



Camosun College ICS 290 - Capstone Project Products Requirement Document

Wayfinder

Project Sponsor:

BC Government CITZ-IMB

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Version #	Implemented By	Revision Date	Approved By	Approval Date	Reason
v1.0.0	Team Wayfinder	07/25/2023	Robert Kobenter	07/28/2023	All features implemented

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1. Introduction

The Information Management Branch (IMB) is a central group responsible for IM/IT services within the BC Government, reporting to the Ministry of Citizen Services Chief Information Officer. In 2022, they initiated a project to modernize their portfolio of applications supporting various business units in delivering services to citizens and the Ministry. As part of this modernization effort, they are embracing Agile and LEAN approaches for developing IM/IT solutions. To facilitate this, they have expanded their in-house capacity and expertise in modern, open-source applications hosted on the BC Dev Exchange containerized hosting platform.

The Business Problem:

Access to Government services spans different categories, including information retrieval, permits, and social program benefits. Citizens access these services through various channels, such as web-based search engines, the government's main webpage (gov.bc.ca), and increasingly through mobile devices. However, locating a nearby ServiceBC office, which is crucial for some in-person interactions, can be challenging. Using tools like Google Maps may result in inaccurate addresses being suggested.

Our Hypothesis:

To address this problem, Team Wayfinder proposes leveraging on-device sensor location information to map location markers of a user's current location and surrounding offices. This solution aims to generate valuable service data to understand how users interact with the mobile application. This data includes frequency of use, types of services requested, online/offline network usage, and other relevant information throughout the product development phases. To ensure an efficient development process, Team Wayfinder will adopt an Agile approach, engaging the client in biweekly product sprint reports, allowing for flexible adjustments to requirements as needed.

2. Features

Feature	Find an Office
Description	A map to display the user's current location related to surrounding offices, filtered by location type .
Purpose	It allows the user to see which offices are closest to them along with services they offer.
User problem	It's difficult to know which offices are public facing based on third party solutions like google.
User value	This allows the user to visualize which offices with relevant public facing services are closest to them.

Assumptions	Location data has been collected.
Not doing	N/A
Acceptance criteria	<ul style="list-style-type: none"> • Location view contains a map component that displays the user's current location as well as surrounding offices. • Location view contains a searchable list of offices sorted by distance to the user. • Online and offline maps available. • Location range setting to filter the map. • Analytic stubs to collect relevant data.

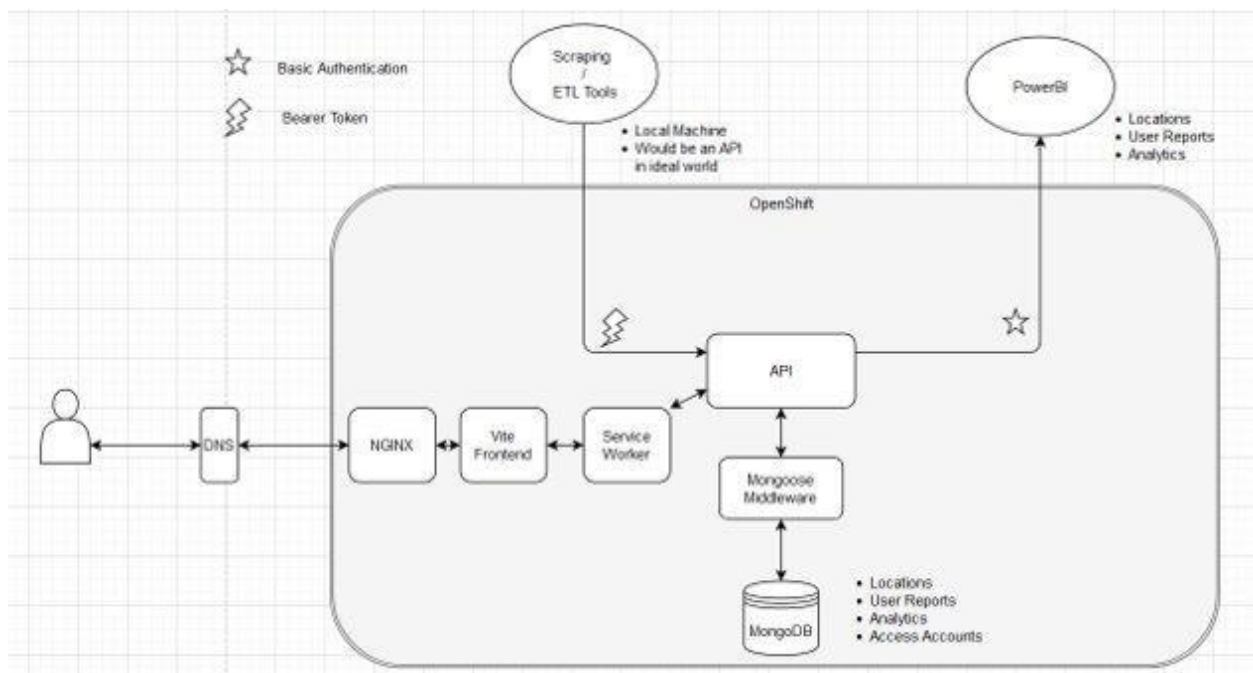
Feature	Find a Service
Description	A map to display the user's current location related to surrounding offices, filtered by services .
Purpose	It allows the user to filter the map by services.
User problem	A user may know the name of the service they need, but they may not know which office offers it.
User value	A user can filter the map component by services using a search bar.
Assumptions	The user knows what service they are looking for.
Not doing	N/A
Acceptance criteria	<ul style="list-style-type: none"> • Service view contains a map component that displays the user's current location as well as surrounding offices. • Service view contains a searchable list of services sorted alphabetically. • Online and offline maps available. • Location range setting to filter the map. • Analytic stubs to collect relevant data.

Feature	Report an Event
Description	A form that allows users to submit reports of events.
Purpose	To allow users to submit reports about damaged infrastructure, animal sighting, suggestions/complaints, etc.
User problem	A user may notice there is construction causing traffic to back up.

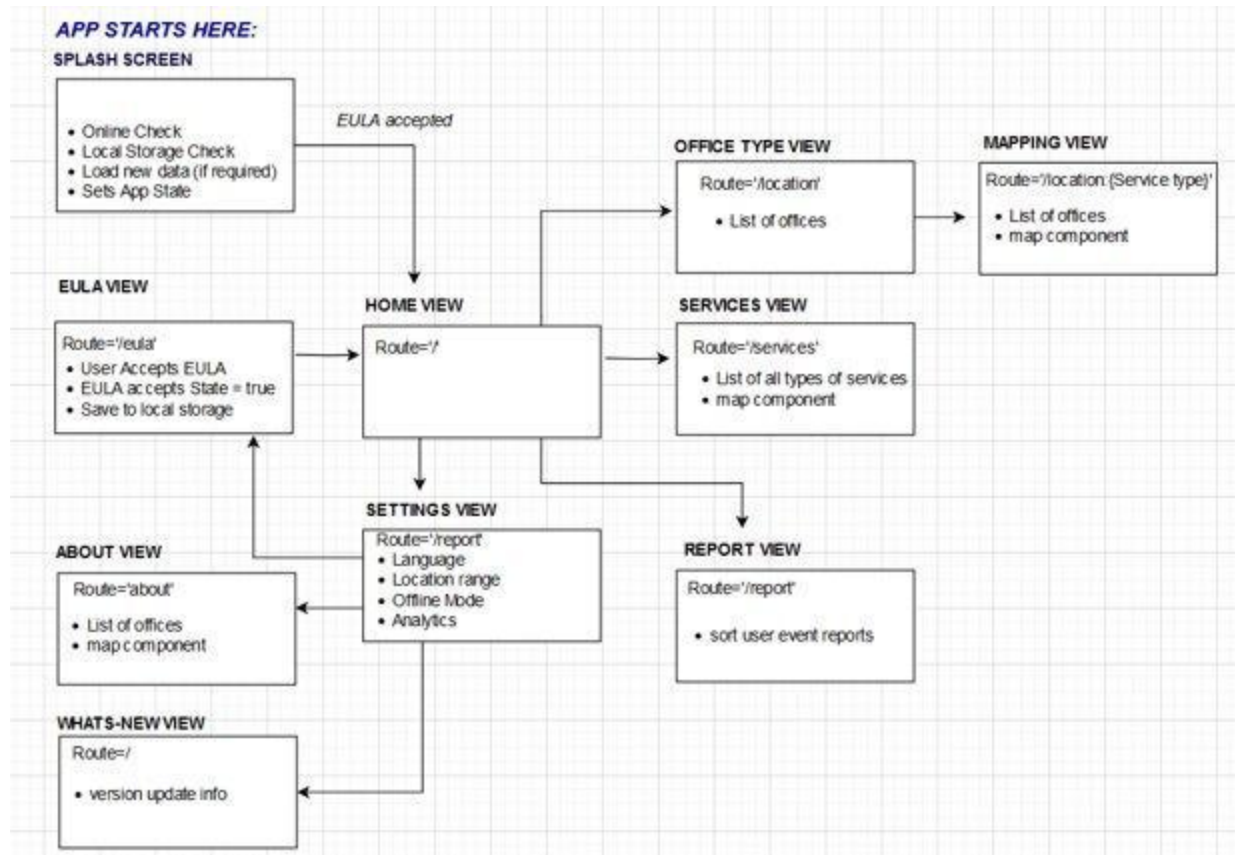
User value	They can seamlessly report on events in the world around them, while automatically sending the location of the user when the report is made.
Assumptions	The user agrees to the terms of service.
Not doing	N/A
Acceptance criteria	<ul style="list-style-type: none"> • Event type, Event details, and optional phone number fields. • Data validation for text fields. • Location of user automatically sent with each report. • Has a Report History view. • Has Offline capability.

3. User flow and design

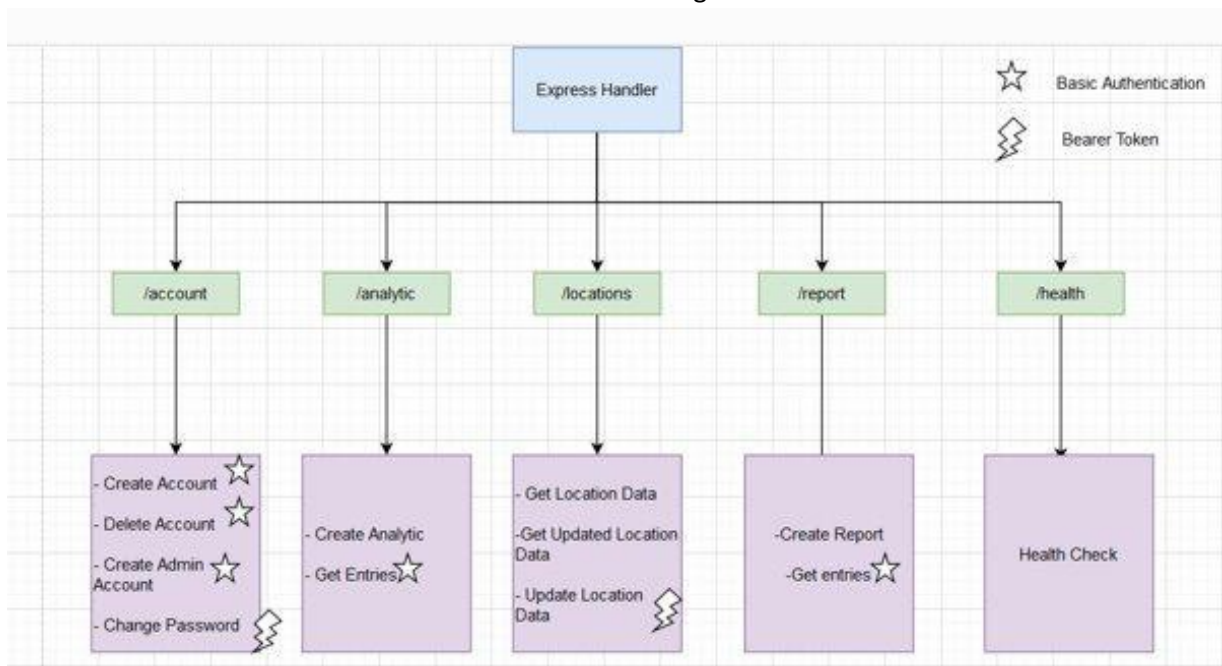
Below are our flow diagrams for the application followed by any wireframes that were created during our design process.



Application Flow Diagram



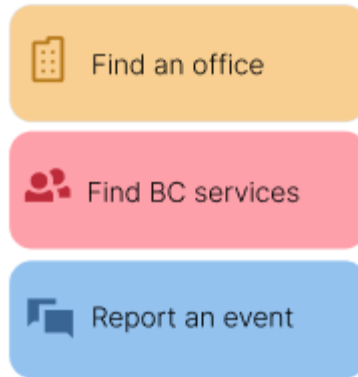
Front End Flow Diagram



Back End Flow Diagram



Connecting citizens to services



Home View Wireframe



Search for a setting

- Location data ☒
- Offline mode ☐
- Location range >
- Analytics ☐
- Notifications ☐
- About the app >
- User agreement >



Settings View Wireframe

4. Release Criteria

Release	1.0
Date	May 17 th , 2023
Initiative	Create the Wayfinder Application
Milestones	<ul style="list-style-type: none"> ● Create the initial VITE Shell (May 17th, 2023) ● Initial functionality for gathering user reports, mapping, and offline mode (June 01st, 2023) ● Add analytic capturing and offline mapping functionality (June 15th, 2023) ● Add user report history (July 12th, 2023) ● Redesign settings (July 26th, 2023) ● Ability to delete and redownload offline map tiles (July 28th, 2023)
Features	<ul style="list-style-type: none"> ● Find an Office/Location ● Find a Service ● Report an Event
Dependencies	N/A

5. Success metrics

Due to the Wayfinder application being a proof-of-concept our definition of success is delivering a working prototype that encompasses all the discussed features.

Deliver a working prototype:

- Must be hosted on the BC Government's OpenShift environment.
- Must implement "Find an Office/Location" feature.
- Must implement "Find a Service" feature.
- Must implement "Report an Event" feature.
- Must capture relevant analytic data.
- Must have the look and feel of a BC Government Application.

Key performance indicator	Baseline	Target	Timeframe
Create front end application views	0 Views	10 Views	End of Sprint 2
Collect analytics from "Find an Office/Location" feature to determine how often it's used	0 Uses	50 Uses	End of Sprint 5
Collect analytics from "Find a Service" feature to determine how often it is used	0 Uses	50 Uses	End of Sprint 5
Collect analytics from "Report an Event" feature to determine how often it is used	0 Uses	50 Uses	End of Sprint 5

Collect analytics to determine how many first-time users there are	0 New Users	20 New Users	End of Sprint 5
Pull in new data for different sources to increase offices and services displayed	0 Sources	5 Sources	End of Sprint 4

6. Constraints

Constraint/Risk	Likelihood (H,M,L)	Impact (H,M,L)	Owner (who manages the constraint/risk)	Mitigating Actions
Dedicated development time.	H	H	Capstone team	Extra out of office hours needs to be put in.
Lack of available government office location data.	H	H	Capstone team	Web scrapper will need to be created to gather necessary office location data.

7. Future work

Future features	Purpose	Priority	Timeframe
N/A	As the Wayfinder application is a proof-of-concept, there are no plans to add new features in the future or hand it off to another team.	N/A	N/A

8. Authorization

Project Sponsor

Robert Kobenter
Product Owner

Robert Kobenter

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Aug 09, 23

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