# Customize your Patient Portal Project for Orion Health

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## ABSTRACT

The rise of Covid-19 and its tremendous impact has forced governments around the world to accelerate the process of digitalizing the health sector. According to Ian McCrae, founder and CEO of Orion Health, every human consists of 2.2 Terra Byte of data (McCrae, 2016). Clinicians are just having access to the tip of that iceberg of information, and as a result, clinicians might not make the best possible decision for the patient. The Patient Portal of Orion Health is an interface between those two parties, encouraging them to share data to improve wellness of patients. Millions of people around the world are using the patient portal daily and insights revealed that patients requiring customization to feel more comfortable using a web application. As a result, Orion Health required an upgrade of their patient portal to enable the user customization. This paper describes the Work Integrated Learning Project at Ara Institute of Canterbury in collaboration with Orion Health. Orion Health wished to integrate image upload features for patient records to enhance the visual appearance of those records throughout the application. This was implemented by enhancing the existing code base using technologies such as ReactJs, Redux, Material UI as well as Java.

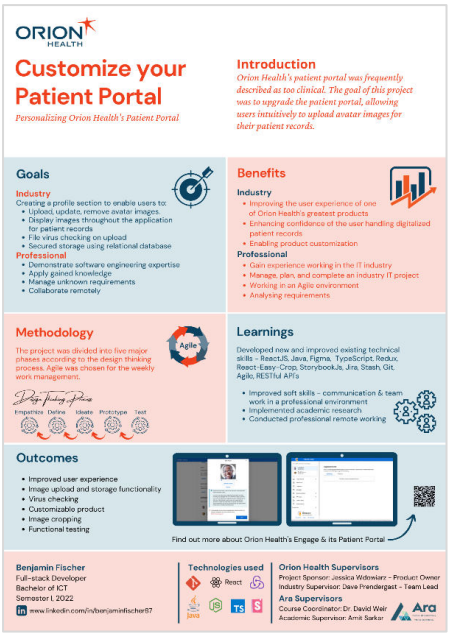
**Keywords**: user experience, software development, full-stack, customization, agile

## 1. INTRODUCTION

As a global player in the health information technology industry, Orion Health is delivering services, software, and support to health care organizations for more than 25 years with a team of more than 500 employees in 20 offices across the globe. The software products created by this New Zealand based company are deployed in more than 15 countries and used by hundreds of thousands of health practitioners to manage more than 100 million patient records.

Orion Health has 10 released and constantly updated products to offer. One of them is called Engage. It is a patient engagement solution enabling patients to view, contribute and participate to their health records. The aim of Engage is to provide a convenient way for patients, representatives, and clinicians to access real-time patient data at any time.

This paper outlines the process and methodology used to fulfil this project




*Poster for Customizing Patient Portal Project*

## 2. PROJECT DETAILS

### The Problem

Orion Health is continuously evaluating, testing, and improving their product through usability tests as well as user feedback. They have continuous feedback that the product is cold and impersonal – i.e., too clinical.

The UX team has consistently ideated that uploading a photo for a user to navigate patient records would drastically improve usability as well as it would make the product more personal.

### Industry Goal

Enabling the user to upload a profile image via a feature in the profile section of the patient portal application. The user should be able to upload an image which will then be represent the user account in the upper right corner of the screen. Furthermore, patient switcher, so patient accounts which can be used by patient representatives to access their data - e.g., a mother of three has four accounts, one for her and three for her children-, could upload images of her kids as well to increase the user experience of the patient switcher feature.

### Student Goal

This project offers a variety of fields which are important to experience for graduate/junior developers. The chance to organize, plan and iterate through a project with the freedom of choosing the most suitable project methodology is a milestone in the authors young IT career. The patient portal and the environment are using most popular technologies such as React, Redux, or Java and the job opportunities in those fields are currently endless.

### Project Requirements

- Create a feature to upload an image in the patient portal application.
- Image to be displayed in the patient application to improve UX.
- Enabling user to remove or change any uploaded image as a profile image.
- Storing uploaded image reliable and secured.

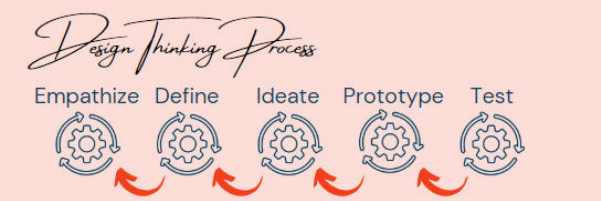
- Enabling user to upload images of their representatives.
- Offering same functionality for representative images as the profile image has.

# 3. PROCESS

This section outlines the process implemented to ensure positive industry and academic results.

## 3.1 Project Management

Efficient project management is the backbone of successful projects. Thus, planning must be done thoroughly and professional using industry standards. The project was divided into 5 phases according to the Design thinking process.




*Methodology section of the Poster*

Furthermore, the weekly tasks have been planned in forms of sprints according to the Agile project methodology.

## 3.2. Risk Management

The risk management framework of Microsoft was used to efficiently manage any risks that could endanger the project. The approach of this risk framework is to identify, estimate and manage the risk. Additionally, the exposure, probability and impact are getting estimated and calculated using a simple equation.

Risk Exposure = Risk Probability * Risk Impact

The created data enables the project participants to manage risks efficiently in a sufficient manner of time (Mind Tools Content Team, n.d.) .

## 3.3. Quality Assurance

To assure the highest quality of the project's requirements, the Virginia Tech Quality Assurance Framework was applied. Virginia Tech's IT department has developed a quality assurance template which can be applied to every project. It encompasses meeting and following guidelines to continuously reflect and correct project deficiencies if necessary (Virginia Tech, n.d.).

## 3.4 Agile

The author used Agile to manage the workload in a fortnightly interval. The most popular project management methodology in the IT industry is Agile. Developed in the early 2000s for the software industry, Agile has answered the needs for the IT industry for a lightweight, loose, and easy to adopt framework to deliver IT products. The key feature of Agile is the ability to react on requirement changes throughout the lifecycle of the project, without losing control or oversight of the enterprise itself (SmartSheet, n.d.).

## 3.5 Outcome

Throughout each phase of the design thinking process, the author carried out a close communication to the stakeholders and as the nature of the project was allowing to divine, the requirements changed, and the author had to reiterate through specific phases again. However, this is exactly what Agile and the Design thinking process are made for. Currently, the project if finalising the testing phase, the stakeholders are highly satisfied with the progress that have been made and the integration to the live product is expected for July/ August this year.

# 4. CONCLUSION

This project highlighted the importance of effective project management and the ability to see changes as chances and opportunities, and not as threats. However, this comes to the price which is well known in the IT industry: Deadlines of projects might be redefined to allow excellence to grow.

# 5. REFERENCES

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