DataWin: Inception Report

Open Data Access Portal by Nidhi Patel & Niraj Patel

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Vision and Business Case

Residents of City of Windsor can use this for access open data for research, application development or to improve their interaction with City of Windsor's services and facilities. The goal is to make the access as easy and convenient as possible.

Use Cases

Use Case Section	**Comment**
Use Case Name	Visualize the dataset
Scope	Open Data Access Portal
Level	User goal
Primary Actor	System or the user
Stakeholder and Interests	The stakeholder is the user, and they want to graph or map of their chosen dataset to appear on the screen
Preconditions	• The User must be using the application to select the option to display/visualize the dataset • The user must select this option for this process to happen • User must have their chosen dataset open
Success Guarantee	The visual representation of the dataset will be displayed, and user will be able to see it on their screen
Main Success Scenario	1. User must be on the website 2. User will navigate/choose the dataset that they want to see 3. Depending on the type of data available they will have option for table/map/graph 4. User chooses one of the options 5. The chosen visual is displayed on the screen
Special Requirement	• UI or GUI application to interact with the application • Internet connection
Frequency of Occurrence	Occurs whenever the user requests for it
Extensions	Correct type of data may not be shown, size may vary depending on screen resolution
Technology and Data Variation List	Database to hold datasets GUI/Web UI to interact with the application
Miscellaneous	N/A

Use Case Section	**Comment**
Use Case Name	API for a dataset
Scope	Open Data Access Portal
Level	User goal
Primary Actor	User (Developer)

Stakeholder and Interests	The stakeholder is the user, and they want to request data use the API for their application
Preconditions	• The user must have a valid API key • Knowledge on how to use API and working with data
Success Guarantee	The API sends JSON data to the user as a response
Main Success Scenario	1. The developer will need to get the API key of their chosen dataset 2. Then in development the developer can use the API key
Special Requirement	• UI or GUI application to interact with the application • A valid file with the extension .txt
Frequency of Occurrence	API key is given once, but the key may be used multiple times
Extensions	API may not be ready for a particular dataset
Technology and Data Variation List	API key GUI/Web UI to interact with the application
Miscellaneous	N/A

Supplementary Requirement

- Datasets should be updated frequently with more recent data
- APIs should be designed ASAP for developers for their applications
- Provide interactive graphs/maps/tables

Glossary

- Filter: A searching tool which distinguish the datasets between the searched one and other
- API: Application programming interface is a computing interface which allows two applications to talk to each other
- Metadata: describes your dataset to others in a standardised way, such as tag, contact name, date created etc.

Risk List and Management Plan

- Business Risk: Since this is going to be an Access Dataset Portal, the datasets on the website need to be updated frequently. Delaying in updates to dataset will result us in having old dataset which is not good for us since developers will be using our API for their application.
- Technical Risk: Developers and Users who are already used to the old website of City of Windsor's may have trouble using the new website and may take time getting used to it.
- Resource Risk: Because this website will be another version of City of Windsor dataset one of the risks would be the cost which would be around $3000 to pay for server and developers for the website. Another risk would be the fee of monthly maintenance which

would be around $100/month. Another one would be developers would need to be designing APIs for other developers.

Phase Plan & Software Development Plan

The things below will need to be accomplished:

Tools: To set up the website and the backend the following technologies will be needed:

- Front-end: HTML5, CSS, JavaScript
- Back-end: Python-Flask
- Database: MySQL
- Data visualization: Matplotlib, Folium

People: Hire 2-3 developers to set up the website and manage APIs for the datasets.

Resource: DNS to host the new website

Development Case

Discipline	**Practice**	**Artifact**	**Incep.**	**Elab.**	**Const.**	**Trans.**
		Iteration →	I1	E1..En	C1..Cn	T1..T2
Business Modeling	Agile modeling req. workshop	Domain Model		s		
Requirements	Req. workshop vision box exercise dot voting	Use-Case Model	s	r		
		Vision	s	r		
		Supplementary Specification	s	r		
		Glossary	s	r		
Design	Agile modeling test-driven dev.	Design Model		s	r	
		SW Architecture Document		s		
		Data Model		s	r	

Show simple development case model.

Iteration Plan

First elaboration iteration, the open dataset access portal will have the front-end functionalities with an aim to have the data visualization set up as well. They will also have the ability to download the files if they want to.

Prototype

Dataset Catalogue

Search datasets

378 DATASETS FOUND

Order by: Last Refreshe

Residential Front Yard Parking

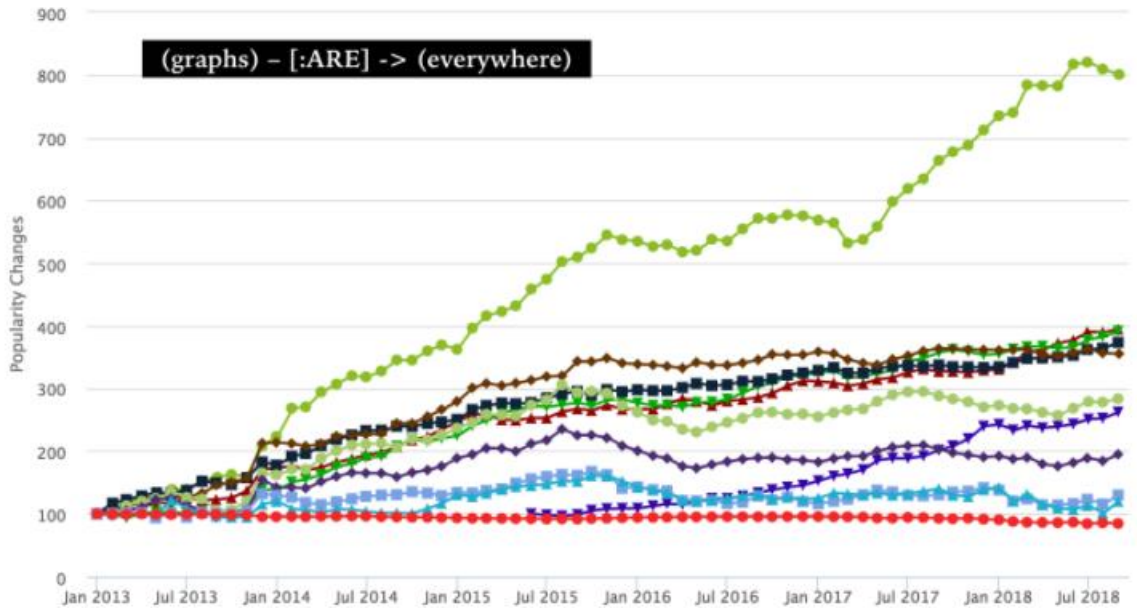
Legally licensed front yard parking pad locations

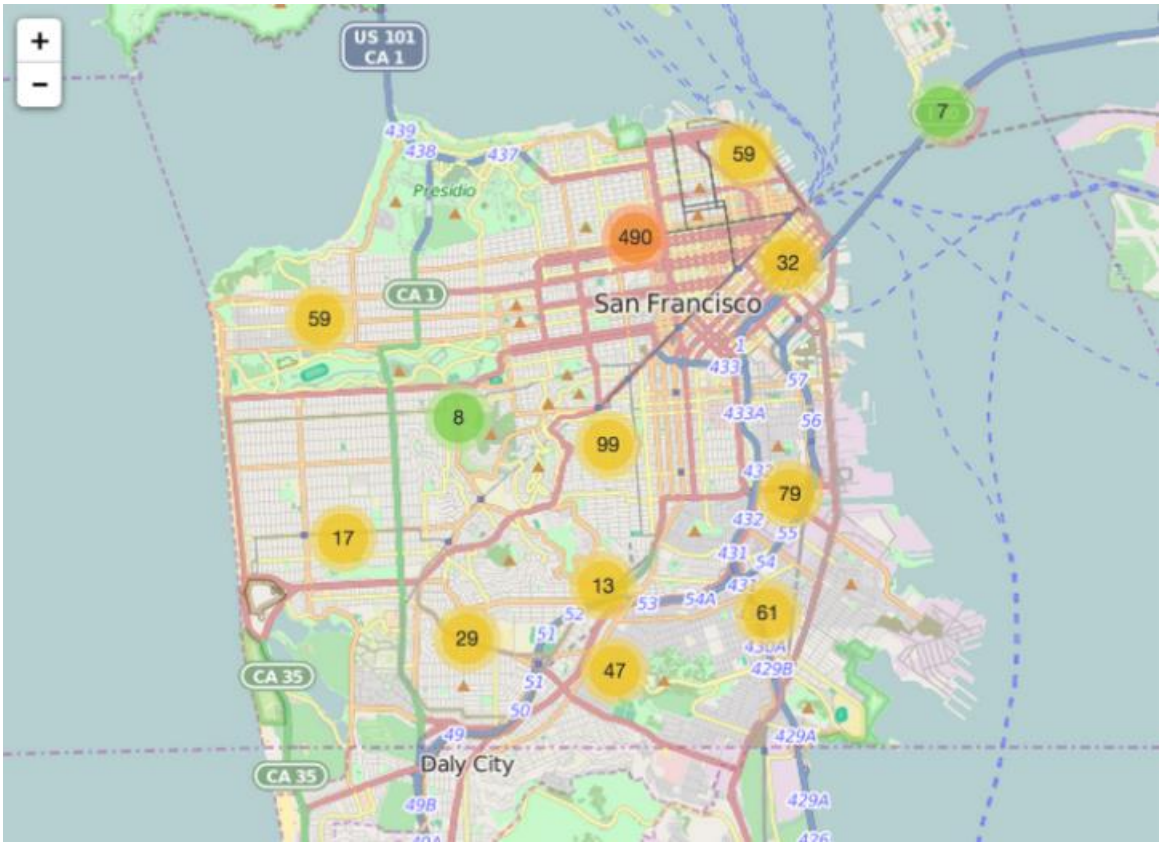
Refresh Rate	Last Refreshed	Publisher
Weekly	Oct 19, 2020	Transportation Services
Type	**Civic Issues**	**Formats**
Table	Mobility | Climate change	XML | JSON | CSV

Topics

Locations and mapping | Permits and licenses | Transportation

Example showing how the list of datasets will look like





Example of how data visualization will look like.