Project Phase 1: Inception Report

Names: Mustafa Khan, Ravi Bhagat, Van Minh Ngai
Student ID: 102938384, 105140023, 104831535
Group Number: 7
Due Date: June 25th 2020

Following document follows the FURPS+ model principles to produce the Inception report:

Vision & Business Case:

The vision for this project is to create a next generation open data access portal complete with the ability to gather, manage and distribute data in various different formats for the City of Windsor and its stakeholders, namely the taxpayers, citizens and non-profit businesses. Its overall goal and purpose is to help the City of Windsor make better and make more informed decisions with respect to all sectors of the economy and add other wide array of subjects when it comes to serving the public. The long-term goal and objective of this project is to provide the public with access to the municipal government's data, which gives the public better insight into the activities of the government and the use of their tax money. It also allows the public to use the data collected as a statistical tool so that they may develop consumer and commercial products for the City. Other long-term ramifications of this tool include the support for innovation in the form of data, which can be used in the private sector to analyze markets, predict trends and make strategic business decisions when it comes to local businesses.

Use-Case Model:

There are many use-cases when creating an open data access portal. The use cases that are absolutely required to think about when creating such a project include cases such as: the initial start of the tool which would involve the front page of the tool which would have the catalog of data from different sectors that are available to the user, from there the user can choose to click on any sector or subject which would bring them to the specific page for that subject which would contain all its information including the data sets, metrics, downloadable files in different formats, summary, contact info etc.

Another case would involve the user accessing the data from each sector, which would involve the user opening the portal then clicking on the sector they choose then being brought to the specific page for that sector/subject then clicking the metrics that are available for them to download and then choosing the format they wish to download the file in and then the file being downloaded to the user's device.

A further use-case would be the user searching the tool for their specific sector/subject they wish to view, this would occur when the user starts the tool up and going to the search bar which would be present at the top right corner of the screen, then the user would enter their query which would then bring them to a page that shows the list of the results of their query from which the user can select bringing them to the specific sector/subject they desire in which they can download the data.

Supplementary Specification:

Supplementary specifications for this project include licensing requirements, which would be needed for certain sectors/subjects in which data collection is regulated and requires the use of proper licensing. Ease of use and the UX of the website for users is also a key area in

terms of supplementary specification that needs to be addressed. User feedback on the quality of our metrics and suggestions that users may have that could be used to better improve the tool is also an area to be looked into, along with error handling and logging reports to ensure that the data is not skewed in any way. A smaller issue that needs to be addressed is also the privacy of the data collection and how the data is managed after its collection so that there are not any legal implications of the data being stored and managed. Recoverability of the stored data is another key supplementary issue that needs to be addressed, in case the data that is stored in the servers is not lost and unable to be recovered.

Glossary:

Term	Definition and Information
Open data	Defined as a data structure that is shared freely, readable, and freely to build without restrictions.
Bug report	Report of the software bug that unexpectedly occurs or behaves in an unintended way during final testing.
APIs	API or application program interface is a set of tools, protocols for building software application.
IT	IT (Information Technology) refers to anything related to computing technology, such as software, internet, networking, etc.
Code repository	An archive of code for the software archives, where you can have project's technical documentation, patches, etc. It can also be accessed publicly (open-source) or privately.
Documentation repository	This can be defined as a group of documents, which can be retrieved. This group shares common features such as fields and their properties.

Risk List & Management Plan:

Some of the risks of this project would include the risk of privacy, and the accuracy of the data. There will be a risk of publishing more data as the risk of inaccuracy, or make restriction on publication to publish more accurate data with extremely low speed publication. Because of this inaccuracy of data, trust issues may arise and become another important risk for the project as users may be wary to trust the accuracy of our data sources. Moreover, clients will use their email to sign up and get updates of the data monthly, as developers need to maintain and manage the privacy and security of the client information. There is a possibility of cybersecurity risks to our internal IT system such as security gaps in the IT system, etc. Developers should be aware of the virus and malware that infected the physical media used in open data. In addition, there will be some technical issues that we should be aware of such as low-quality datasets, this can happen because of the different formats, duplicated data, and

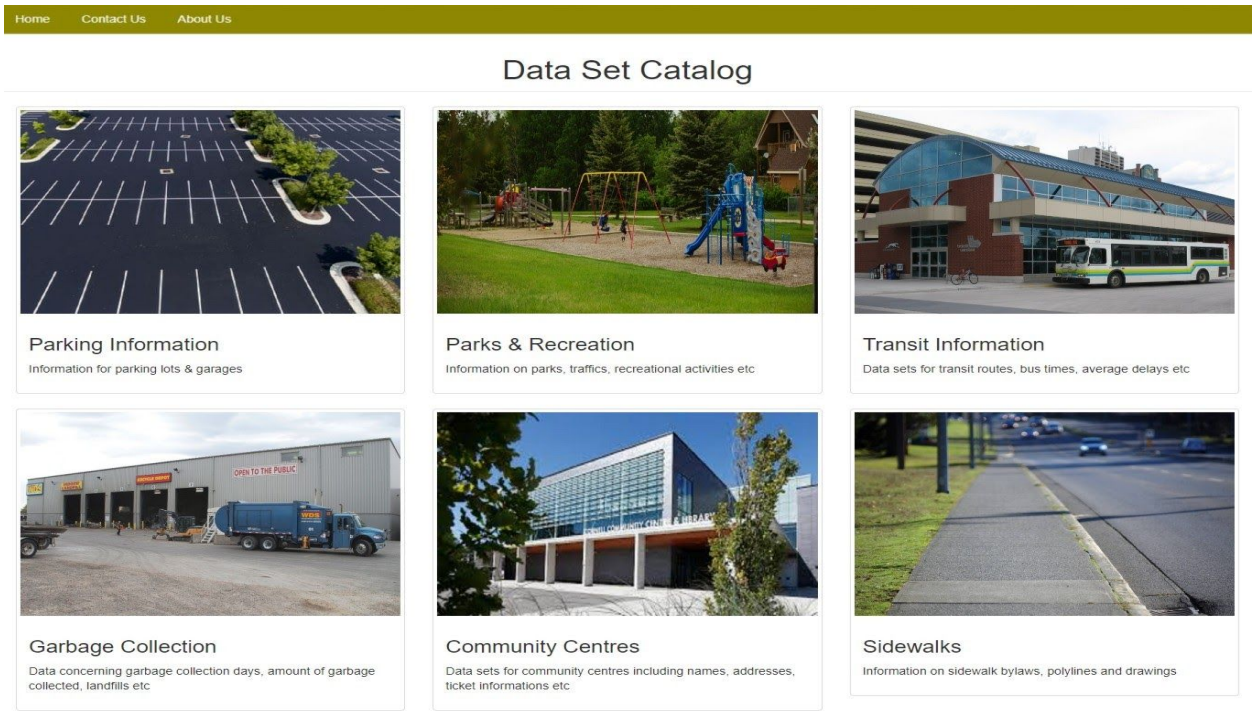
unknown data sources. The identity exploitation might happen because of the interception by a third party or data leakage, etc. This would cause a low trust from clients for the project. In order to improve these security gaps, we can use the open data sharing risk assessment toolkit. This toolkit will help developers to identify the risks and benefits involved with making a data structure such as open data portal. Therefore, following questions must be addressed while working on the project:

- Is the client's information secure?
- Is the data correct and unintentionally falsified?
- How can we protect data correctness from the possibility of authorizing changes?
- How can we protect user's privacy, i.e., email, etc.?
- How can we protect, improve and reduce the possibility of cybersecurity risks to our internal IT systems?

Prototype & Proof of Concepts:

As we can see in the screenshot below the website is a mere prototype and it does nothing other than give the feel of what browsing on the website will look like and allows us to move around from one section to another section. So far, we have added six of the catalogs in the website. We will be adding more features and fields as we move from one iteration cycle to another. It is not the complete project by any means.

Note: This webpage has been made with HTML and CSS and you can find the source file attached with this document in the submission. A template was used to help make this website.



Iteration Plan:

Since this is a project which requires a lot of details and a lot of people are going to be using it, we need to make sure we get opinions of the stakeholders of the City in each development cycle (usually every 2-3 weeks), therefore using we will use the Agile process rather than the Waterfall to develop this project. In the first elaboration phase, we will develop the project's front end, which is just a user interface and it gives the feel of what the webpage will look like at the end as we browse from one section of the page to another. Employees must-have team collaboration tools for their team members, such as code repository, version control, bug reporting tool and project management/task tracking, testing strategy, documentation repository, etc. We will also need to provide the architectural designs for use cases, class diagrams, sequence diagrams, etc. in phase 1 elaboration.

Phase Plan & Software Development Plan:

As we have mentioned in the above section, we will need few tools and education in order to get this project under way. We believe we will not need anyone's help other than the input from the stakeholders who can give their opinions on the project at the end of each development cycle and the input from the City of Windsor officials. As far as tools go, as we have mentioned in the above section, we will need collaboration tools for team members, such as code repository, version control, bug reporting tool and project management/task tracking for the team, testing strategy, documentation repository, etc. In addition, as far as coding tools go, we will be using Atom text editor to edit HTML, CSS, JavaScript, PHP, SQL and other types of files. We will need an online document to write such as Google Docs or OverLeaf which all our team members will be able to edit in real time.

Development Case:

As we have stated in the above section, we will be using markup languages like HTML, CSS, PHP, JavaScript, SQL, etc. using Atom text editor for programming and Google Docs or OverLeaf to write any documents which we may require. Our project's main functionality or purpose is to provide citizens, stakeholders, and businesses of the City of Windsor a database that is open sourced and can help them make strategic decisions for any of their projects. These open datasets will always be updated daily so that users can use them without having to worry about updating their projects with new datasets.