

Project Title

Agile Design Thinking Approach in Project Management for Healthcare

Project Lead and Members

Project members: Ronald Cheong, A/Prof Sean Lam

Organisation(s) Involved

SingHealth HSRC

Healthcare Family Group Involved in this Project

Healthcare Adminsitration

Applicable Specialty or Discipline

Healthcare Administrators

Project Period

Ongoing

Aims

To develop an agile design thinking approach in project management that adapts to the dynamic nature of public healthcare and delivers impactful products for patients and healthcare workers.

Background

The need for agility in healthcare project management was underscored by the COVID-19 pandemic, which required rapid adaptation to changing needs. This project

leverages agile methodologies and design thinking to ensure dynamic and effective responses to healthcare challenges.

Methods

The project used principles from the Agile Manifesto and the Scrum framework, incorporating design thinking concepts based on user personas. Regular sprint meetings, open communication, and collaboration platforms like Miro, Dropbox, and GitHub facilitated continuous feedback and rapid development.

Results

HSRC successfully delivered pilot products that met user requirements quickly. Projects like DiSCERN and SST gained traction, received funding for scaling, and minimized unnecessary rework. A decision support resource planning system for emergency response in nursing, DiSCERN, garnered support from senior nurse management and expanded its team for scaling.

Lessons Learnt

The agile design thinking approach enables faster delivery of impactful products in healthcare, reduces costs, and fosters stakeholder support. Regular collaboration, open communication, and iterative development are key to success.

Conclusion

The approach has proven successful in delivering fast, impactful products for healthcare, as evidenced by the traction and support for DiSCERN and SST. It is recommended for broader application in healthcare project management.

Project Category

Care & Process Redesign

Agile Methodology, Design Thinking

Organisational Leadership

Knowledge Management, Knowledge Sharing, Community of Practice

Keywords

Agile Methodology, Design Thinking, Healthcare Project Management, Scrum Framework, Dynamic Healthcare Solutions, Iterative Development, Collaboration Platforms, Stakeholder Engagement, Rapid Prototyping, Product Backlogs, Decision Support Systems, Healthcare Innovation, User Personas, Continuous Feedback

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Agile Design Thinking Approach in Project Management for Healthcare

Singapore Healthcare Management 2023

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Aim

To develop an agile design thinking approach in project management that adapts to the dynamic nature of public healthcare and deliver impactful products for our patients and healthcare workers.

Motivation

- Myriad of patient ailments present a high degree of dynamism for healthcare workers to find the best solution.
- Need to adapt to frequent changes[1] to cater to our patients' needs.
- Recent COVID-19 pandemic cements the need for agility in solving healthcare problems.

Methodology

1. Design Thinking

Design concepts were conceived based on user personas[2] of healthcare professionals. Functionality and design were refined continuously based on iterative feedback till conclusion.

2. Agile Development

Regular stand-up meetings were conducted for the development team to share progress and impediments. Product and Sprint backlogs were used to track work progress. Sprint goals were well-defined to deliver increments towards the product.

3. Collaboration

Regular Sprint meetings were conducted, either physical or virtual, to engage project stakeholders to understand the concepts and gather feedback on the deliverables.

4. Open Communication

Chatgroups were created for quick and open non-confidential communication in the project and development teams.

5. Seamless Knowledge Exchange

Use of collaborative platforms, such as Miro, Dropbox and GitHub, to facilitate faster non-confidential knowledge exchange.



Figure 1: Principles of the Agile Manifesto

Source: <https://www.scrumalliance.org/agile-organizations/manifesto>

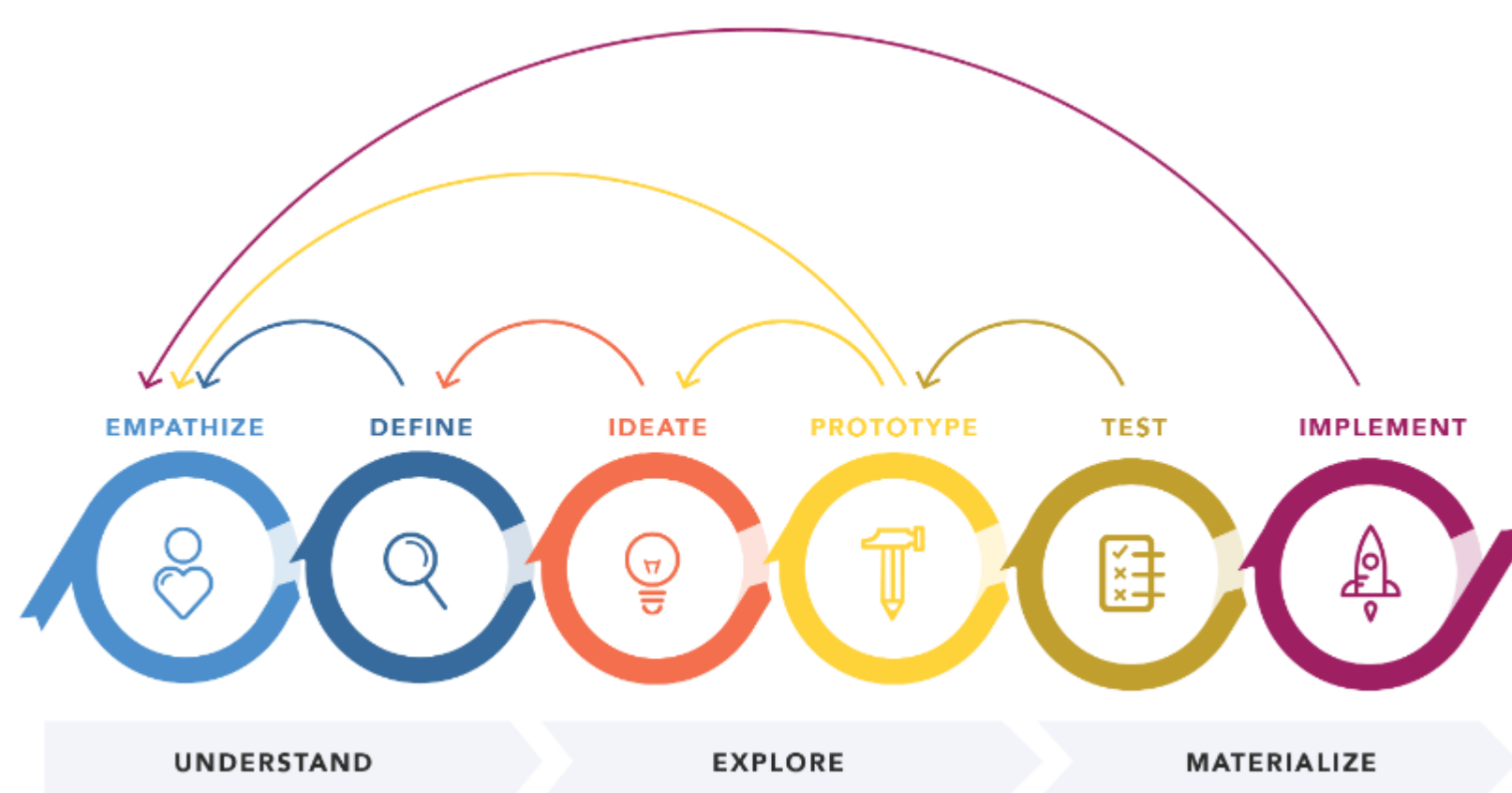


Figure 2: Design Thinking Process

Source: <https://www.nngroup.com/articles/design-thinking/>

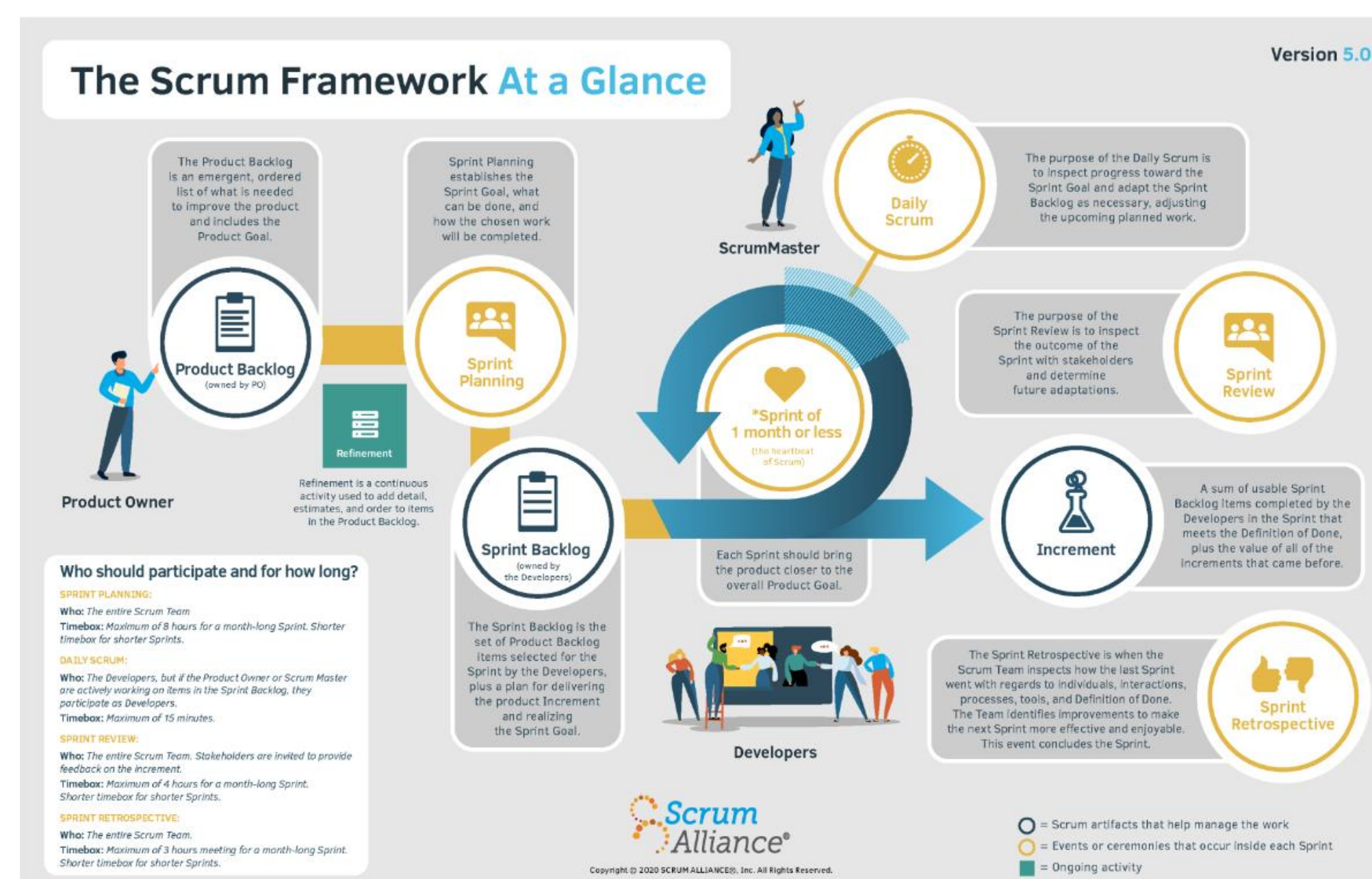


Figure 3: Scrum Framework

Source: <https://www.scrumalliance.org/about-scrum>

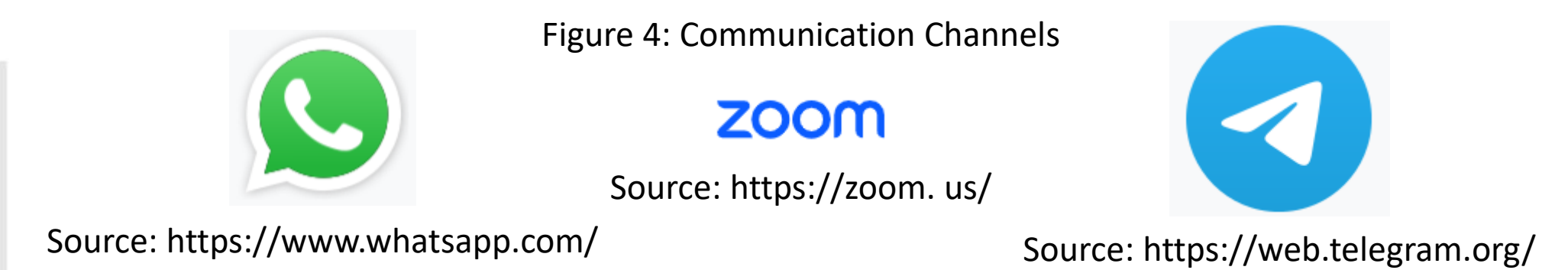


Figure 4: Communication Channels

zoom

Source: <https://zoom.us/>

Source: <https://www.whatsapp.com/>

Source: <https://web.telegram.org/>



Source: <https://miro.com/>

Figure 5: Collaborative Platforms

- Design wireframes
- Product and Sprint backlogs for tracking tasks
- Sprint boards for tracking progress and impediments



Source: <https://github.com/>

- Version control
- Collaboration between developers



Source: <https://www.dropbox.com/>

- Share project documents and collaterals
- Business continuity for development team transitions

Results

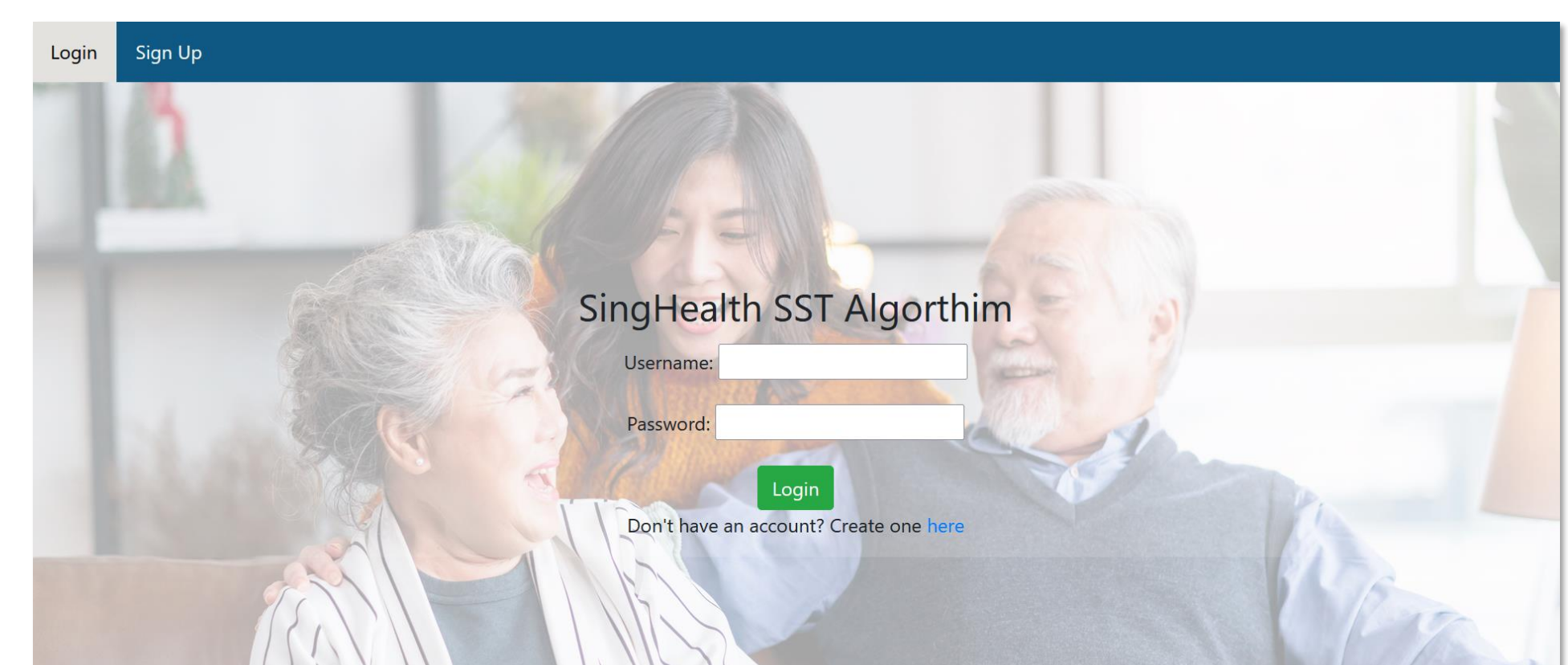
- HSRC **delivered** pilot products that **met user requirements faster**.
- Projects gained **traction** and obtained **funding for scaling faster**, and yet **minimizing the costs** of unnecessary rework.

DiSCERN

- Decision support resource planning system for emergency response in nursing
- Garnered support from senior nurse management
- SKH now a part of project team for scaling

SST

- Simple segmentation tool for social means and services identification for frail patients
- Received a multi-million-dollar grant to deliver the clinical workflow
- Expanded development team for scaling



Conclusion

- With an **agile design thinking** approach to managing healthcare projects with dynamic requirements, HSRC has **delivered impactful products fast**.
- This is proven by the **success of DiSCERN and SST**, which **gained traction and support from stakeholders**.
- Moving forward, this approach can be **applied to any healthcare project**.

References

- Agile Manifesto, Scrum Alliance, <https://resources.scrumalliance.org/Article/key-values-principles-agile-manifesto>
- Design Thinking, Interaction Design Foundation, <https://www.interaction-design.org/literature/topics/design-thinking>

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