Project Vision document

For

CORA Kiosk Application

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Prepared by Group Number 8:

Alison Reavell-Roy, Amani Yagob, Amirhasan Khoramroudi, Arezou Bakhsha, Bhavani Sethuraman, Katreen Suleiman, Luiz Gustavo Santos Silva, Mahsa Samadi, Tong Yu

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George Brown College

Professor Dhara Desai and
Professor Esther Shalini Rajasekaran
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Section 1.0 – Introduction

1.2 Overview

This initiative aims to introduce a tailored kiosk application named Cora, explicitly crafted for the management of patient identification, verification, and clinical information within healthcare settings. Featuring diverse identification methods, predefined access rules, and robust verification functionalities, Cora aims to provide a tailored solution to enhance patient interactions and streamline data management within the Family Physician's Office. Designed as a centralized and user-friendly kiosk, Cora optimizes patient flow, supporting barcode scanning, while also facilitating personalized data verification and updates.

Strategically positioned for optimal patient flow, Cora addresses key aspects for the go-live phase, encompassing physical placement, departmental configuration, privacy measures, and a holistic approach to marketing and training strategies. Operating during extended clinic hours from 10 am to 6 pm, Monday-Friday, and occasional Saturdays, Cora Kiosk Implementation project aims to transform the patient experience, fostering efficiency, accessibility, and data accuracy in alignment with the Family Physician's Office's dedication to delivering exceptional healthcare.

1.3 Background

The motivation for initiating the Cora Kiosk Implementation project stems from a fundamental need to improve and streamline patient check-in procedures within healthcare facilities. The current manual check-in processes, although prevalent, are labor-intensive, leading to inefficiencies and prolonged patient wait times. In addition to these challenges, manual processes have the potential to compromise data precision, impede resource optimization, and hinder the seamless integration of technological advancements within the healthcare system.

This initiative aims to introduce the Cora Kiosk application as a transformative solution in healthcare facilities, fostering a more efficient, precise, and patient-centric operational environment. Ultimately, the Cora Kiosk implementation project represents a proactive step toward embracing modern technological solutions to enhance the overall quality of healthcare delivery.

1.4 In-Scope

1. Identification

Patients can easily check in at the Cora Kiosk using Barcode Scanning – Which enables swift and accurate identification through a unique barcode associated with patient identification present in the OHIP card or clinic-issued card.

Additionally, the configuration of rules in the Cora Kiosk system provides a mechanism to customize and control access that restricts specific patients from using the kiosk. This restriction might be necessary for various reasons, such as if a patient requires special assistance during check-in, has specific appointment requirements, or if certain patients need to follow a different check-in process. By having the ability to control and limit access to the kiosk based on predefined rules, the system ensures a secure check-in experience.

2. Verification

- Demographic and Other Personal Information :

Within this feature, patients gain the ability to confirm or modify essential personal details, such as home address, email, phone numbers, emergency contact, and information regarding their primary care provider. This functionality is pivotal in maintaining data accuracy within the clinic's records, ensuring the patient information is current and reflective of any changes in their personal circumstances.

- OHIP Coverage

This feature enables the patient to effectively review and update their Ontario Health Card for Real-Time Eligibility (RTE). Patients can seamlessly verify their coverage status, ensuring that the clinic has the most up-to-date information for each individual. This functionality is crucial for advancing accuracy within the billing and insurance process.

- Clinical Information

The clinical information feature empowers patients by providing them the capability to review and modify their clinical details. This includes essential information such as allergies, medications, health issues, and the completion of health questionnaires. This functionality not only results in time-saving during office visits but also significantly contributes to the overall accuracy of patient records.

3. Questionnaires

The Cora Kiosk provides easy-to-understand questionnaires that are pre-determined by qualified healthcare professionals within the clinic with the aim to gauge patient acuity and health history. This feature plays a vital role in enhancing the depth of patient information, enabling healthcare providers to effectively prioritize and address patient needs within the clinic. Cora collects various types of information, including infection control details such as travel history, contact with infected individuals, and respiratory symptoms. Additionally, it gathers data on acute pain symptoms, relevant health history, changing health statuses, and incorporated patient satisfaction surveys. This capability streamlines the data collection process and also provides healthcare providers with valuable insights to efficiently deliver and prioritize patient care within the clinic.

4. Photos

The Cora Kiosk's photo feature introduces a visually intuitive experience by displaying patient and provider photos during workflows. The kiosk's webcam functionality enhances patient identification and record-keeping by securely capturing patient photos. Stringent privacy measures will be implemented to ensure compliance with data protection regulations, contributing to personalized yet secure healthcare interactions

5. Patient Portal Sign-up

This feature of Cora proactively engages patients by prompting those who are not active on the Patient Portal to either create new accounts or reactivate existing accounts. Patients can conveniently choose to complete the sign-up process directly on the kiosk or opt for an activation link. This user-friendly feature encourages and streamlines patient involvement with the clinic's online portal, fostering increased accessibility to digital healthcare resources and enhancing overall patient engagement.

6. Multiple Language Support

Cora offers multiple language support including Farsi and French, allowing content to be displayed in languages other than English. This configurable feature is designed to cater to the diverse linguistic preferences of the community, fostering inclusivity and ensuring that the kiosk is accessible to a wide range of users with varied language preferences.

1.5 Out of Scope

- Payment Processing: Cora will not include functionalities for processing payments related to healthcare services. Patients will continue to handle billing and payment matters through existing channels.
- Changes to Clinic Operating Hours: The project does not involve changes to the operating hours of the clinic. The kiosk will operate within the existing clinic schedule.
- Emergency Services: The kiosk will not be equipped to handle emergency medical services. In case of medical emergencies, patients are directed to seek immediate assistance through emergency services.
- Health Insurance Claims: Patients are required to adhere to the clinic's established procedures for matters related to insurance.

Section 2.0 – Project Vision

2.1 Problem Statement

The problem	In a busy family physician's office, the lack of a self-check-in kiosk for walk-in and scheduled patients leads to extended wait times, heightened administrative workload, and potential conflicts between patients and administrative staff regarding appointment processing. These issues contribute to disruptions in the smooth flow of patient appointments, underscoring the urgency for an efficient and patient-friendly check-in solution.
Who it affects	Patients - Administrative Staffs - Physicians
the impact	In the absence of self-check-in Kiosk: Patients: • May experience prolonged check-in times, especially when administrators are occupied with other tasks. • May have a disagreement with administrative staff about visit times. • May require more time on the check-in process due to necessary interactions. • May feel a lack of attention when administrative staff are absent from the front desk or are on the phone. • May experience embarrassment or discomfort due to language barriers. Administrative Staffs: • May bear a heavier workload for check-in. • May have conflict with patients regarding their visit time. • May cause more human error. Physicians: • May lose the advantage of working in a calm environment. • May need to handle some administrative tasks themselves or anticipate delays in their completion.
a successful solution	A user-friendly check-in kiosk has the potential to diminish check-in waiting times, alleviate the administrative staff's workload, and enhance clinic workflow by streamlining patient flow and improving overall administrative efficiency.

2.2 Product Statement

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For	Patients / In Dr. Health Medical Clinic
Who	Want to be able to do self-check-in within their arrival at the clinic.
The product name	Cora
That	is streamlining the check-in process regardless of administrative staffs availability, reducing the workload of the staffs, increasing the efficiency of the clinic
Unlike	Unlike other self-check-in kiosks like PatientTraK, which necessitate patients to input their name using a touch screen, Cora offers the option to scan health card barcodes for a quicker search based on their unique ID. Additionally, Cora includes a feature enabling patients to book follow-up appointments.
Our product	Provide simple and user-friendly features available in required languages.

Section 3.0 – Stakeholder Analysis

Stakeholder	Interests	Impact
Patients (Walk-in and Rostered)	Convenient check-in, reduced wait times, privacy, and ease of access to information.	Positive, as the kiosk can streamline the check-in process and provide useful information.
Family Doctor	Efficient patient management, improved patient satisfaction, and reduced administrative burden.	Likely positive, assuming the kiosk improves office efficiency.
Physician Assistant	Streamlined workflow, less time spent on administrative tasks.	Positive, as the kiosk can handle routine check-ins and information dissemination.
Dietitian (Part-time)	Efficient scheduling, patient education.	Neutral to positive, depending on how much the kiosk is used for nutritional information dissemination.
Laboratory Technicians (for Blood Work)	Efficient patient flow, and accurate patient information.	Positive, as a well-implemented kiosk can ensure better patient scheduling and information accuracy.

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Administrative Staff	Reduced workload, efficient patient handling.	Positive, as the kiosk can take over routine tasks like check-ins.
Clinic Management/Owners	Cost efficiency, patient satisfaction, regulatory compliance.	Positive, provided the kiosk improves overall clinic efficiency and patient experience.
Ministry of Health	Public health management, accessibility, regulatory compliance.	Neutral to positive, assuming the kiosk adheres to healthcare standards and improves accessibility.
Technology Vendor (Kiosk Provider)	Successful implementation, long-term maintenance contract.	Directly positive, as their product is being utilized.
Local Community	Accessible and efficient healthcare services.	Neutral to positive, as the community benefits from more efficient healthcare services.
IT Support Staff (If Applicable)	System stability, ease of maintenance.	Neutral to positive, depending on the kiosk's technical reliability.
EMR vendor - Accuro	Fully Integrated, digital front door	Positive, expanding product capabilities

Section 4.0 Process Models

4.1 Process Workflows
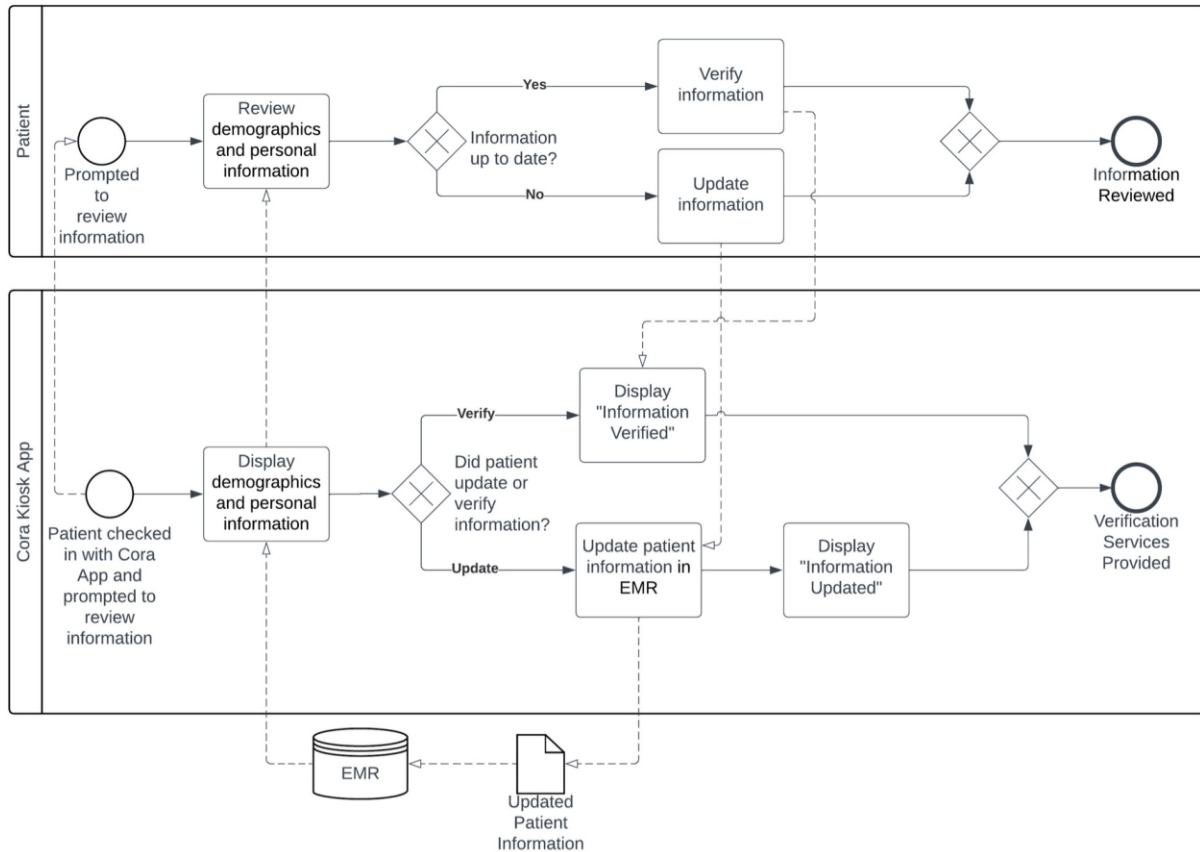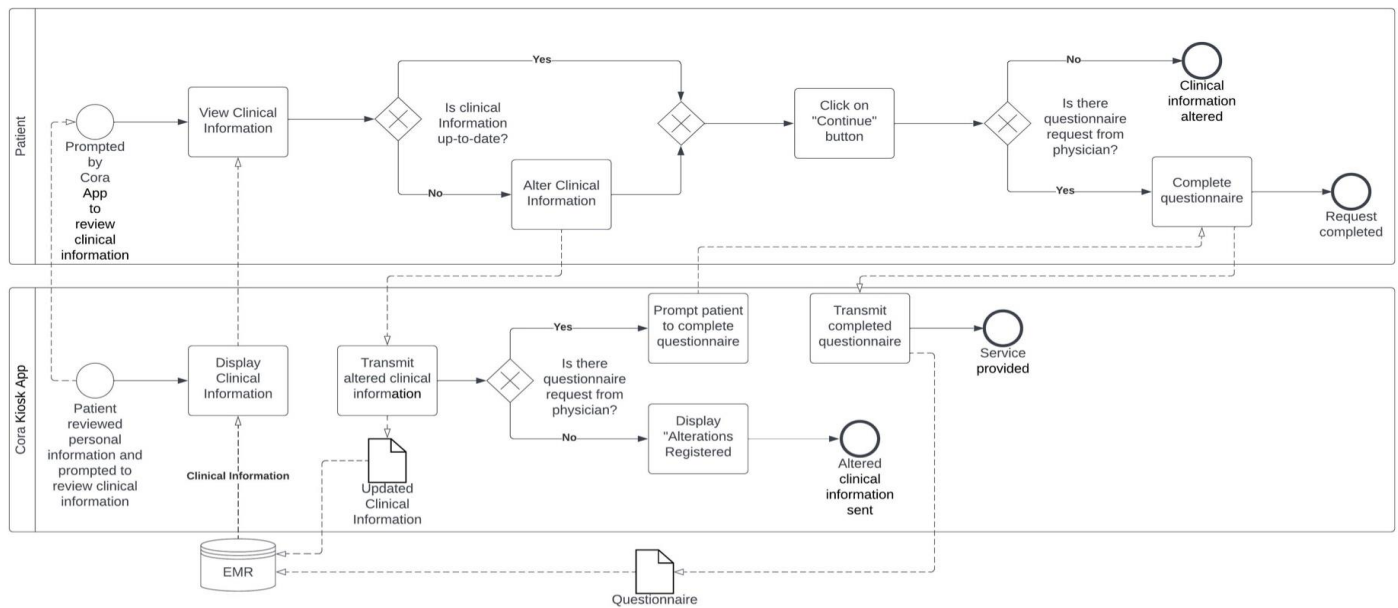
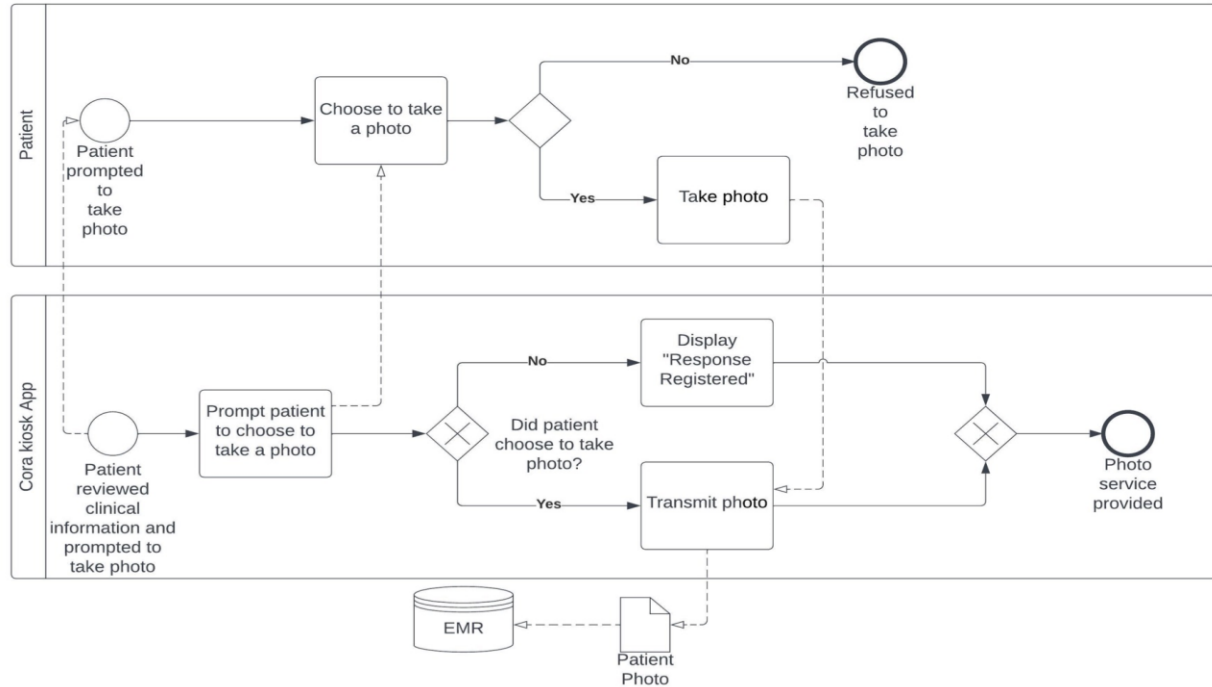### 4.1.1 Language Feature
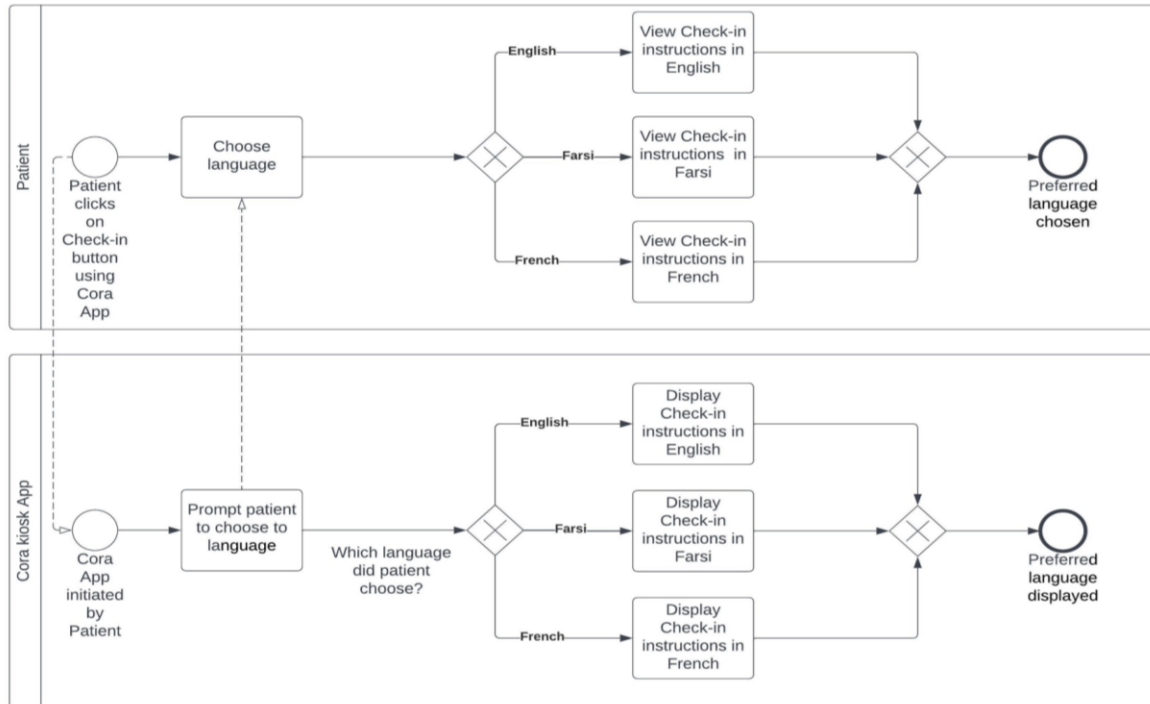
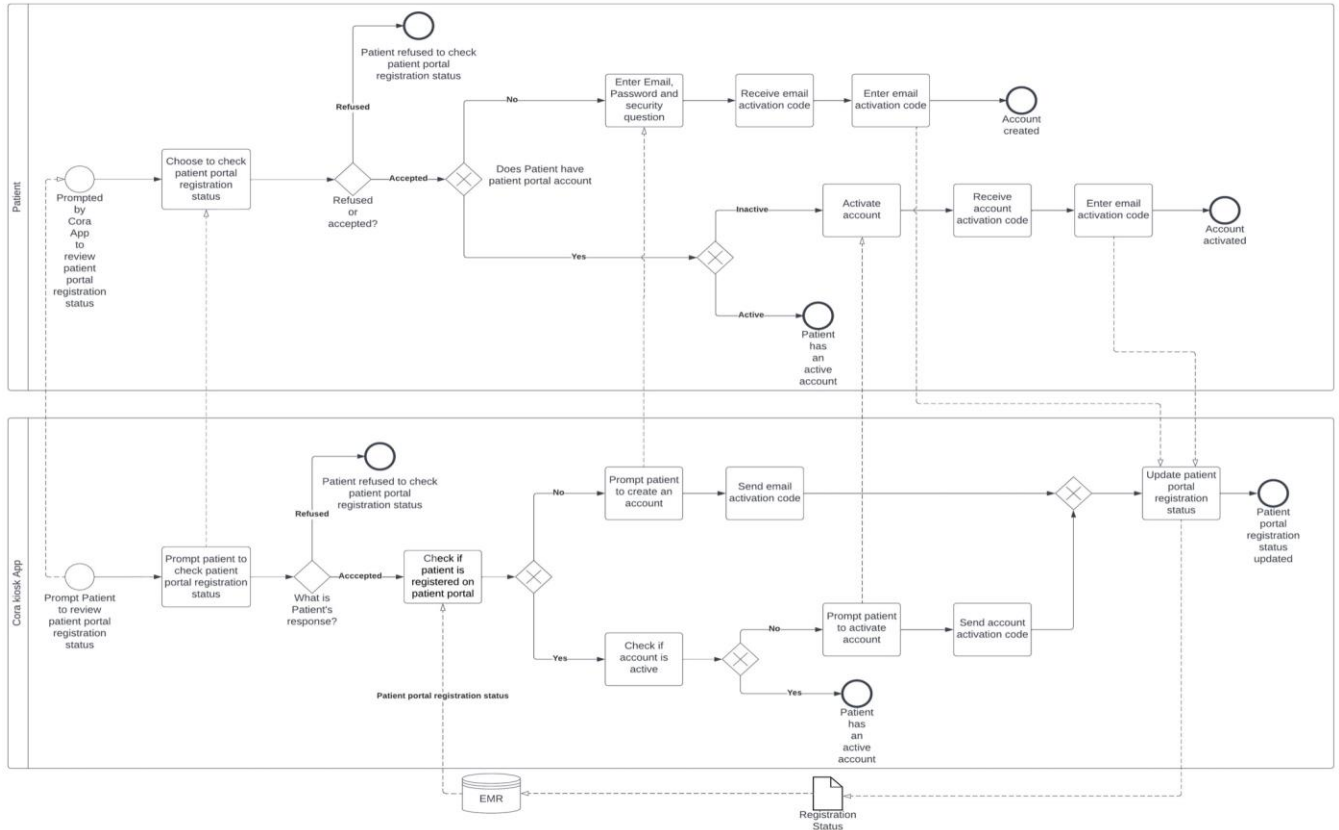### 4.1.2 Check-in Feature
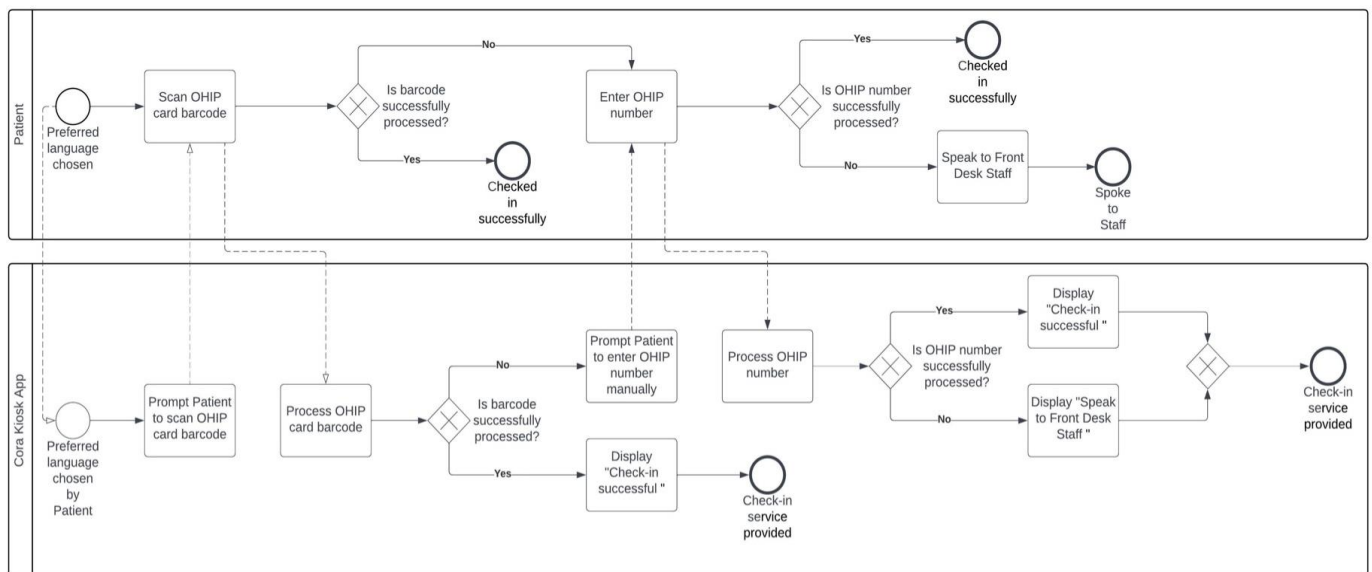
4.1.3 Verification Feature

4.1.4 Clinical Information Alteration and Questionnaire Feature

4.1.5 Photo Capturing Feature

4.1.6 Patient Portal Feature

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Section 5.0 Stakeholder Requirements

5.1 Stakeholder Requirement Overview

ID	Requirement	Description	Importance
1	**User-Friendly Interface**	We aim to design Cora with an intuitive user interface, enabling patients to navigate seamlessly and execute tasks efficiently, therefore enhancing the overall user experience.	High
2	**Personalized Health Information**	We envision Cora Kiosk to function as a dynamic platform, empowering patients to input their preferences and medical history. Patients are able to complete general screening, such as IPAC, but also personalized medical screening questionnaires specific to his/ her own medical history. For example, if a patient is coming for generalized anxiety the provider will be able to upload a GAD questionnaire to their profile to be filled out on the Kiosk.	Medium
3	**Privacy and Security**	As a business stakeholder, we emphasize the necessity for Cora to prioritize the confidentiality and security of personal health information. Achieving this requires the implementation of secure login methods and transparent processes for obtaining data usage consent, fostering trust and adherence to privacy standards. Privacy screen is also installed on the kiosk to mitigate the risk of unauthorized observation from other individuals.	High
4	**Multilingual Support**	Our expectation for Cora is to offer three languages, English, French and Farsi. This feature is essential to provide users with the option to select their preferred language during interactions, thereby ensuring inclusivity and effective communication.	Medium
5	**Training**	As both administrative staff and users of Cora,we need thorough training sessions to ensure a smooth understanding of the system's functionalities.	High

Detailed Stakeholder Requirement please refer to Appendix.

Section 6.0 Assumptions

Several key assumptions must be considered to ensure the application's effectiveness and patients' satisfaction.

- Patient technology level: patients using the Cora Kiosk application will have basic technological knowledge to be able to interact with the system.
- Diverse patient groups: patients accessing kiosk will be diverse in age, language, and background, requiring the Cora system to provide a user interface that is suitable for a wide range of preferences and needs.
- Privacy compliance: strict adherence to privacy regulations as per PHIPA, to ensure protection and confidential handling of patient data collected through the kiosk.
- Infection control measures: regular cleaning and disinfecting protocols will be implemented to prevent the transmission of infection between patients and staff.
- Staff training: clinic staff (healthcare personnel and administrative staff), will undergo training to proficiently manage, maintain and troubleshoot the system.
- Patient acceptance: patients will be willing to use the kiosk for check-in and data verification, and will understand its advantages and role in enhancing efficiency and data accuracy.
- Financial investment: adequate resources will be allocated for installation, maintenance, and regular software updates.
- Clinic operating hours: The Cora schedule to operate will align with the clinic's working hours.
- Language preferences: patients and staff will mainly use Cora in English, French, and Farsi, and can be updated when needed.

Section 7.0 Constraints

- Patient privacy: Difficult to find private space in the office to secure a space for patients to enter information privately. Space may need to be remodeled to accommodate the Kiosk. Patients may not feel secure with just the screen privacy filter.
- Data security: not all EMR vendors will be interoperable with the Cora Kiosk software.
- Infection control: Staff may not have enough time to clean the Kiosk screen after every patient use and this could be a site of transmission of infection between patients and patients or patients and staff.
- Accessibility: Using the kiosk could be difficult for some patients with low mobility, visual or technical skills

- Network reliability: If there are network failures information stored in the kiosk may not be able to interact with the EMR system.
- Language: Not all languages will be available to patients; however, English, French and Farsi will be offered at the clinic.
- Training: Staff may not be technology savvy and may struggle with training, maintenance and utilization of the Kiosk. Kiosk updates may require staff to be informed and capable of understanding the change in the use of technology.
- Financial investment: There would be an initial cost of installing the Kiosk and ongoing maintenance costs as well as software updates.
- Patient compliance of use: Patients may be resistant to the use of technology to input personal health information, patients may prefer face-to-face interactions with admin staff

APPENDIX

ID Legends

SR	Stakeholder Requirement
PT	Patient
PHY	Physician
PA	Physician Assistant
TS	Technological Support
AS	Administrative Staff
ID	Identification
VE	Verification
QS	Questionnaire
PP	Patient Portal
LG	Language

Requirement: User-Friendly Interface	
ID	**Requirement**
SR-PT-ID-01	Patient must be able to look up his/ her name on the kiosk
SR-PT-ID-02	Patient must be able to scan OHIP card barcode on the kiosk
SR-PT-ID-03	Patient must be able to swipe OHIP card on the kiosk
SR-PT-ID-04	Patient must be able to view their profile picture on the kiosk

SR-PT-ID-06	Patient must be able to take new profile picture using the built in camera on the kiosk
SR-PHY-ID-01	Physician must have access to a summary of patient-provided health information from Cora.
SR-PHY-ID-02	Physician must be able to review and validate patient-updated clinical information on Cora
SR-PHY-ID-03	Physician must receive real-time alerts for critical updates made by patients on Cora
SR-PA-ID-01	Physician assistant must have access to the summary of patient-provided health information on Cora.
SR-PA-ID-02	Physician assistant must be able to review and validate patient-updated clinical information on Cora
SR-PA-ID-03	Physician assistant must receive real-time alerts for critical updates made by patients on Cora
SR-TS-ID-01	Technological support must be able to enter staff ID on Cora
SR-AS-ID-01	Administrative staff must be able to access to the summary of patient-provided health information on Cora
Requirement: Personalized Health Information	
SR-PT-VE-01	Patient must be able to verify and update personal information on the kiosk Personal information includes the followings: home address, mobile number, work number, landline, email address, emergency contact name, emergency contact number, emergency contact relationship

SR-PT-VE-02	Patient must be able to verify and update PCP information on the kiosk
SR-PT-VE-03	Patient must be able to verify and update coverage information on the kiosk
SR-PT-VE-04	Patient must be able to verify and edit clinical information on the kiosk Clinical information includes the followings: allergies, medication history, and general health issues
SR-PT-QS-01	Patient must be able to fill COVID-19 screening questionnaire on the kiosk
SR-PT-QS-02	Patient must be able to fill travel history questionnaire on the kiosk
SR-PT-QS-03	Patient must be able to fill fall assessment questionnaire on the kiosk
SR-PT-QS-04	Patient must be able to fill other questionnaires configured by clinicians on the kiosk
SR-PT-PP-01	Patient must be able to send activation link in patient portal to himself/ herself through text or email on the kiosk
SR-PT-PP-02	Patient must be able to register in patient portal directly on the kiosk
SR-PT-PP-03	Patient must be able to reactive his or her patient portal account on the kiosk
SR-PT-MC-04	Patient must be able to deactivate his or her patient portal account on the kiosk.

SR-PHY-VE-1	Physicians should have access to accurate and updated patient information for efficient and prioritized patient care within the clinic.
SR-PHY-QS-01	Physicians should receive comprehensive and accurate patient questionnaire responses, including infection control details, pain symptoms, and relevant health history, to inform effective patient care.
SR-PHY-VE-1	Physician assistant should have access to accurate and updated patient information for efficient and prioritized patient care within the clinic.
SR-PHY-QS-01	Physician assistant should receive comprehensive and accurate patient questionnaire responses, including infection control details, pain symptoms, and relevant health history, to inform effective patient care.
SR-TS-VE-01	Technological support must have the authority to troubleshoot on the kiosk in case of a technical issue
SR-TS-VE-02	Tech support must have the authority to restart the kiosk in case of a technical issue
Requirement: Multilingual Support	
SR-PT-LG-01	Patient must be able to select his or her preferred language on the kiosk Available languages include the following: English, French, Farsi
SR-PHY-LG-01	Patient must be able to select his or her preferred language on the kiosk Available languages include the following: English, French, Farsi
SR-PA-LG-01	Patient must be able to select his or her preferred language on the kiosk Available languages include the following: English, French, Farsi

SR-TV-LG-01	Patient must be able to select his or her preferred language on the kiosk Available languages include the following: English, French, Farsi
SR-AS-LG-01	Patient must be able to select his or her preferred language on the kiosk Available languages include the following: English, French, Farsi