

DETAILED REQUIREMENTS

Detailed Requirement Specification

For

CORA Kiosk Application

Version 1.0 approved

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Section 1.0 – Introduction

1.1 Purpose

The Cora Kiosk Implementation project has been conceived to revolutionize the patient check-in process within the Family Physician's Office. The kiosk has a focus on optimizing patient identification, verification, and clinical information management. Cora is envisioned as a kiosk application tailored explicitly for the Family Physician's Office environment, offering a suite of features aimed at enhancing patient interactions and streamlining data management processes. Cora aims to alleviate the challenges inherent in manual check-in procedures, which often result in extended wait times, administrative burdens, customizable access rules, and robust verification functionalities. Cora promises to deliver a secure, efficient, and user-friendly check-in experience for patients.

The incentive for the Cora project originates from a critical need within healthcare facilities to modernize and streamline administrative processes. The current manual check-in procedures not only lead to inefficiency but also pose risks to data accuracy and patient satisfaction. Recognizing these challenges, the Cora project aims to introduce a transformative solution that not only addresses these pain points but also enhances the overall patient experience. Cora's introduction of swift check-ins through barcode scanning represents a significant departure from traditional manual processes. By leveraging technology, patients can seamlessly authenticate their identities and update personal and clinical information, thereby expediting the check-in process and reducing wait times. Furthermore, Cora's capability to facilitate the completion of essential questionnaires represent a pivotal advancement in patient data collection and management. By empowering patients to provide comprehensive insights into their health history, symptoms, and concerns, Cora enables healthcare providers to gain a deeper understanding of each patient's needs and priorities. Moreover, Cora's ability to centralize and digitalize patient data not only improves data accuracy but also enhances collaboration and communication among healthcare team members, further optimizing clinical workflows and patient outcomes.

In addition to enhancing the patient's experience, Cora is strategically positioned to optimize clinic workflows and operational efficiency. By automating routine check-in procedures and reducing administrative burdens, Cora enables administrative staff to focus on delivering

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quality care rather than being tied up with manual paperwork. Cora's incorporation of multi-language support features represents a significant stride towards fostering inclusivity and accessibility within the clinic environment. By offering content and instructions in languages beyond English, Cora eliminates language barriers that may otherwise hinder effective communication and comprehension between patients and healthcare providers.

Cora's commitment to accessibility extends to ensuring that individuals with disabilities can fully utilize its features and functionalities. Through thoughtful design considerations and implementation of accessibility features, Cora strives to create an inclusive environment where all patients, regardless of their abilities, can engage with the kiosk seamlessly.

Overall, the Cora Kiosk Implementation project will bring in a new era of efficiency, accuracy, and patient-centricity within the Family Physician's Office. By embracing modern technological solutions and leveraging Cora's capabilities, the clinic aims to enhance the overall quality of healthcare delivery, improve patient satisfaction, and stay at the forefront of innovation in healthcare administration. Through Cora, the clinic reaffirms its commitment to delivering exceptional healthcare experiences while embracing the transformative power of technology to address the evolving needs of patients and healthcare providers alike. This commitment to accessibility underscores Cora's dedication to providing equitable access to healthcare services for all individuals, irrespective of their abilities, thereby fostering a truly inclusive patient-centered healthcare environment.

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Section 2.0 – Personas

2.1 Persona

TECH-SAVVY TAYLOR



Background

Taylor is a 25-year-old tech enthusiast who values efficiency and convenience. As a frequent user of digital platforms, Taylor prefers streamlined and tech-driven healthcare experiences.

Goal: Seamless and quick digital check-in.

Goal

Seamless and quick digital check-in

Concerns

Manual and time-consuming administrative processes.

ORGANIZED LANA



Background

Lana is a detail-oriented administrative professional with a knack for organization. She thrives on maintaining order and providing excellent service to patients.

Goal

Effortless management of patient check-ins.

Concerns

Managing patient check-in efficiently.

PATIENT-FOCUSED DR.NIA



Background

Dr. Nia is a compassionate physician dedicated to patient care. She values a patient-focused approach and utilizes all the information available to her to provide the best care.

Goal

Efficient access to patient information

Concerns

Access to a complete health history and management of infectious diseases

GRACEFUL MARY



Background

Mary is a 70-year-old retiree who values user-friendly technology which has an intuitive interface, she is not tech-savvy.

Goal

Kiosk with user-friendly interface.

Concerns

Inability to utilize digital interfaces due to less technological knowledge.

RESILIENT RYAN



Background

Ryan, is in his 40s and manages a chronic condition moving with a wheelchair. He values a healthcare experience that is understanding of his specific mobility needs.

Goal

Efficient check-ins with consideration for his mobility, a kiosk that has a screen that can be mobilized by height and position would be suitable for someone with his needs.

Concerns

The lack of physical accessibility of the Kiosk makes him unable to use the self-check-in process independently.

MANAGER NINA



Background

Nina is a compassionate Manager who values the privacy and security of patients' information and consistency with PHIPA regulations with all required safeguards and locks for computers at the kiosk.

Goal

Prevent privacy breaching accidents by stolen computers.

Concerns

Stolen data due to the lack of physical safeguards.

FARID, FARSI SPEAKER



Background

Farid, in his 30s, is a Farsi speaker who faces language barriers. He appreciates a healthcare experience that provides support and information in his native language.

Goal

Access to healthcare information in Farsi.

Concerns

Inability to communicate with administrative staff to express his actual needs.

VISIONARY VICTOR



Background

Victor is a visually impaired individual who navigates the world using adaptive technologies. He seeks a healthcare experience that leverages technology for accessibility.

Goal

Digitally accessible and navigable check-in processes.

Concerns

Lack of braille keyboard or screen reader compatibility with headphone.

PRIVATE PAM



Background

Pam values her privacy. She values a healthcare experience that understands the importance of privacy.

Goal

A check-in environment with a private screen-filter eases her concerns.

Concerns

Safety and privacy of her medical and personal information.

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Section 3.0 – Use Cases

3.1 Use Cases

The Use Case Specification provides the highest level of granularity and detail for each process to be automated in the future state. The summary section defines the focus of this use case specification, actors, conditions, and trace to the L3 process. Tables 1 to 7 illustrate the use cases.

3.2 Basic Flow of UC001-UC007

The set of steps performed by the actor and the solution during the execution of the use case. The basic flow represents the shortest or simplest successful path that accomplishes the goal of the actor. Table 8 shows the basic flow of use case number 1 to 7.

3.3 Alternative Flows of UC001-007

Alternative flows describe any other paths that may be followed to allow the actor to successfully achieve the goal of the use case. Exception flows describe the desired response by the solution when the goal is unachievable and the use case cannot be successfully completed. Tables 9 to 23 show the alternate flows of use case number 1 to 7.

3.4 Business Rule(s)

Business Rules define the criteria for behavior, decision-making, and logic to be realized in the solution. Table 24 illustrates Business Rules (BRs).

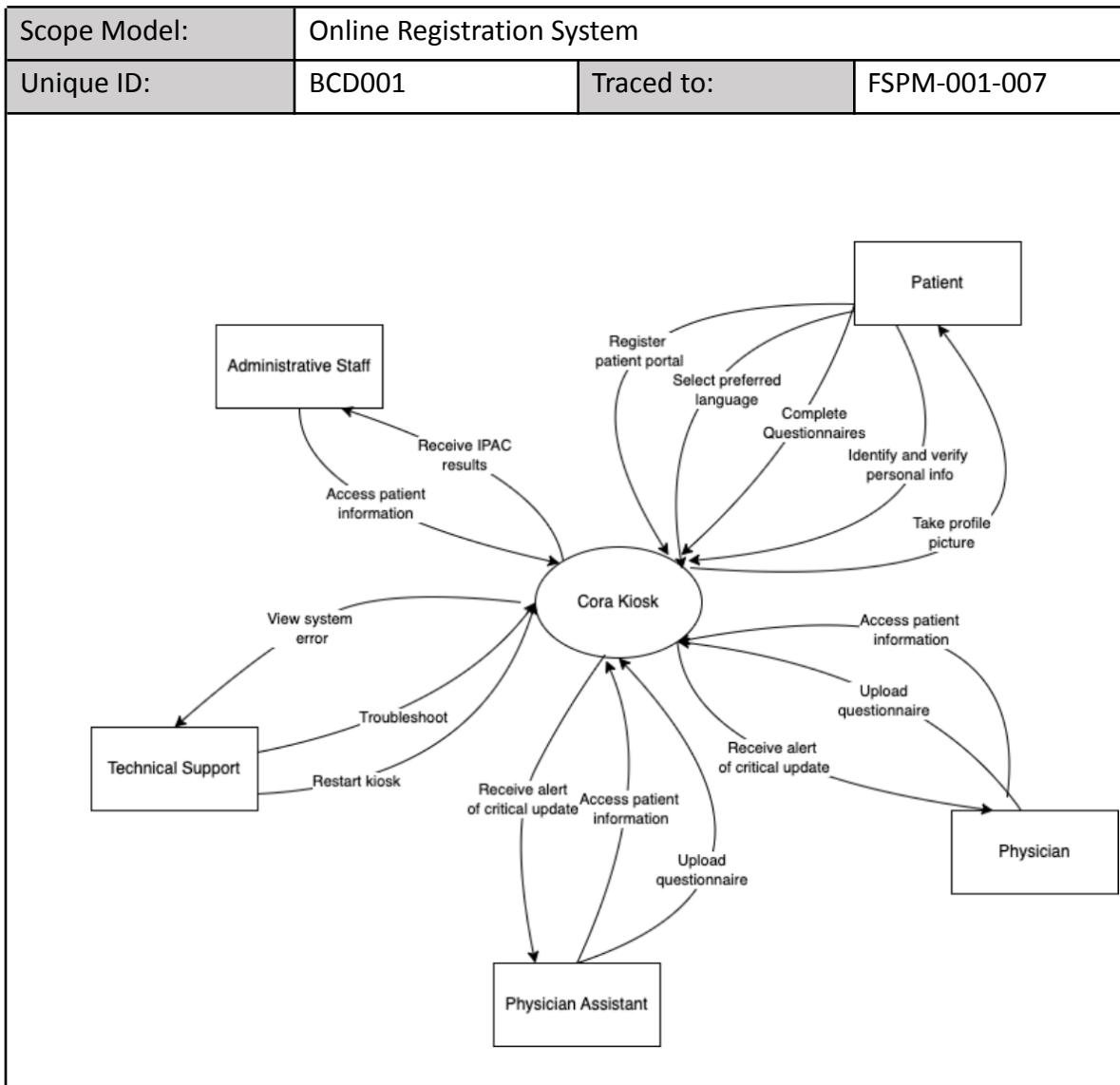
3.5 Business Data Catalogue

The Business Data Catalogue refers to business knowledge used in the process of achieving the Use Case goal. Table 25 shows the Business Data (BD) catalogue with Data Elements (DEs) visible.

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Section 4.0 – Context Diagram

4.1 Context



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5.0 Requirements

5.1 Non-functional Requirements

Section/ Requirement ID	Requirement
NFR 1.0	Performance
NFR 1.1	The system should respond back within 2 seconds.
NFR 1.2	The system should verify user barcode within 5 seconds.
NFR 1.3	The system should allow an unlimited number of barcode scanning attempts.
NFR 2.0	Compatibility
NFR 2.2	The system should be compatible with the following systems: Ontario eHealth Electronic Medical Record System, Verify Ontario and Government of Ontario (to verify OHIP card validity)
NFR 4.0	Reliability
NFR 4.1	The system must be available at all clinic working hours.
NFR 4.2	The system must be fault tolerant and expected to work continuously with no interruption.
NFR 4.3	The system defect rate should be less than 1 failure per 1000 hours of system use.
NFR 4.4	The system should have a crash-free rate of 99% for users.
NFR 4.5	The system should have a crash-free rate of 99.5% for other systems.
NFR 4.6	The system must show an error message in case of system failures.
NFR 5.0	Maintainability

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NFR 5.1	The system should have an operational support team during clinic working hours.
NFR 5.2	The system must be reviewed every month.
NFR 5.3	The system's reported bugs should be corrected within two weeks.
NFR 6.0	Scalability
NFR 6.1	Only one user is allowed to use the Kiosk at any given time.
	Add more Kiosk units?
NFR 7.0	Security
NFR 7.1	The system must automatically log out the user after a period of inactivity of 30 seconds.
	The system must show a logout countdown on screen before automatically logging out.
NFR 7.2	The system must ensure the integrity of the user's account information.
NFR 7.3	The system should ensure that user data is protected even under cyber attacks.
	The system must provide audit logs.
NFR 8.0	Usability
NFR 8.1	The system should provide a simple and intuitive user interface.
NFR 8.2	The system's user interface should be consistent across all screens.
	The system should allow users to adjust font size.
	The system should allow users to use audio functions as needed.
NFR 9.0	Localization

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NFR 9.1	The system should be available in English, French and Persian, with the possibility of adding other languages as needed.
NFR 9.2	The system should allow user inputs in English, French and Persian.

5.2 Functional Requirements

Section/ Requirement ID	Requirement
FR 1.0	Check in
FR 1.1	The system must allow users to sign in using a unique barcode
FR 1.2	The system must be able to verify the scanned barcode in the patient database
FR 2.0	System Navigation Menu
FR 2.1	The system must provide a dashboard with all the features contained in it.
FR 2.2	The system must allow the user to navigate to all the features it contains from the dashboard screen.
FR 2.3	The system must provide a patient registration panel with all the features contained in it.
FR 2.4	The system must allow the user to choose the preferred language
FR 2.5	The system must allow the user to take profile photo
FR 2.6	The system must allow the user to verify/ edit personal information
	The system must allow the user to fill the questionnaire form.

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FR 6.0 Access to Patient Portal	
	The system must allow the user to create a patient portal account.
FR 6.1	The system must allow the user to access his/her Patient portal on the View Patient Portal screen.
FR 6.2	The system must be able to retrieve the user's Ontario health card number from its database.
FR 6.5	The system must be able to display the user's Patient Portal on the View screen.

Section 6.0 Low-Fidelity Prototype



Kiosk Prototype.pdf

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Appendix

Table 1 shows the details of use case number one (UC-001), including use case name, process map trace, actors and conditions.

Use Case Name	Select Preferred Language
Use Case Unique Identifier	UC-001
Process Map Trace	FSPM-001
Use Case Description	Select a preferred language as a patient on the CORA kiosk application
Actors	
Primary:	Patient
Secondary:	CORA Kiosk Application
Conditions	
Pre-Conditions:	Post-Conditions:
Patient has physical access to CORA kiosk application	The kiosk application displays content in the selected language.

Table 2 shows the details of use case number two (UC-002), including use case name, process map trace, actors and conditions.

Use Case Name	Use OHIP Card to Check-in
Use Case Unique Identifier	UC-002
L3 Process Map Trace	FSPM-002
Use Case Description	Utilize OHIP card barcode or number to check-in using CORA kiosk application
Actors	
Primary:	Patient
Secondary:	CORA Kiosk Application
Conditions	
Pre-Conditions:	Post-Conditions:

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Patient selected their preferred language	Patient successfully checks in
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Table 3 shows the details of use case number three (UC-003), including use case name, process map trace, actors and conditions.

Use Case Name	Verify or Update Personal Information
Use Case Unique Identifier	UC-003
Process Map Trace	FSPM-003
Use Case Description	Verify or update personal information as a patient on CORA kiosk application
Actors	
Primary:	Patient
Secondary:	CORA Kiosk Application
Conditions	
Pre-Conditions:	Post-Conditions:
Patient checked in using OHIP card	Patient verified their personal information

Table 4 shows the details of use case number four (UC-004), including use case name, process map trace, actors and conditions.

Use Case Name	Verify or Update Health Information
Use Case Unique Identifier	UC-004
Process Map Trace	FSPM-004
Use Case Description	Verify or alter health information as a patient using CORA kiosk application
Actors	
Primary:	Patient
Secondary:	CORA Kiosk Application
Conditions	
Pre-Conditions:	Post-Conditions:
Patient verified their personal information	Patient verified their health information

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Table 5 shows the details of use case number five (UC-005), including use case name, process map trace, actors and conditions.

Use Case Name	Complete Questionnaire	
Use Case Unique Identifier	UC-005	
Process Map Trace	FSPM-004	
Use Case Description	Complete questionnaire(s), when requested by physician, as a patient using CORA kiosk application	
Actors		
Primary:	Patient	
Secondary:	CORA Kiosk Application	
Conditions		
Pre-Conditions:	Post-Conditions:	
Patient verifies their health information.	Patient completes questionnaire	

Table 6 shows the details of use case number six (UC-006), including use case name, process map trace, actors and conditions.

Use Case Name	Capture Photo	
Use Case Unique Identifier	UC-006	
Process Map Trace	FSPM-005	
Use Case Description	Capture a photo for electronic health record as a patient using CORA kiosk application	
Actors		
Primary:	Patient	
Secondary:	CORA Kiosk Application	
Conditions		
Pre-Conditions:	Post-Conditions:	
Patient verifies their health information.	Patient captures their photo	

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Table 7 shows the details of use case number seven (UC-007), including use case name, process map trace, actors and conditions.

Use Case Name	Create or Activate Patient Portal	
Use Case Unique Identifier	UC-007	
Process Map Trace	FSPM-006	
Use Case Description	Create or activate patient portal account as a patient using CORA kiosk application	
Actors		
Primary:	Patient	
Secondary:	CORA Kiosk Application	
Conditions		
Pre-Conditions:	Post-Conditions:	
Patient chooses to take photo Patient does not choose to take photo	Patient activated an existing patient portal account Or Patient created a new patient portal account	

Table 8 shows basic flow of use cases 001 to 007.

	Step	Alternative Flow	UI/Notification
1	Use case starts when patient clicks on the button that represents their preferred language	AF01 AF02	Audio Description or 'AD' button on the left-hand corner and letter magnification button ('Tt') on the right-hand corner. Three main buttons representing English, French, and Persian languages.
2	System prompts patient to scan their OHIP card barcode		'Please scan your OHIP Card'

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	DE001 - OHIP Card Barcode		
3	Patient scans their OHIP card barcode via system's physical barcode scanner		
4	System displays waiting notice for processing DE001 - OHIP Card Barcode DE002 - Processing Time DE003 - OHIP Card Number		Waiting notice: 'Please wait while your card barcode is being processed'
5	System displays 'Your card barcode is successfully processed'	AF03 AF04	Your card barcode is successfully processed
6	System prompts patient to verify or update personal information DE004 - Patient's name DE005 - Patient's date of birth DE006 - Patient's address DE007 - Patient's phone number DE008 - Patient's email address DE009 - Emergency Contact's name DE010 - Emergency Contact's phone number DE011 - Emergency Contact's email address		Please Verify/Update your information: Full name, Date of Birth, Address, Phone number, Email address, Emergency contact name, email address, and phone number Two buttons representing 'Verify' and 'Update'

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7	Patient verifies their personal information	AF05	
8	System prompts patients to verify or update health information DE012 - Allergy history DE013 - Medication history DE014 - Health history		Please Verify/Update your health information: Allergy, Current medications, Health History Two buttons representing 'Verify' and 'Update'
9	Patient verifies their health information	AF06	
10	System prompts patient to complete a COVID screening questionnaire DE015 - Questionnaire response	AF07	'Please complete a COVID screening questionnaire' 'Click all boxes that apply: check boxes containing questionnaire-related information'
11	Patient completes the COVID screening questionnaire		'Would you like to sign up for the patient portal? (Yes, No, Already signed up)'
12	Systems prompts patient to choose to capture their photo DE016 - EHR photograph		'Would you like to capture your photo for your electronic health record?'

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			<p>Privacy notice: 'Your picture will be used for identification purposes during your clinic visit For more information on how we handle your personal data, please visit clinic's website'</p> <p>Two buttons representing Yes and No</p>
13	Patient chooses to capture photo	AF08	Two buttons representing Yes and No
14	System prompts patient to take photo		'Accept Photo' button for submitting the captured photo, 'Re-take' button for retaking the photo, and a display of patient's face in the camera and the captured photo
15	Patient captures and submits their photo	AF09	'Accept Photo' button for submitting the captured photo, 'Re-take' button for retaking the photo, and a display of the captured photo and patient's face aligned to the camera
16	System prompts patient to sign up for patient portal		<p>'Would you like to sign-up for the patient portal?'</p> <p>Three buttons showing 'Yes', 'No', and 'Already signed up'</p>

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17	Patient chooses to sign up for a patient portal account	AF10 AF11 AF12 AF13	
18	System displays text boxes required for sign-up DE017 - Existing account email address DE018- New account email address DE019 - Password DE020 - Security answer one DE021 - Security answer two		4 boxes of information (top to bottom): 'enter e-mail address' 'enter password', security questions one and two in a dropdown style, and security answers one and two next to their associated answers. A 'Submit' button to submit the information
19	Patient provides the required information and submits		
20	System prompts patient to enter account activation code DE022 - Account activation code		"Check your email. Please enter account activation code."
21	Patient enters and submits the account activation code	AF14	
22	System processes the code and prompts patient to wait	AF15	'Please wait to be seen by the doctor or Nurse Practitioner'
23	Use case ends		

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Table 9 shows Alternate Flow (AF) number 1.

AF Name & ID		AF01 - Patient chooses to change fonts	
Step		Alternative Flow	UI/Notification
1		This flow starts at step 1 of the basic flow when patient clicks on letter magnification symbol	Audio Description or 'AD' button on the left-hand corner and letter magnification button ('Tt') on the right-hand corner
2		System displays content with larger letters	
3		This flow returns to step 1 of the basic flow	
4		Use case ends	

Table 10 shows Alternate Flow (AF) number 2.

AF Name & ID		AF02 - Patient chooses to use audio description function	
Step	Alternative Flow	UI/Notification	
1	This flow starts at step 1 of the basic flow when patient clicks on audio description symbol	Audio Description or 'AD' button on the left-hand corner and letter magnification button ('Tt') on the right-hand corner	
2	System enables audio description function		

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3	This flow returns to step 1 of basic flow	
4	Use case ends	

Table 11 shows Alternate Flow (AF) number 3.

AF Name & ID		AF03 - OHIP card barcode is not successfully processed
Step		UI/Notification
1	This flow starts at step 4 of the basic flow when the OHIP card barcode is not successfully processed	Alert: 'Your OHIP card barcode is not successfully processed' A button showing 'Enter your OHIP card number'
2	Patient clicks on 'Enter your OHIP card number' button	'Enter your OHIP card number' button
3	System prompts patient to enter their OHIP card number	Request: 'Please enter your OHIP card number' A fillable box with example OHIP card number Arrow button to submit
4	Patient enters and submits their OHIP card	A fillable box with example OHIP card number Arrow button to submit

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5	Systems displays waiting notice	Waiting notice: 'Please wait while your card number is being processed'
6	Systems informs patient of successful OHIP card number processing	'Your OHIP card number is successfully processed'
7	This flow returns to the step 5 of the basic flow	
8	Use case ends	

Table 12 shows Alternate Flow (AF) number 4.

AF Name & ID		AF04 - OHIP card number is not successfully processed
Step		UI/Notification
1	This flow starts at step 4 of the basic flow when the OHIP card barcode is not successfully processed	Alert: 'Your OHIP card barcode is not successfully processed' A button showing 'Enter your OHIP card number'
2	Patient clicks on 'Enter your OHIP card number' button	
3	System prompts patient to enter their OHIP card number	Request: 'Please enter your OHIP card number' A fillable box with example OHIP card number Arrow button to submit

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4	Patient enters and submits their OHIP card	A fillable box with example OHIP card number Arrow button to submit
5	Systems displays waiting notice	Waiting notice: 'Please wait while your card number is being processed'
6	Systems informs patient of unsuccessful OHIP card number processing and prompts patient to speak to a member of staff	'Your OHIP card number was not successfully processed' 'Please speak to a member of staff at the front desk'
7	Use case ends	

Table 13 shows Alternate Flow (AF) number 5.

AF Name & ID		AF05 - Patient chooses to update personal information
Step		UI/Notification
1	This flow starts at step 3 of the basic flow when the patient chooses to update their personal information	Please Verify/Update your information: Full name, Date of Birth, Address, Phone number, Email address, Emergency contact name, email address, and phone number Two buttons representing 'Verify' and 'Update'
2	System prompts patient to alter personal information	Please Verify/Update your information: Full name, Date of Birth, Address, Phone number, Email address, Emergency contact

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		name, email address, and phone number One buttons representing 'Verify'
3	Patient alters personal information and verifies personal information	
	This flow returns to step 7 of the basic flow	
4	Use case ends	

Table 14 shows Alternate Flow (AF) number 6.

AF Name & ID		AF06 - Patient chooses to update health information information
Step		UI/Notification
1	This flow starts at step 8 of the basic flow when the patient chooses to update their health information	Please Verify/Update your health information: Allergy, Current medications, Health History Two buttons representing 'Verify' and 'Update'

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2	System prompts patient to alter health information	Please Verify/Update your health information: Allergy, Current medications, Health History One buttons representing 'Verify'
3	Patient alters personal information and verifies health information	
4	This flow returns to step 9 of the basic flow	
5	Use case ends	

Table 15 shows Alternate Flow (AF) number 7.

AF Name & ID		AF07 - No questionnaire request
Step		UI/Notification
1	This flow starts at step 2 of the basic flow when there is no questionnaire request from the clinic	<p>'Would you like to capture your photo for your electronic health record?'</p> <p>Privacy notice: 'Your picture will be used for identification purposes during your clinic visit'</p> <p>For more information on how we handle your personal data, please visit clinic's website'</p> <p>Two buttons representing Yes and No</p>

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2	<p>This flow returns to step 11 of the basic flow</p>	<p>'Would you like to capture your photo for your electronic health record?'</p> <p>Privacy notice: 'Your picture will be used for identification purposes during your clinic visit</p> <p>For more information on how we handle your personal data, please visit clinic's website'</p> <p>Two buttons representing Yes and No</p>
3	<p>Use case ends</p>	

Table 16 shows Alternate Flow (AF) number 8.

AF Name & ID		AF08 - Patient does not choose to capture photo
Step	Alternative Flow	UI/Notification
1	This flow starts at step 12 of the basic flow when patient chooses to not take a picture	"Your account is Inactive. Would you like to activate your account?"
2	This flow returns to step 15 of the basic flow	
3	Use case ends	

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Table 17 shows Alternate Flow (AF) number 9.

AF Name & ID		AF09 - Patient chooses to retake photo
Step	Alternative Flow	UI/Notification
1	This flow starts at step 14 of the basic flow when patient chooses to retake photo	'Accept Photo' button for submitting the captured photo, 'Re-take' button for retaking the photo, and a display of the captured photo and patient's face aligned to the camera
2	This flow returns to step 14 of the basic flow	'Accept Photo' button for submitting the captured photo, 'Re-take' button for retaking the photo, and a display of the captured photo and patient's face aligned to the camera
3	Use case ends	

Table 18 shows Alternate Flow (AF) number 10.

AF Name & ID		AF10 - Patient chooses to not register for patient portal account
Step	Alternative Flow	UI/Notification
1	This flow starts at step 16 of the basic flow when patient chooses to not register for a patient portal account	

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2	System prompts patient to wait	'Please wait to be seen by the doctor or Nurse Practitioner'
3	Use case ends.	

Table 19 shows Alternate Flow (AF) number 11.

AF Name & ID		AF11 - Patient has an existing account
Step	Alternative Flow	UI/Notification
1	This flow starts at step 16 of the basic flow when patient chooses 'Already signed up' button	
2	System prompts patient to wait	'Please wait to be seen by the doctor or Nurse Practitioner'
3	Use case ends	

Table 20 shows Alternate Flow (AF) number 12.

AF Name & ID		AF12 - Patient has an inactive account (Chooses to activate)
Step	Alternative Flow	UI/Notification
1	This flow starts at step 16 of the basic flow when system recognises patient has an inactive account	

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2	System prompts patient to activate their account	Notice: 'Your account is inactive, would you like to activate it now?'
3	Patient chooses to activate their account	
4	System prompts patient to enter registered email address	Notice: 'Please enter the email address associated with your portal account'
5	Patient enters registered email account	
6	This flow returns to step 19 of the basic flow	
7	Use case ends	

Table 21 shows Alternate Flow (AF) number 13.

AF Name & ID		AF13 - Patient has an inactive account (Chooses to not activate)
Step		UI/Notification
1	This flow starts at step 16 of the basic flow when system recognises patient has an inactive account	
2	System prompts patient to activate their account	Notice: 'Your account is inactive, would you like to activate it now?'
3	Patient chooses to not activate their account	
4	Use case ends	

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Table 22 shows Alternate Flow (AF) number 14.

AF Name & ID		AF14 - Patient requests to resend account activation code
Step	Alternative Flow	UI/Notification
1	This flow starts at step 20 of the basic flow when patient chooses 'Resend code' button	
2	This flow returns to step 19 of the basic flow	"Check your email. Please enter account activation code."
3	Use case ends	

Table 23 shows Alternate Flow (AF) number 15.

AF Name & ID		AF15 - Patient enters incorrect code
Step	Alternative Flow	UI/Notification
1	This flow starts at step 21 of the basic flow when patient enters incorrect account activation code	
2	This flow returns to step 19 of the basic flow	'Check your email. Please enter the account activation code.'
3	Use case ends	

DETAILED REQUIREMENTS

Table 24 shows Business Rule (BR) ID, name, type, description and its association with the use cases' steps.

BR ID	Rule Name	Rule Type	Description	Step (In Use Case)
BR001	User consent	Actor Conditions	Patient must agree to privacy policy and terms and conditions in order to proceed with the capturing of EHR photo.	UC001-007 - Step 12
BR002	Information completeness	Actor Conditions	Patient must complete all mandatory information to submit registration request.	UC001-007 - Step 18
BR003	Unique patient record	Data Evaluation	Patient records must be unique in the database.	UC001-007 - Steps 20, 4, 18 -AF03 - 5 -AF04 - 5
BR004	Authentication requirement	Process Conditions	Patient must pass the authentication code check to complete registration.	UC001-007 - Step 20
BR005	Authentication Window	Actor Conditions	The window for email authentication is 2 minutes per attempt	UC001-007 - AF14
BR006	Patient definition	Data Definition	Patient is someone who accesses online registration service to register online	UC001-007
BR007	Patient portal account status	Data Creation	DE020 - Patient portal status must be changed to "activated" once patient enters correct activation code.	UC001-007 - Step 22

DETAILED REQUIREMENTS

BR008	Staff member definition	Data definition	Staff members are those who have access to the online EMR system and can address patient queries regarding their visit.	UC001-007 -AF04 - 6
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Table 25 shows Business Data (BD) ID with Data Elements (DE) numbers. The corresponding business terms, existing/new status of data, business/formatting rules, business term examples, and use case steps provide more insights into each DE/BD.

BD ID	Business Term	Business Term Definition	Existing / New	Business/Formatting Rules	Business Term Example	Step(s) (In Use Case)
DE001	OHIP Card Barcode	Health card barcode as printed on the OHIP card	Existing	PDF417 barcode type, machine-readable and encoded with data.		UC001-00 7 - Steps 2 & 4
DE002	Processing Time	The time it takes for the system to process barcode/card number requests	New	Numeric	00:00 (Minutes and Seconds respectively)	UC001-00 7 - Step 4 -AF03 - 5 -AF04 - 5
DE003	OHIP Card Number	Health card number as printed on the OHIP card	Existing	Alphanumeric in the following format: 0000-000-000-X X	1234-567-891 -JD	UC001-00 7 -AF03 - 3 -AF04 - 3

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DE004	Patient's name	Patient's legal name including first and last names	Existing	Alphabetic	John Doe	UC001-00 7 - Step 6 -AF05 - 2
DE005	Patient's date of birth	Patient's date of birth as shown on ID	Existing	MM-DD-YYYY	06-30-1996	UC001-00 7 - Step 6 -AF05 - 2
DE006	Patient's address	Patient's current residential address	Existing	Alphabetic, must include street number, street name and postal code	123 Happy Avenue, T1P 4X5	UC001-00 7 - Step 6 -AF05 - 2
DE007	Patient's phone number	Patient's active phone number	Existing	Numeric in the following format: (XXX) XXX-XXXX	(437) 123-4567	UC001-00 7 - Step 6 -AF05 - 2
DE008	Patient's email address	Patient's active email address	Existing	Alphanumeric in the following format, case insensitive: Xxx@xxx.xxx	john.doe@g mail.com	UC001-00 7 - Step 6 -AF05 - 2
DE009	Emergency Contact's name	Patient's next of kin legal name, including first and last names	Existing	Alphabetic	Jane Doe	UC001-00 7 - Step 6 -AF05 - 2

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DE010	Emergency Contact's phone number	Patient's next of kin active phone number	Existing	Numeric in the following format: (XXX)-XXX-XXXX	(437)-223-3232	UC001-00 7 - Step 6 -AF05 - 2
DE011	Emergency Contact's email address	Patient's next of kin active email address	Existing	Alphanumeric in the following format, case insensitive: Xxx@xxx.xxx	jane.doe@g mail.com	UC001-00 7 - Step 6 -AF05 - 2
DE012	Allergy history	Patient's food and medicine allergy history	Existing	Free-text	Peanuts	UC001-00 7 - Step 8 -AF06 - 2
DE013	Medication history	Patient's history of medication use	Existing	Free-text	Levodopa 25mg	UC001-00 7 - Step 8 -AF06 - 2
DE014	Health history	Any medical history of the patient	Existing	Free-text	Hypertension	UC001-00 7 - Step 8 -AF06 - 2
DE015	Questionnaire response	Response of the patient to questionnaire	New	Checkboxes with corresponding statements that apply to the patient		UC001-00 7 - Step 8 -AF06 - 2

DETAILED REQUIREMENTS

DE016	EHR photograph	Photograph of Patient's face, taken through kiosk camera	New	Image	(Photograph of Patient, taken using kiosk camera)	UC001-00 7 - Step 12
DE017	Existing account email address	Patient's email address, registered to an existing account	Existing	Alphanumeric in the following format, case insensitive: Xxx@xxx.xxx	john.doe@g mail.com	UC001-00 7 - Step 18 -AF12 - 4
DE018	New account email address	Patient's email address, register for a new account	New	Alphanumeric in the following format, case insensitive: Xxx@xxx.xxx	john.doe@g mail.com	UC001-00 7 - Step 18
DE019	Password	Password created for registration by patient	New	Alphanumeric in the following format: XX12X4567XX#? ! - Case sensitive - At least 14 characters -Must include numbers, symbols and	AB-qw0910!0 111	UC001-00 7 - Step 18

DETAILED REQUIREMENTS

				uppercase letters		
DE020	Security answer one	Patient's answer to selected security question	New	Free-text	Hyundai	UC001-00 7 - Step 18
DE021	Security answer two	Patient's answer to selected security question	New	Free-text	Los Angeles	UC001-00 7 - Step 18
DE022	Account activation code	The code sent to patient's email address for authentication	New	eight-digit alphanumeric	AB-1234-CD	UC001 – 12,14