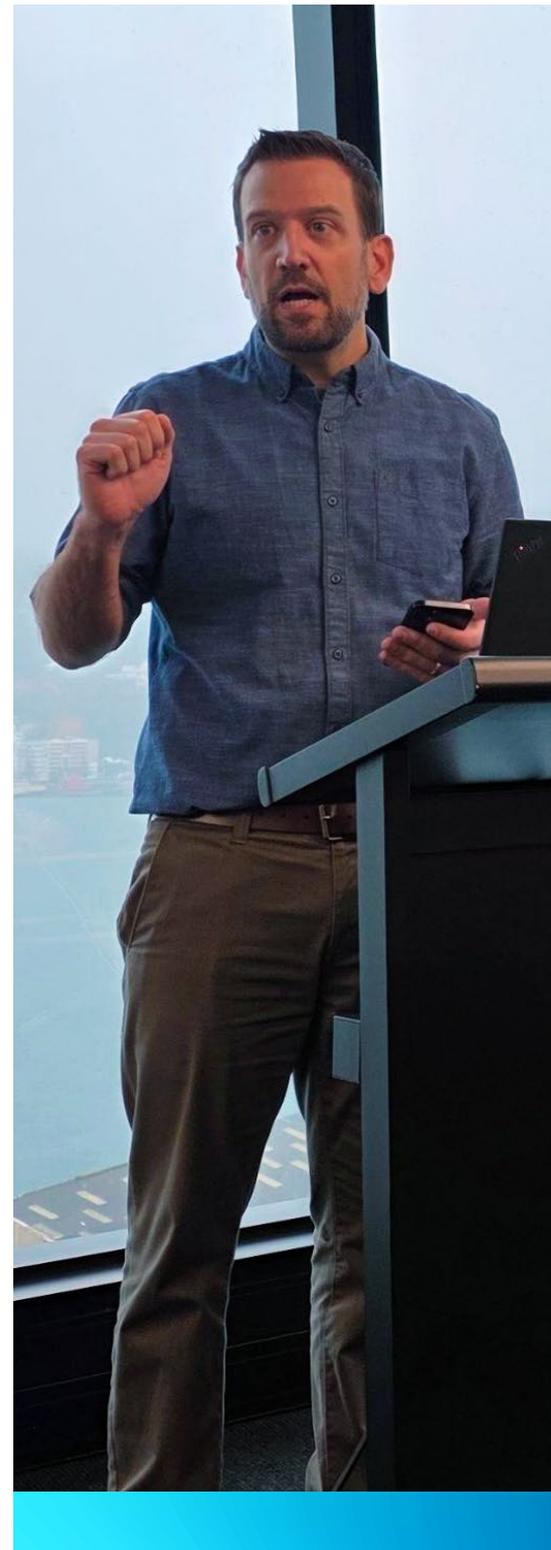
The two-day event in our Wellington office brought together software engineers, developers, testers, and clinical specialists from across the three organisations to share ideas and solve real-world problems in a structured setting.

Clear three-phase workflow to move to software prototyping:

Requirements
Starting with real clinical use cases and strict problem framing.

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Design
Crafting a clear and structured approach that defines behaviour before any coding.

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Implementation
Using AI to translate specs to working prototype components efficiently.

To help attendees bring their ideas to life efficiently, AWS introduced proven specification-driven workflows and AI-assisted development practices. Kiro is AWS's agentic coding environment, using autonomous AI systems to handle complex coding tasks, and is built on Amazon Bedrock, a platform for building secure AI applications. Using Kiro, attendees could easily translate requirements in natural language into design, generate tasks, generate code, run tests automatically, and use steering files (files to inform Kiro standards that apply to a workspace) to maintain consistency.

To protect security and privacy, all data was mocked or sandboxed, meaning software testing took place in isolated, controlled environments.

The impact for Health NZ

By following a structured three-phase workflow and using AWS Kiro, teams created three working prototypes over two days. Each solution addressed real pain points for clinicians and provided a solid foundation for future scaling.
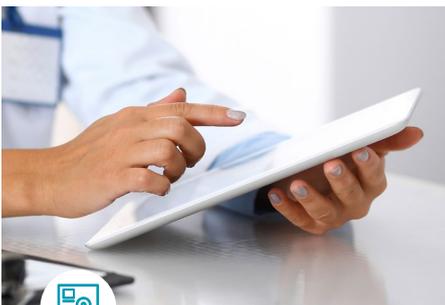
New medication checker
Using Kiro-generated code to bring mocked medication and lab information into one place, helping clinicians quickly spot any risks before prescribing.

ED notes encoder
Using AI to scan emergency department notes and match them to standard clinical codes, reducing the need for manual coding.

Waiting-room triage
A basic digital form built with Kiro that collects key patient details before triage, helping clinicians prioritise people more easily.

It is fantastic to see solutions I've been dreaming of for 20 years come to fruition in just a couple of days.

"

Bryan Simpson
Clinical Informatics Director
Health New Zealand

The *Code for Care* hackathon showed how using the latest agentic AI tools like AWS Kiro in a structured and safe setting can help engineers move from concept to prototype at pace. Work that would normally take weeks was completed in just two days, demonstrating the positive impact this technology can have on development cycles for digital teams and, ultimately, on frontline healthcare.

Create working prototypes within your organisation

Deloitte works with the world's leading technology providers, including AWS, bringing together our engineers and delivery specialists with the latest AI and digital solutions, like Kiro.

Contact us today to learn about the benefits of a similar hackathon for your business, industry, and customers.

Get in touch

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