

How to Build a Production App and ETL in One Week(-ish)

King County – Bill Keller



King County

Department of Information Technology



FOOD SAFETY RATING

This business has received a food safety rating of:



Possible ratings:



For more information, text:

ለበለጠ መረጃ፣ አዋጅ የሥራ ማሳሰቢያ ይላኩ፡
更多資訊，請發送資訊至：

更多信息，請發送信息至：

더 자세한 정보는, 연락처:

Để bổ sung thêm thông tin chi tiết, hãy viết:

Wixii warbixin dheeraad ah, fariin u dir:

Para obtener más información,
envíe un mensaje de texto a:

text: **king food to 468311**

for official use

Business name: _____

Permit #: _____ Date: _____

Faisal Khan
Dr. Faisal Khan
Director of Public Health –
Seattle & King County

DCE:2210_11619w

www.KingCounty.gov/FoodSafetyRating

Overview

- Data
- Application



King County

Department of Information Technology

Need for the App



Photo credit: Reddit

Ever wonder where the Food Safety Ratings for King County food facilities come from?





King County's Department of Public Health has an interactive app you can explore to find more info.

Existing Application Deprecation

RESTAURANT NAME Search

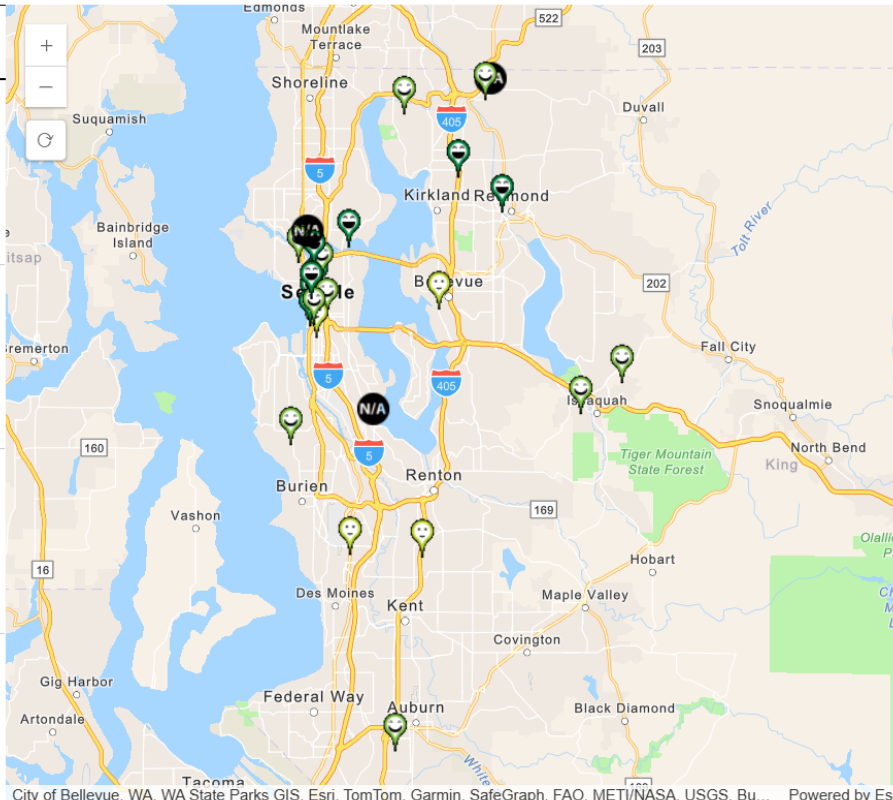
Filter by

Showing 1-25 of 12849

1st Union Store 7729 Rainier Ave S Seattle, WA 98118 (206) 721-1980	 RATING NOT AVAILABLE HISTORY
1 Hotel Seattle 2125 Terry Ave Seattle, WA 98121 (206) 264-8111	 EXCELLENT HISTORY
100 Lb Clam 1001 Fairview Ave N Unit 1700a Seattle, WA 98109 (206) 369-2978	 EXCELLENT HISTORY
2 States Kitchen Llc 19600 144th Ave Ne ...	 RATING NOT AVAILABLE

Showing 1-25 of 12849

Previous Next

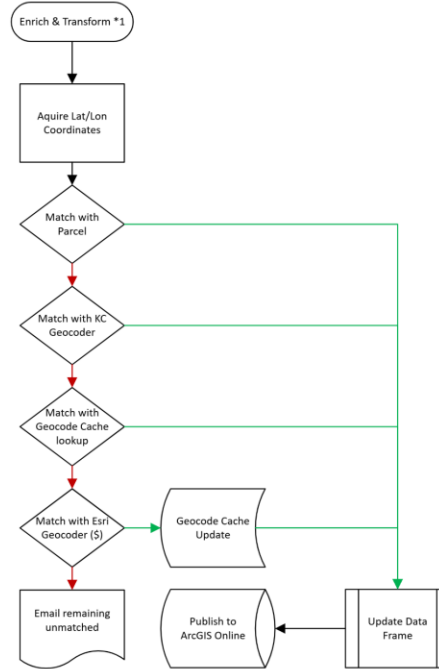
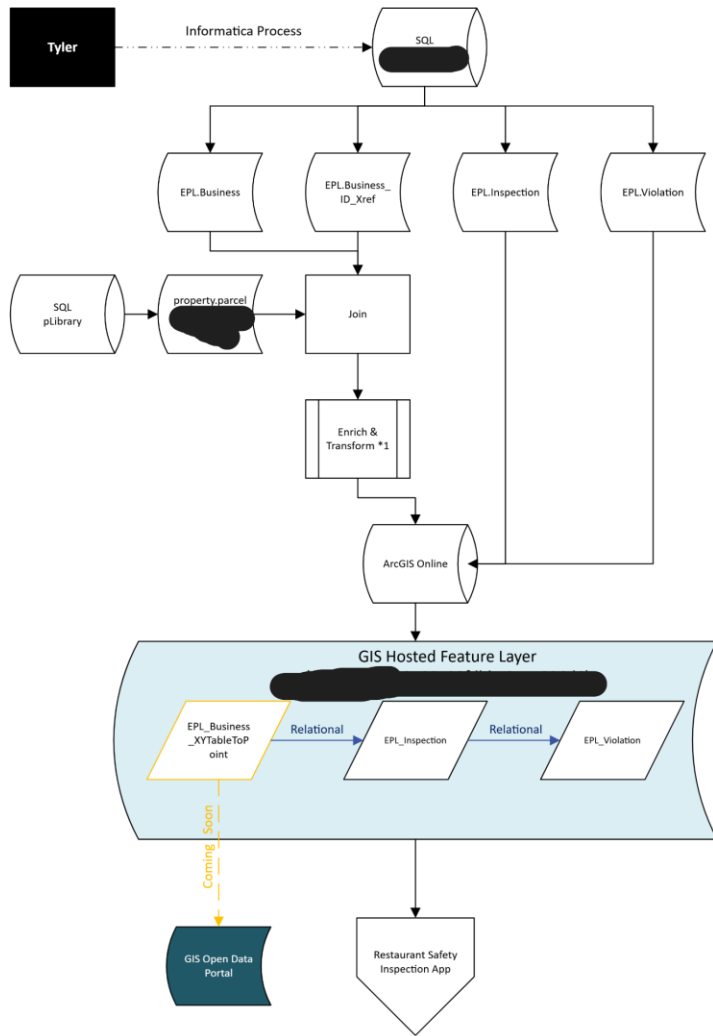


City of Bellevue, WA, WA State Parks GIS, Esri, TomTom, Garmin, SafeGraph, FAO, METI/NASA, USGS, Bu... Powered by Esri

- Change of data source
- Parcel based location
- Remove custom API
- Low-Code / No-Code
- More user friendly
- Add Accessibility

Data

Restaurant Safety Rating Application



The Plan

- Defined data needed
- Defined relationship
- Parcel to Address Point

How do we get there? – Options

Esri Data Pipelines

- Worked great
- \$\$\$\$
- 70 credits/hr (calc per min) for scheduled jobs.
 - (~25 credits/run) x (365 runs/year) = 9125 credits/yr
 - (9125 credits/yr) x (\$120/1000 credits) = **\$1095/year**

Informatica

- Can do some of the processing, but not spatial
- Another team responsible for workflow.

Esri AGOL Notebooks

- Not great for notifications, error handling
- Can't access outside data sources.

Python

- Most comprehensive solution.
- I'm not great at scripting and I have a tight deadline.

How do we get there? – Options

Pipelines

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ETL Requirements

Structure

Data Source

King County
standards

Error / event
logging

Fail
protection

Bad data
protection

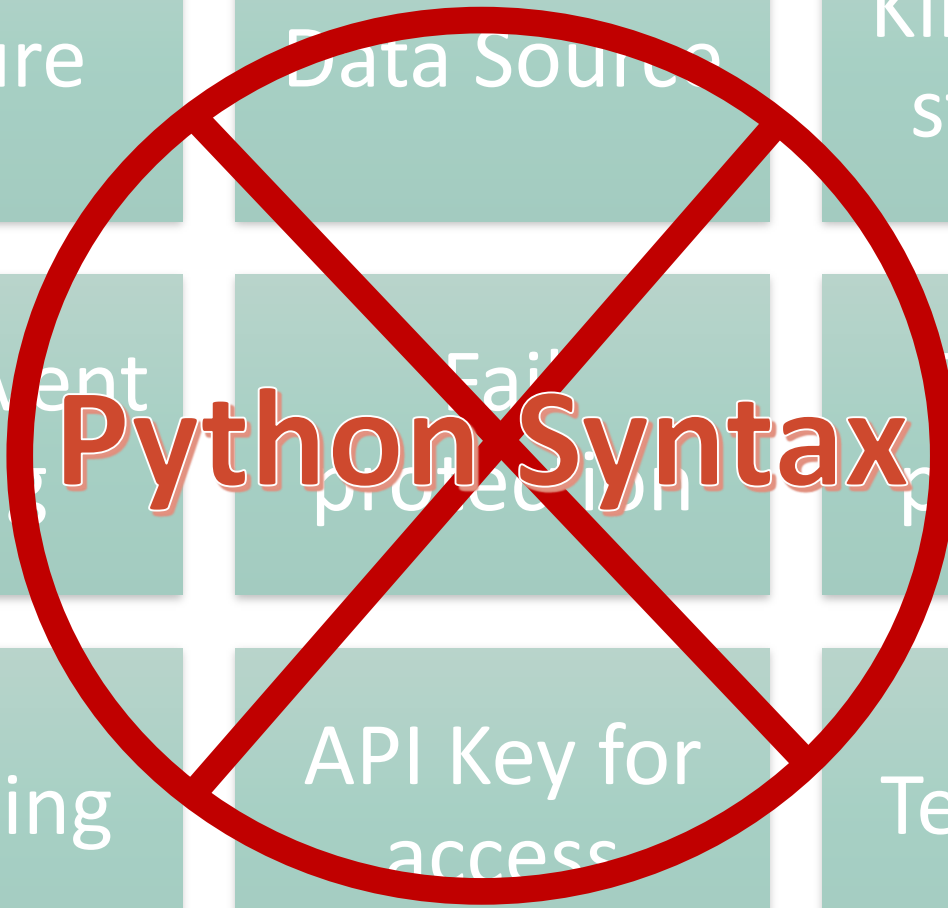
Geocoding

API Key for
access

Test Modes

ETL Requirements

Structure	Data Source	King County standards
Error / event logging	Fail protection	Bad data protection
Geocoding	API Key for access	Test Modes



Python Syntax

GitHub CoPilot



GitHub Copilot



AI can be great* at scripting tasks



Give to too much room for interpretation and it goes rogue.



Give it a document on which to base its code generation and you'll have much better success.



It is prone to mistakes: keep backups (repos)



First time Start to Finish

With GitHub CoPilot

- Different experience vs going to ChatGPT, Claude, CoPilot websites.
- Built for coding, has context

Azure DevOps Repo

Setting up your first repository

Requirements in demo: VSCode & Azure DevOps

The Setup – Azure DevOps Repo

- GIS-Center +
- Overview
- Summary
- Dashboards
- Wiki
- Boards
- Repos
- Pipelines
- Test Plans
- Artifacts

GIS-Center

Private Invite

About this project

Like 0

This is the GIS Center's Azure Dev Ops work plan site/project

Tags

GIS GIS Center KCIT work plan

Project stats

Period: Last 7 days

Boards

1 Work items created

15 Work items completed

Repos

0 Pull requests opened

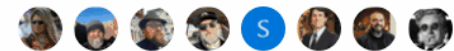
2 Commits by 1 authors

Pipelines

0% Builds succeeded

0% Deployments succeeded

Members 100+



The Setup – VSCode Integration

- GIS-Center +
- Overview
- Boards
- Repos
- Files
- Commits
- Pushes
- Branches
- Tags
- Pull requests
- Advanced Security
- Pipelines
- Test Plans
- Artifacts

WAGISA2026 is empty. Add some code!

Clone to your computer

HTTPS SSH OR **Clone in VS Code**

[Learn more about HTTPS](#)

[Generate Git Credentials](#)

ⓘ Having problems authenticating in Git? Be sure to get the latest version [Git for Windows](#) or our plugins for [IntelliJ](#), [Eclipse](#), [Android Studio](#) or [Windows command line](#).

Push an existing repository from command line

HTTPS SSH

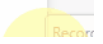
```
git remote add origin https://kingcounty.visualstudio.com/GIS-Center/_git/WAGISA2026
git push -u origin --all
```

Import a repository

[Import](#)

Initialize main branch with a README or gitignore

Add a README [Add a .gitignore: None](#) [Initialize](#)



The Setup – First Commit

Azure DevOps kingcounty / GIS-Center / Repos / Files / WAGISA2026

Search



The screenshot displays the Visual Studio Code editor interface. On the left, the 'EXPLORER' sidebar shows a file tree for 'WAGISA2026'. The main editor area is dark and contains a large, semi-transparent GitHub logo. Below the logo, there are keyboard shortcuts: 'Open Chat' (Ctrl + Alt + I), 'Show All Commands' (Ctrl + Shift + P), and 'Go to File' (Ctrl + P). On the right side, the 'CHAT' sidebar is open, showing a 'SESSIONS' list and a chat input area with a tip: 'Tip: Use /create-agent to scaffold a custom agent for your workflow.' The bottom status bar shows the current branch as 'main' and includes buttons for 'Add a README', 'Add a .gitignore: None', and 'Initialize'.

The Setup – Second commit

- GIS-Center +
- Overview
- Boards
- Repos
- Files
- Commits
- Pushes
- Branches
- Tags
- Pull requests
- Advanced Security
- Pipelines
- Test Plans
- Artifacts

- WAGISA2026
- M↓ _DataPlan.md
- PY kc_sendmail.py

main / Type to find a file or folder...

Files

Set up build Clone

Contents History

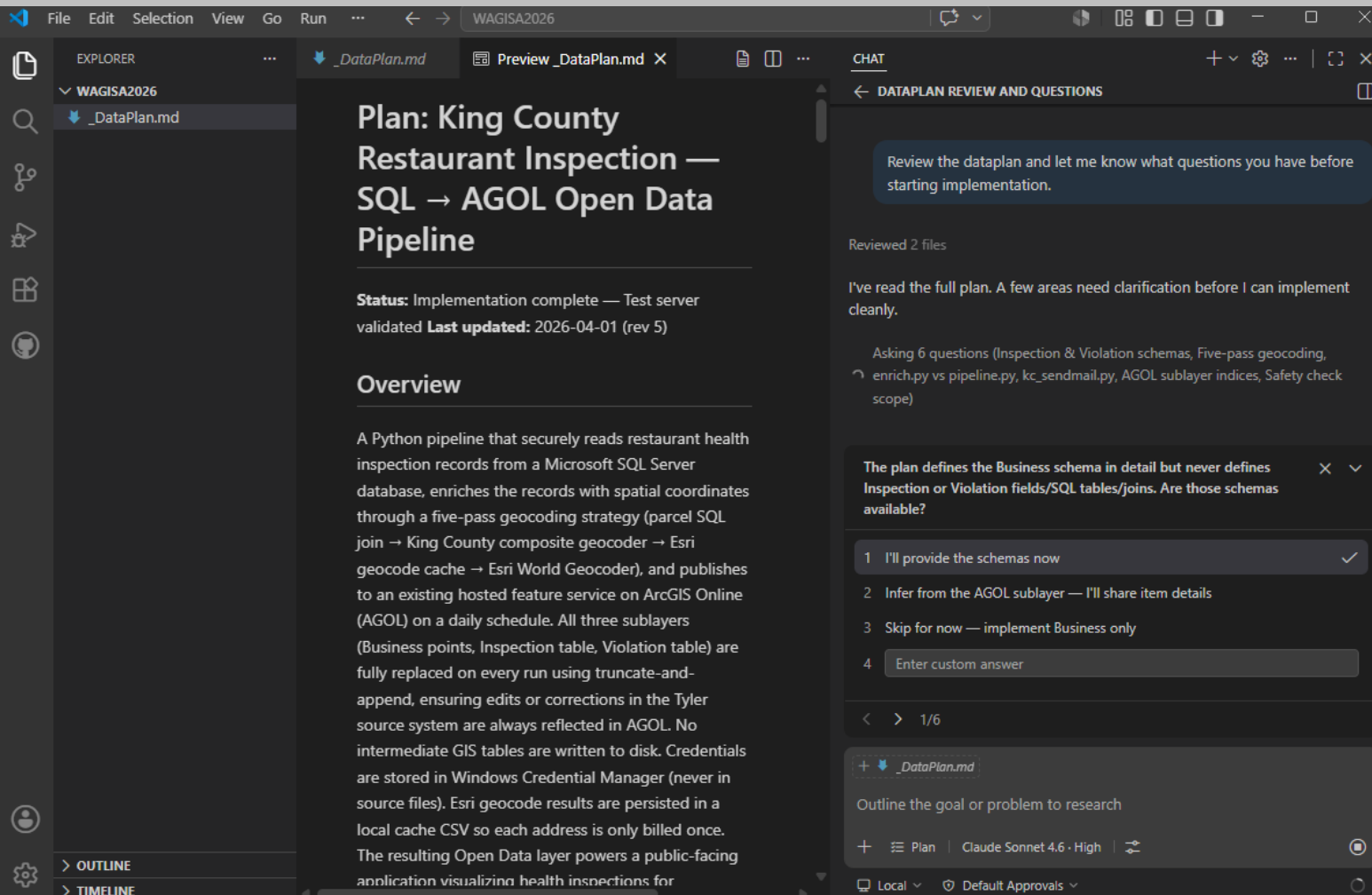
Name ↑	Last change	Commits
M↓ _DataPlan.md	2m ago	755a722a First Commit Bill Keller
PY kc_sendmail.py	2m ago	755a722a First Commit Bill Keller

The Setup – VS Code

GitHub CoPilot requires a subscription. Subscription costs range from free to very not free.

Modes of GitHub CoPilot

- Ask – similar to chat bots. Simple questions/answers
- **Plan – Research, clarify, identify shortcomings**
- Agent – Full autonomy.




[Copilot ask, edit, and agent modes: What they do and when to use them - The GitHub Blog](#)

The Setup – Establishing scope of work


Create an outline in Word with requirements*



Require a phased approach – don't do everything at once.



From the Word outline, create a `_DataPlan.md` document



Review the document, talk through revisions with GitHub CoPilot using Plan mode

Planning Collaboration

Revisions to plans
can be
conversational.

Plenty of time for
review before
implementation

The screenshot shows a code editor window with a dark theme. On the left, a document titled 'Plan: King County Restaurant Inspection — SQL → AGOL Open Data Pipeline' is open. The document content includes a status 'Implementation complete — Test server validated' and an overview of a Python pipeline. On the right, a chat window titled 'DATAPLAN REVIEW AND QUESTIONS' is active. The chat contains a message from the user: 'Review the dataplan and let me know what questions you have before starting implementation.' Below this, a response from the AI assistant is shown, starting with 'I've read the full plan. A few areas need clarification before I can implement cleanly.' A red box highlights a specific question in the chat: 'The plan defines the Business schema in detail but never defines Inspection or Violation fields/SQL tables/joins. Are those schemas available?'. Below the question, four numbered options are listed: 1. 'I'll provide the schemas now' (checked), 2. 'Infer from the AGOL sublayer — I'll share item details', 3. 'Skip for now — implement Business only', and 4. 'Enter custom answer'. The chat interface also shows a file list at the bottom with '_DataPlan.md' selected.

Data Design Includes

Structure

Data Source

King County
standards

Error / event
logging

Fail
protection

Bad data
protection

Geocoding

API Key for
access

Test Modes

Implementation



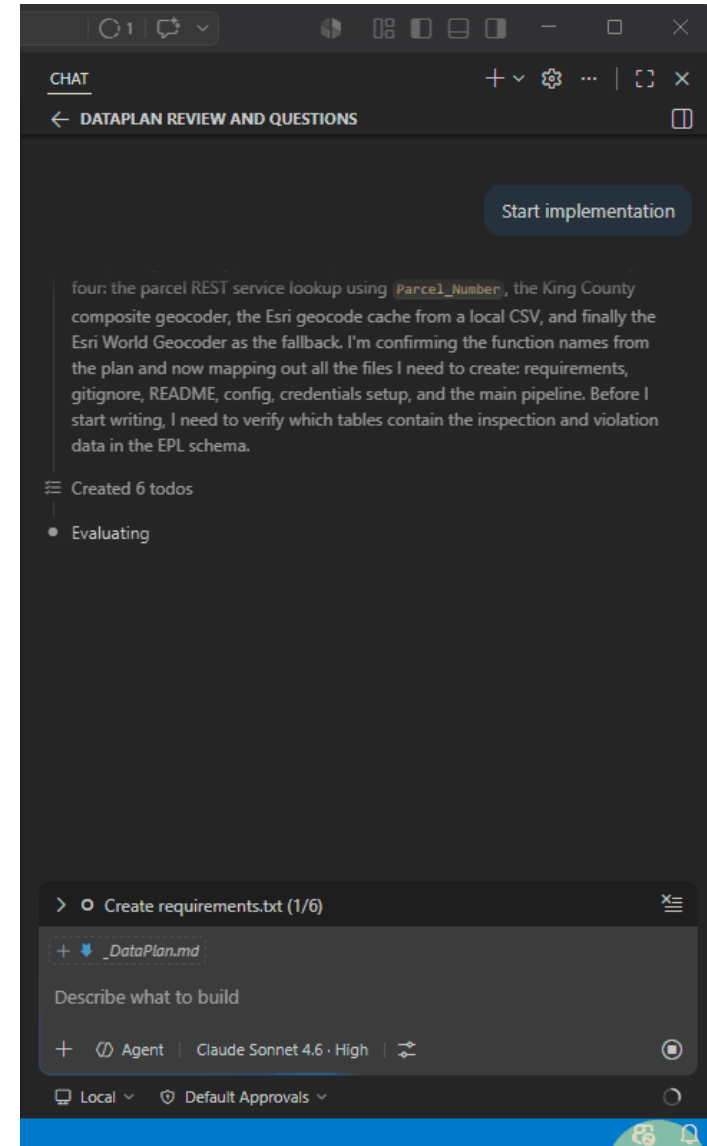
Planning took 2-3 hours of collaboration with GitHub CoPilot



Pleasantly surprised how easy it was



Implementation ~10-15 min to create scripts, and documentation



Implementation



Started in
create sc



Went sm



Full script
records to

Plan: King County Restaurant Inspection — SQL → AGOL Open Data Pipeline

Status: Implementation complete — Test server validated **Last updated:** 2026-04-01 (rev 5)

Overview

A Python pipeline that securely reads restaurant health inspection records from a Microsoft SQL Server database, enriches the records with spatial coordinates through a five-pass geocoding strategy (parcel SQL join → King County composite geocoder → Esri geocode cache → Esri World Geocoder), and publishes to an existing hosted feature service on ArcGIS Online (AGOL) on a daily schedule. All three sublayers (Business points, Inspection table, Violation table) are fully replaced on every run using truncate-and-append, ensuring edits or corrections in the Tyler source system are always reflected in AGOL. No intermediate GIS tables are written to disk. Credentials are stored in Windows Credential Manager (never in source files). Esri geocode results are persisted in a local cache CSV so each address is only billed once. The resulting Open Data layer powers a public-facing application visualizing health inspections for

CHAT

DATAPLAN REVIEW AND QUESTIONS

1. Fill in the placeholder values in `pipeline_config.py` (`SQL_SERVER`, `SQL_DATABASE`, `AGOL_URL`, email settings)
2. Run `python setup_credentials.py` → update the username constants it prints
3. Run `python pipeline.py` → review Checkpoint 1 log output to capture Inspection/Violation schemas, then update `QUERY_INSPECTION`, `QUERY_VIOLATION`, and the date casts in `transform()` Step D

Todos (6/6)

- ✓ Create requirements.txt
- ✓ Create .gitignore
- ✓ Create README.md
- ✓ Create pipeline_config.py
- ✓ Create setup_credentials.py
- ✓ Create pipeline.py

6 files changed +1109 -6

↓ README.md	+114	-1
◇ .gitignore	+21	-1
🔌 pipeline_config.py	+88	-1
🔌 pipeline.py	+806	-1
📄 requirements.txt	+8	-1
🔌 setup_credentials.py	+72	-1

+ ↓ `.DataPlan.md`

Describe what to build

+ Agent | Claude Sonnet 4.6 · High



Code Review

Review of code is still vital.

Reviewers found improvements such as:

- Addition of test suites
- API keys instead of built in accounts
- Different publishing method bringing script run time from 50 to 4 minutes.

AI implemented the changes with my revision guidance.



King County

Department of Information Technology

Application Development

We have our data, let's build the app



King County

Department of Information Technology



App Development

Requirements

- Low-Code / No-Code
- Parcel based location
- List filters with extent
- More user friendly
- A11Y (Accessibility)

App Development - Options

Instant Apps

- Lacked capabilities
- Best accessibility

Experience Builder

- Potential limitations
- Meets criteria

Experience Builder Dev Edition

- Additional support
- Meets criteria

Custom App

- Cost prohibitive. High maintenance cost.
- Time constraints

App Development - Options

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Custom App

- Cost prohibitive. High maintenance cost.
- Time constraints

Tour of Completed App

King County Food Inspections and Safety Rating

Filter by Rating

- Excellent Good Okay
- Needs to Improve Rating not available

#807 TUTTA BELLA



Excellent

2746 NE 45TH ST
SEATTLE, WA 98105

[HISTORY](#)

+MAS CAFE



Excellent

1906 N 34TH ST
SEATTLE, WA 98103

[HISTORY](#)

1 HOTEL SEATTLE



Excellent

2125 TERRY AVE
SEATTLE, WA 98121

[HISTORY](#)

100 LB CLAM



Excellent

1001 FAIRVIEW AVE N Unit 1700A
SEATTLE, WA 98109

[HISTORY](#)

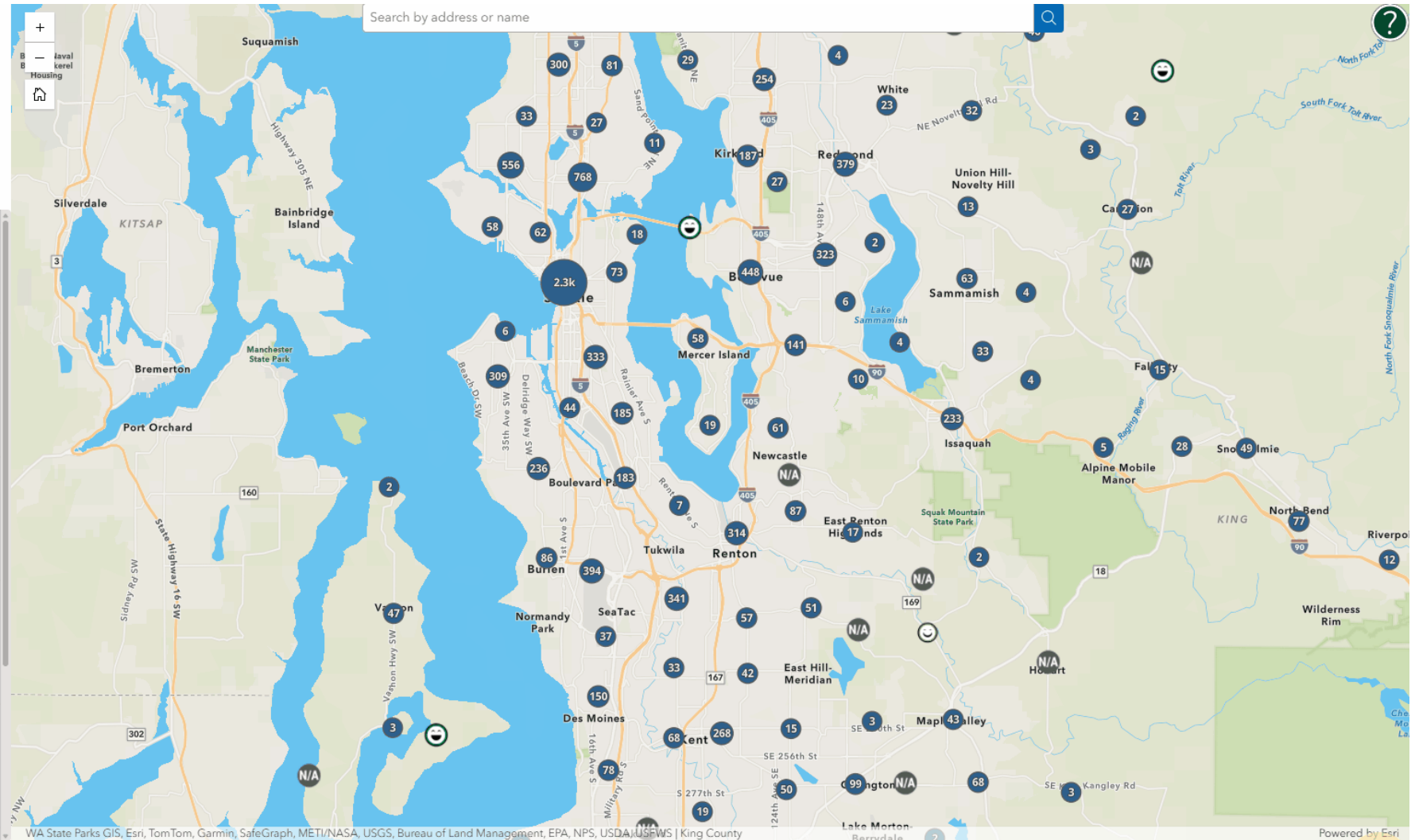
1000 SPIRITS



Excellent

1225 1ST AVE
SEATTLE, WA 98101

[HISTORY](#)



Tour of Completed App

Looks simple right?

Let's break it down





App Development - Filtering

King County Food Inspections and Safety Rating

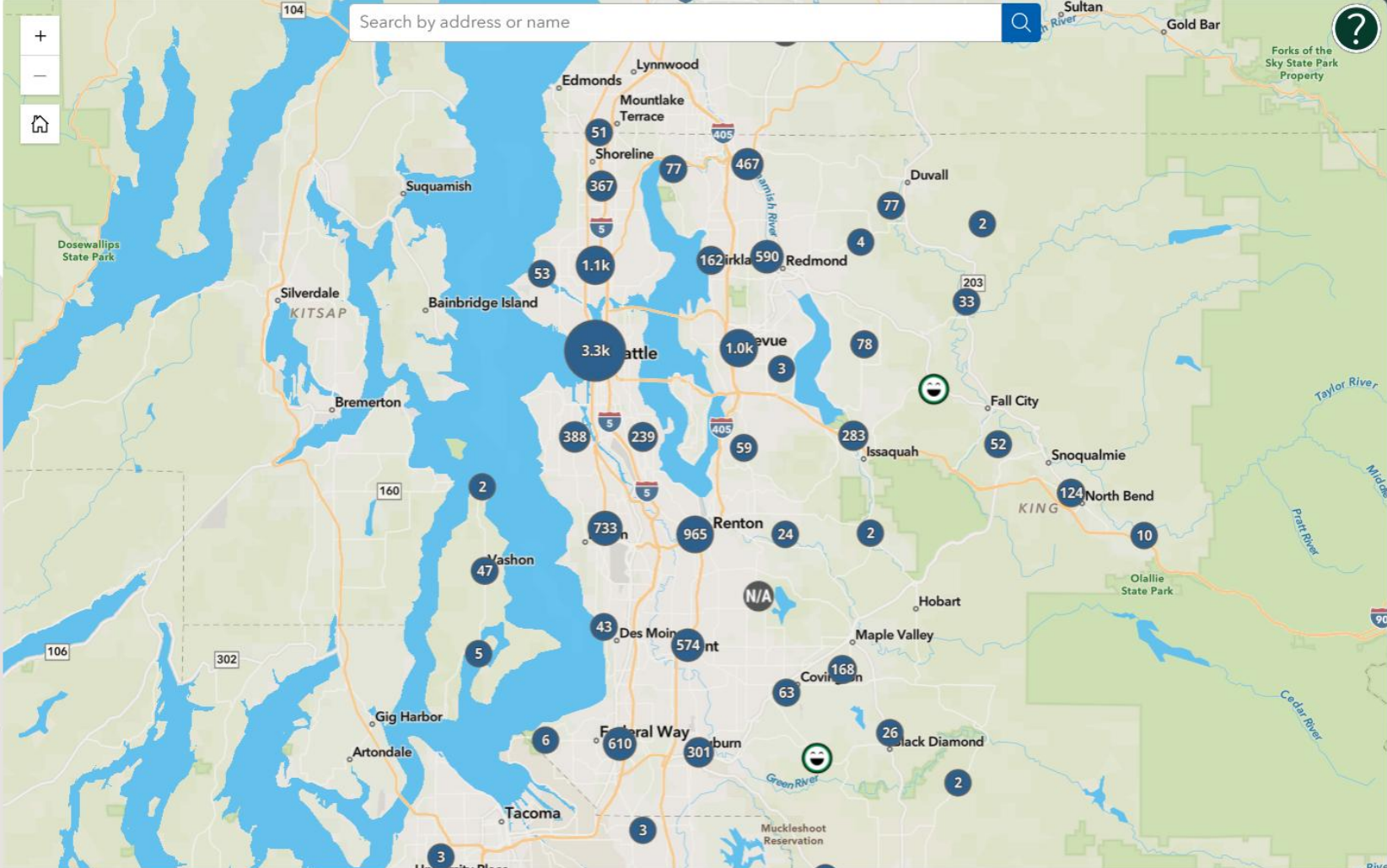
Filter by Rating

Excellent Good Okay

Needs to Improve Rating not available

#807 TUTTA BELLA	
2746 NE 45TH ST SEATTLE, WA 98105	HISTORY
+MAS CAFE	
1906 N 34TH ST SEATTLE, WA 98103	HISTORY
1 HOTEL SEATTLE	
2125 TERRY AVE SEATTLE, WA 98121	HISTORY
100 LB CLAM	
1001 FAIRVIEW AVE N Unit 1700A	

Search by address or name



WA State Parks GIS, Esri, TomTom, Garmin, SafeGraph, FAO; METI/NASA; USGS, Bureau of Land Management, EPA, NPS, USFWS | King County
Powered by Esri

App Development - Filtering

King County Food Inspections and Safety Rating

Filter by Rating

Excellent Good Okay

Needs to Improve Rating not available

Filters map and list

#807 TOTTABELLA
2746 NE 45TH ST
SEATTLE, WA 98105
EXCELLENT
[HISTORY](#)

+MAS CAFE
1906 N 34TH ST
SEATTLE, WA 98103
EXCELLENT
[HISTORY](#)

1 HOTEL SEATTLE
2125 TERRY AVE
SEATTLE, WA 98121
EXCELLENT
[HISTORY](#)

100 LB CLAM
1001 FAIRVIEW AVE N Unit 1700A
EXCELLENT

WA State Parks GIS, Esri, TomTom, Garmin, SafeGraph, FAO; METI/NASA; USGS, Bureau of Land Management, EPA, NPS, USFWS | King County
Powered by Esri


App Development – Filtering List

King County Food Inspections and Safety Rating


Filter by Rating

Excellent Good Okay


Needs to Improve Rating not available

ATLISSIAN  Excellent

10900 NE 4TH ST STE 100
BELLEVUE, WA 98004 [HISTORY](#)

CAFE AN CLAIR  Excellent

10900 NE 4TH ST STE 260
Bellevue, WA 98004 [HISTORY](#)

SUSHI KUDASAI  Good

10900 NE 4TH ST 270
BELLEVUE, WA 98004 [HISTORY](#)

Search by address or name

Filters list on extent change

Skyline Tower

3

NE 4th St

110th Ave NE

110th Ave NE

NE 4th St

Esri Community Maps Contributors, WSU Facilities Services GIS, City of Bellevue, WA, WA State Parks GIS, © OpenStreetMap, Microsoft, Esri, TomTom, Garmin, SafeGraph, GeoTechnolo... Powered by Esri


App Development - Filtering

King County Food Inspections and Safety Rating

Filter by Rating

Excellent Good Okay

Needs to Improve Rating not available




MEMBERS CLUB @ ALDARRA  Excellent

29125 SE DUTHIE HILL RD
SAMMAMISH, WA 98075

[HISTORY](#)

Filters list to selected feature

Search by address or name

MEMBERS CLUB @ ALDARRA   

Select feature on map

Zoom to

Address: 29125 SE DUTHIE HILL RD SAMMAMISH, WA 98075
Rating: Excellent

Click the History link from the list for more information

WA State Parks GIS, Esri, TomTom, Garmin, SafeGraph, FAO, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USFWS | King County
Powered by Esri


App Development - Filtering

King County Food Inspections and Safety Rating

Filter by Rating

Excellent Good Okay

Needs to Improve Rating not available

MEMBERS CLUB @ ALDARRA  Excellent

29125 SE DUTHIE HILL RD
SAMMAMISH, WA 98075

[HISTORY](#)

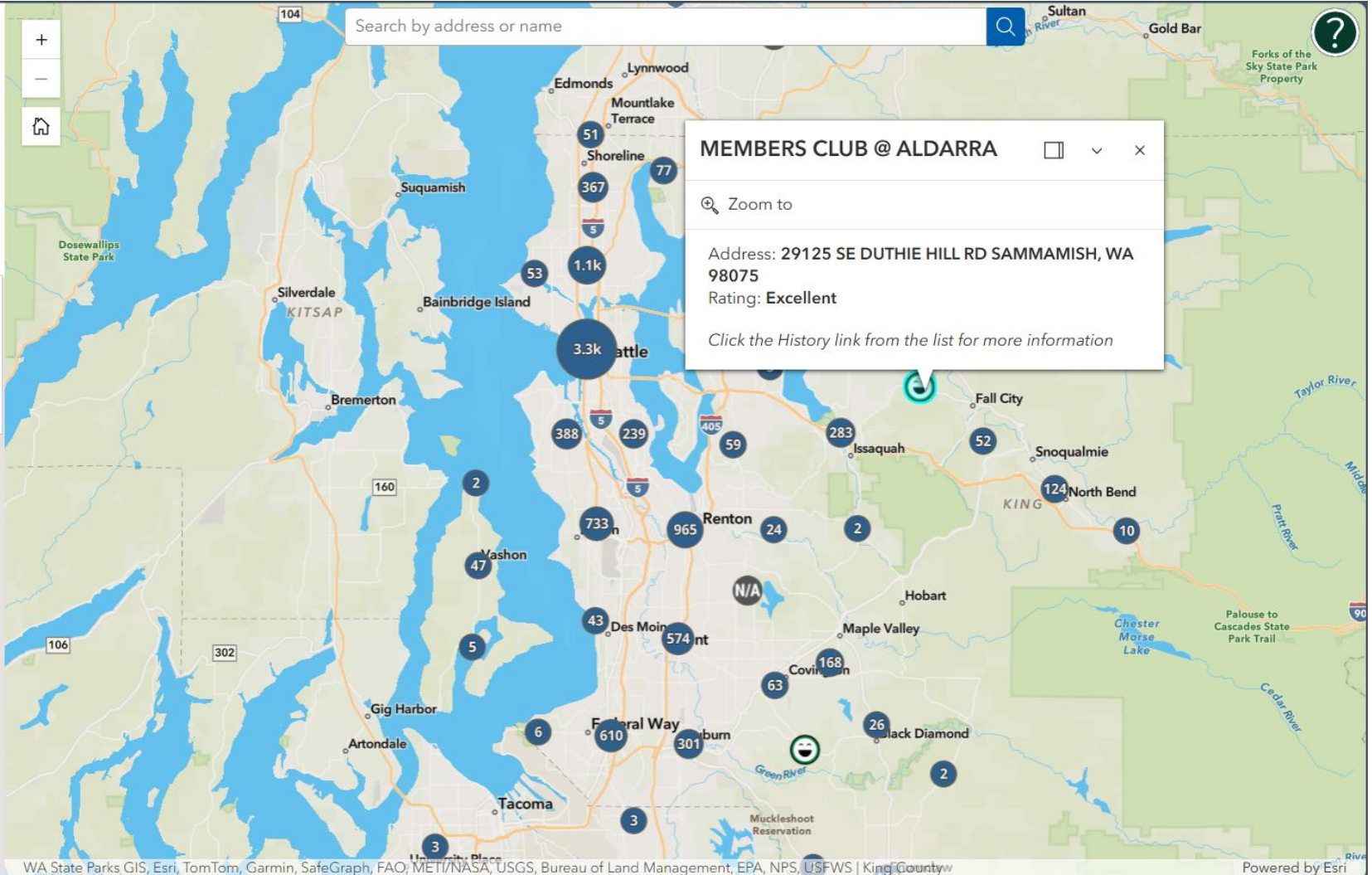
Search by address or name

MEMBERS CLUB @ ALDARRA

Zoom to

Address: 29125 SE DUTHIE HILL RD SAMMAMISH, WA 98075
Rating: Excellent

Click the History link from the list for more information



WA State Parks GIS, Esri, TomTom, Garmin, SafeGraph, FAO, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USFWS | King County
Powered by Esri

Different Data Source vs map

App Development - Search

King County Food Inspections and Safety Rating

Filter by Rating

Excellent Good Okay

Needs to Improve Rating not available

MEMBERS CLUB @ ALDARRA

Excellent

29125 SE DUTHIE HILL RD
SAMMAMISH, WA 98075

[HISTORY](#)

Needs to search regardless of active filter

MEMBERS CLUB @ ALDARRA

Zoom to

Address: 29125 SE DUTHIE HILL RD SAMMAMISH, WA 98075

Rating: Excellent

Click the History link from the list for more information

WA State Parks GIS, Esri, TomTom, Garmin, SafeGraph, FAO, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USFWS | King Countyw Powered by Esri

App Development - Search

Searches EPL Default

Search Data Action on search pans, zooms selects and filters the other data/map targets

Data source from feature (NOT webmap), but a "list" view

Data source from webmap

King County Food Inspections and Safety Rating

Filter by Rating

Excellent Good Okay

Needs to Improve Rating not available

MEMBERS CLUB @ ALDARRA

29125 SE DUTHIE HILL RD
SAMMAMISH, WA 98075

Restaurant List

Content Style Action

Select another template or customize your list design

Data

- EPL_Business_XYTab... X
- List
- ✓ List
- Default
- Selected features
- + Create a view

Zoom to

Address: 29125 SE DUTHIE HILL RD SAMMAMISH, WA 98075

Rating: Excellent

Click the History link from the list for more information

WA State Parks GIS, Esri, TomTom, Garmin, SafeGraph, FAO, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USFWS | King Countyw Powered by Esri

App Development – Data Sources

Webmap Data

- Displays on map
- Interacted with by
 - Filter widget
 - Search

Feature Layer

Two Views

- List
 - Filters with map extent
 - Filters on map feature select
 - Filters with filter widget
 - Displays as the list of features
 - Used in Inspection window
- Default
 - Search bar source





App Development - Cluster

King County Food Inspections and Safety Rating

Filter by Rating

Excellent Good Okay

Needs to Improve Rating not available

#807 TUTTA BELLA	
2746 NE 45TH ST SEATTLE, WA 98105	HISTORY
+MAS CAFE	
1906 N 34TH ST SEATTLE, WA 98103	HISTORY
1 HOTEL SEATTLE	
2125 TERRY AVE SEATTLE, WA 98121	HISTORY
100 LB CLAM	



Search by address or name

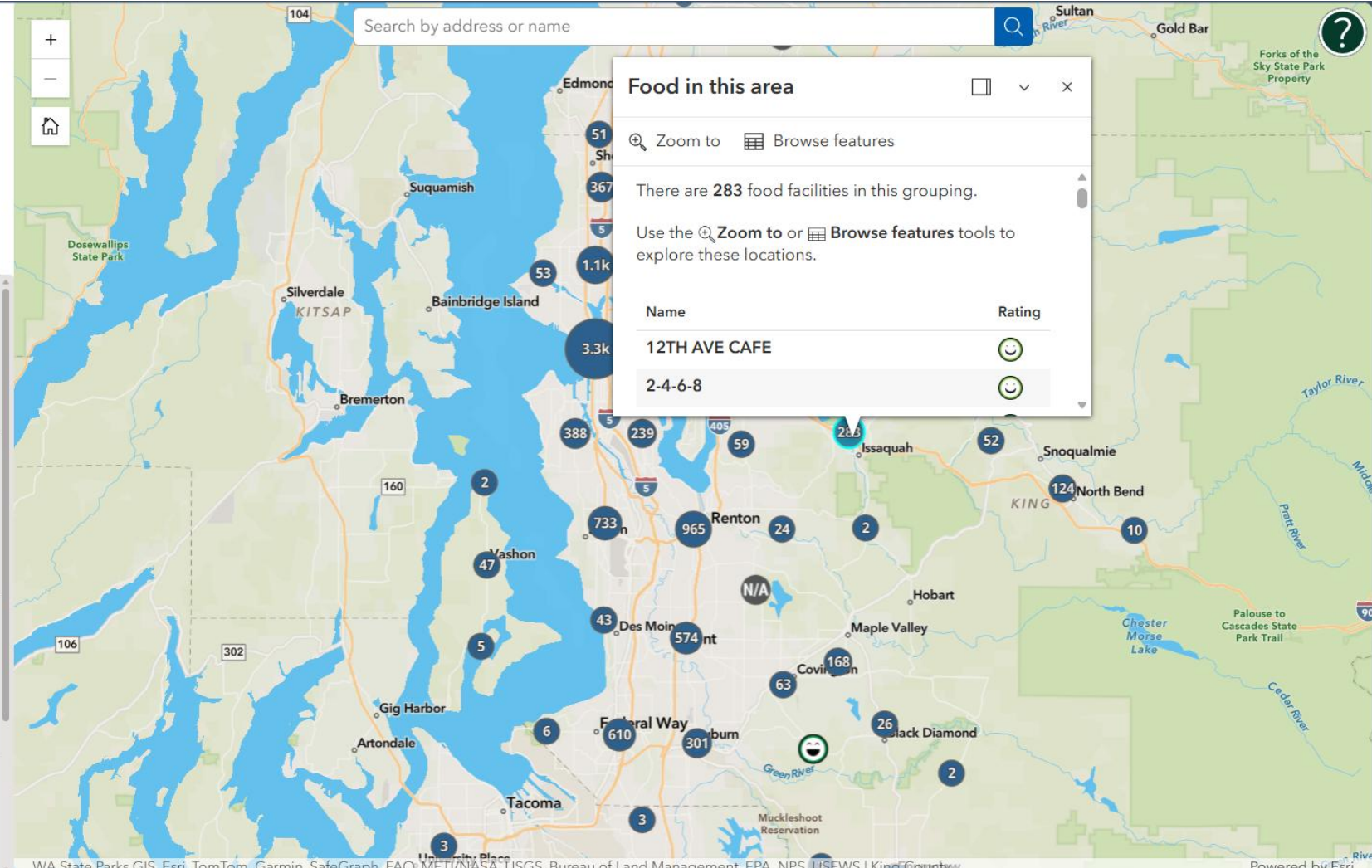
Food in this area

Zoom to Browse features

There are 283 food facilities in this grouping.

Use the Zoom to or Browse features tools to explore these locations.

Name	Rating
12TH AVE CAFE	
2-4-6-8	



WA State Parks GIS, Esri, TomTom, Garmin, SafeGraph, FAO, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USFWS | King County Powered by Esri

App Development - Cluster

King County Food Inspections and Safety Rating

Filter by Rating

Excellent Good Okay Needs to Improve Rating not

#807 TUTTA BELLA

2746 NE 45TH ST SEATTLE, WA 98105

+MAS CAFE

1906 N 34TH ST SEATTLE, WA 98103

1 HOTEL SEATTLE

2125 TERRY AVE SEATTLE, WA 98121

100 LB CLAM

1001 FAIRVIEW AVE N 11th 1700A

Search by address or name

Food in this area

Zoom to Browse features

There are 283 food facilities in this grouping.

Use the Zoom to or Browse features tools to explore these locations.

Name	Rating
12TH AVE CAFE	😊
2-4-6-8	😊

Food in this area

Zoom to Browse features

- AFC ZENSHI @ FRED MEYER #658 😊
- AFC ZENSHI @ SAFEWAY #1624 😊
- AFC ZENSHI @ SAFEWAY #3006 😊
- AGAVE 😊
- AJI SUSHI & GRILL 😐
- ARCO 😊
- ARCO AM/PM 😊

WA State Parks GIS, Esri, TomTom, Garmin, SafeGraph, FAO, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USFWS | King County Powered by Esri

App Development - Cluster

King County Food Inspections and Safety Rating

Filter by Rating

Excellent Good Okay Needs to Improve Rating not

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Search by address or name

Food in this area

Zoom to Browse features

There are 283 food facilities in this grouping.

Use the Zoom to or Browse features tools to explore these locations.

Name	Rating
12TH AVE CAFE	😊
2-4-6-8	😊

Food in this area

Zoom to **Aggregate features**

- AFC ZENSHI @ FRED MEYER #658 😊
- AFC ZENSHI @ SAFEWAY #1624 😊
- AFC ZENSHI @ SAFEWAY #3006 😊
- AGAVE 😊
- AJI SUSHI & GRILL 😐
- ARCO 😊
- ARCO AM/PM 😊

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App Development – Cluster Limitations

Clusters \neq features

- DO NOT trigger actions

Cluster popups

- Cannot interact with list or other app elements
- URL with the same root gets ignored







App Development – Diagrams (time pending)

King County Food Inspections and Safety Rating

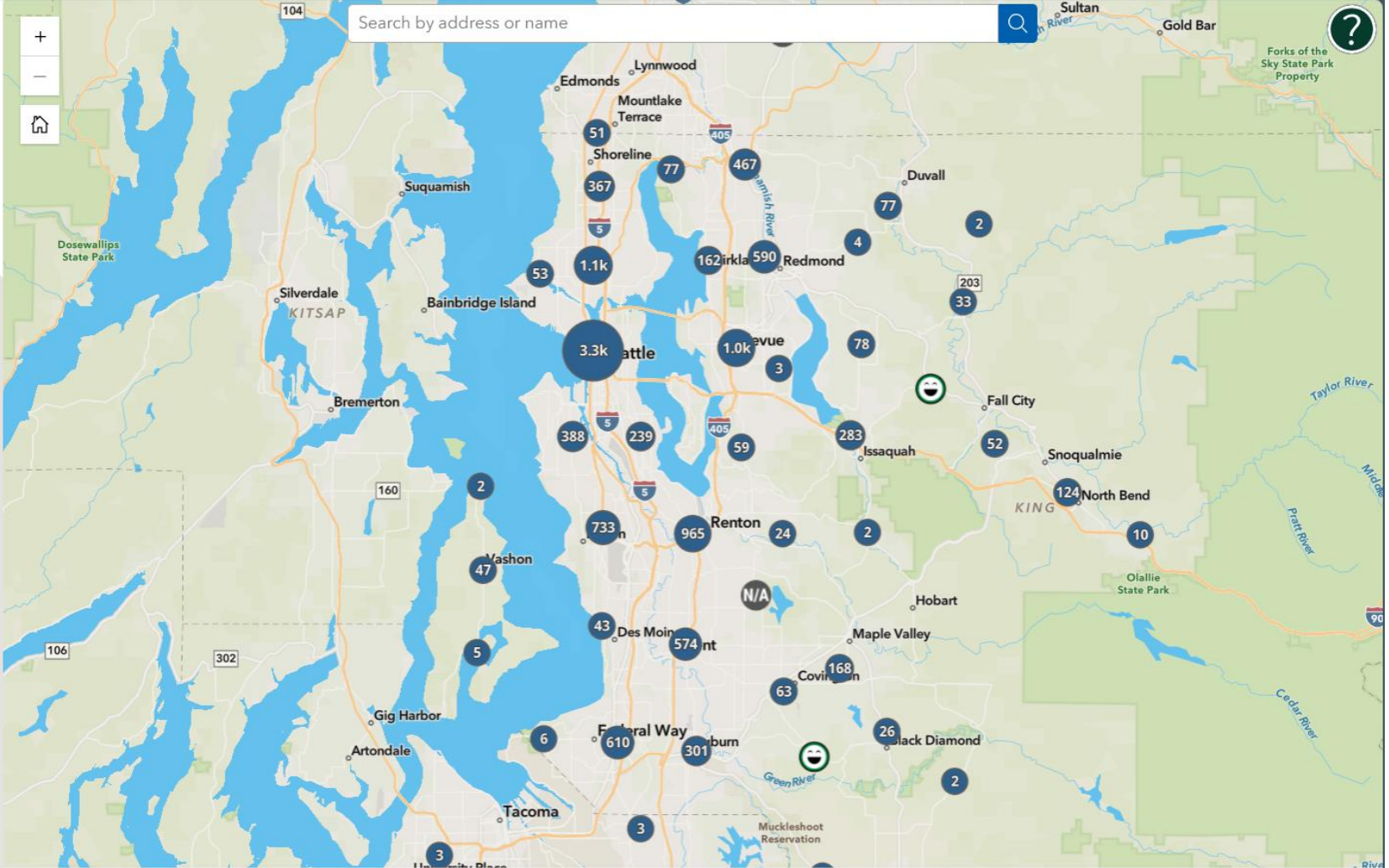
Filter by Rating

Excellent Good Okay

Needs to Improve Rating not available

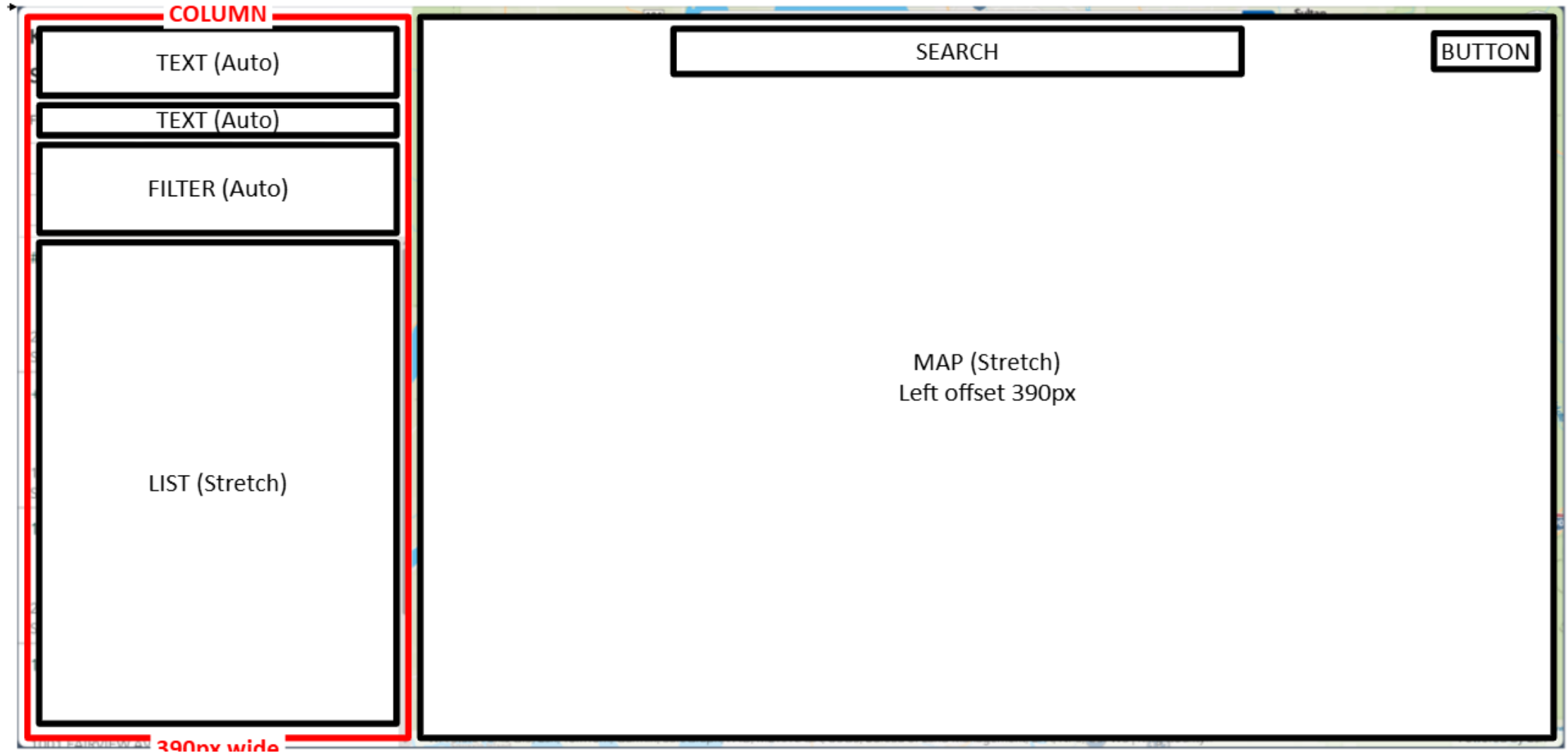
#807 TUTTA BELLA	
2746 NE 45TH ST SEATTLE, WA 98105	HISTORY
+MAS CAFE	
1906 N 34TH ST SEATTLE, WA 98103	HISTORY
1 HOTEL SEATTLE	
2125 TERRY AVE SEATTLE, WA 98121	HISTORY
100 LB CLAM	
1001 FAIRVIEW AVE N Unit 1700A	

Search by address or name

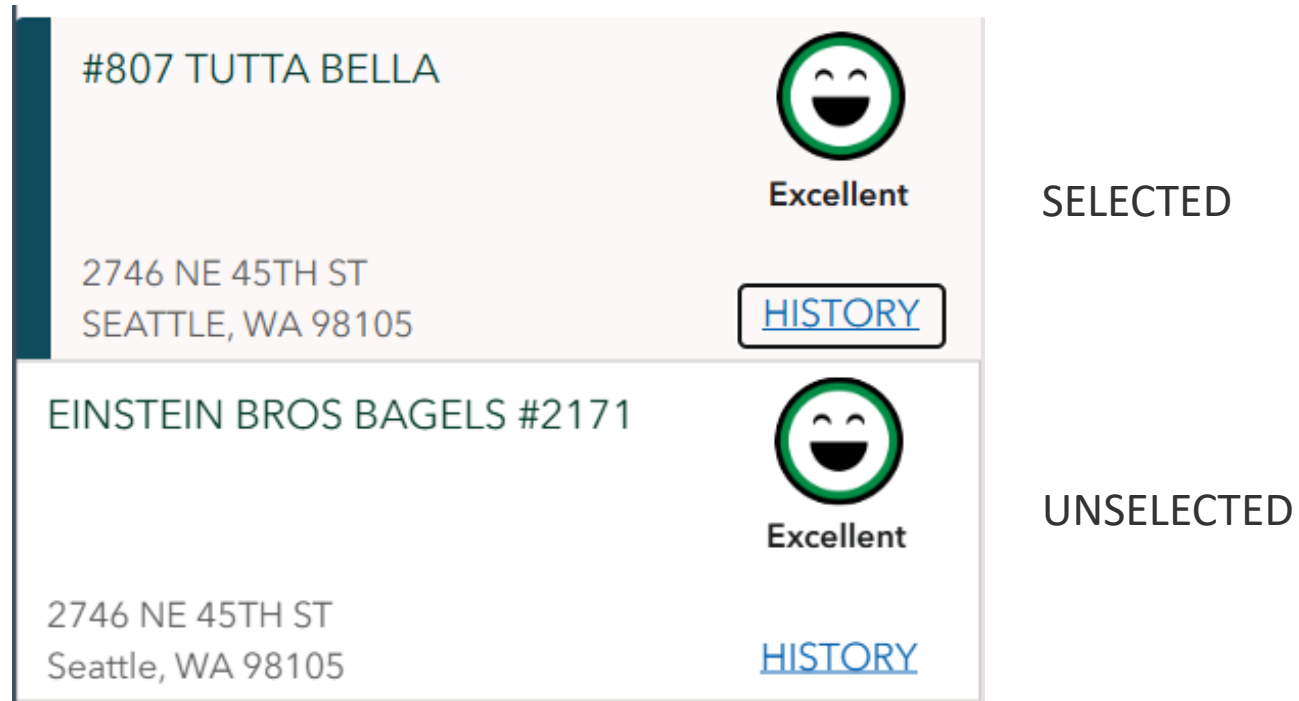


WA State Parks GIS, Esri, TomTom, Garmin, SafeGraph, FAO, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USFWS | King County
Powered by Esri

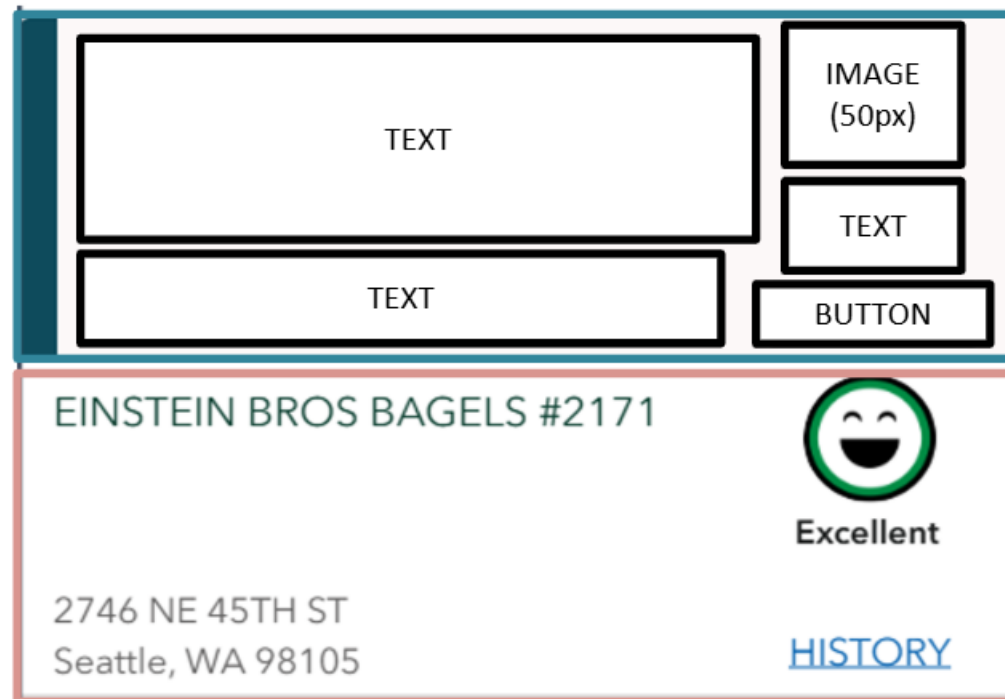
App Development - Diagram



App Development - Diagram



App Development - Diagram



List cell sizes are static :(

App Development - Diagram

King County Food Inspections and Safety Rating

Search by address or name

Filter by Rating

Excellent Good Okay Needs to Improve Rating not available

#807 TUTTA BELLA


2746 NE 45TH ST SEATTLE, WA 98105 Phone: (206) 722-6400

Seating 0-12 - Risk Category III

[Directions](#)

The rating is based on the average of last four routine inspections

[Learn more about the rating system](#)



Excellent

A rating of "Not Available" means the food facility is a school, nonprofit, or has not yet had an inspection.

Date	Results	Score	
8/15/25	Satisfactory (0 pts)	0	
3/24/25	Unsatisfactory (5 pts)	5	Violations
8/2/24	Unsatisfactory (15 pts)	15	Violations
2/29/24	Satisfactory (10 pts)	10	Violations
3/2/23	Unsatisfactory (20 pts)	20	Violations

Excellent

Powered by Esri

App Development - Diagram

King County Food Inspections and Permits

Search by address or name

Safety Rating

Filter by Rating

Excellent Good Okay Needs to improve Rating not available

#807 TUTTA BELLA

2746 NE 45TH ST SEATTLE, WA 98105

EINSTEIN BROS BAGELS #2171

2746 NE 45TH ST Seattle, WA 98105

QFC #807 Q20 PUB- UNIVERSITY VILLAGE (WINE & BEER BAR)

2746 NE 45th ST SEATTLE, WA 98105

QFC #807-UNIVERSITY VILLAGE BAKERY/ESPRESSO

2746 NE 45TH ST

8/15/25 Satisfactory (0 pts) 0

8/2/24 Unsatisfactory (15 pts) LIST 15 [Violations](#)

2/29/24 Satisfactory (10 pts) 10 [Violations](#)

3/2/23 Unsatisfactory (20 pts) 20 [Violations](#)

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Column
Row
Flow Row
Fixed Panel

App Development - Diagram

King County Food Inspections and Search by address or name

Safety Rating

Filter by Rating

Excellent Good Okay Needs to Improve Rating not available

#807 TUTTA BELLA

2746 NE 45TH ST SEATTLE, WA 98105 Phone: (206) 722-6400

Seating 0-12 - Risk Category III

[Directions](#)

The rating is based on the average of last four routine inspections

[Learn more about the rating system](#)

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2/29/24	Satisfactory (10 pts)	10	Violations
3/2/23	Unsatisfactory (20 pts)	20	Violations

Insp Result List

Content Style Action

Arrangement

States

Set link

Background

Fill

Image Browse

Position Fill

Border

Border radius

Dynamic style

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App Development - Diagram

King County Food Inspections and Safety Rating

Search by address or name

#807 TUTTA BELLA

2746 NE 45TH ST
SEATTLE, WA 98105
Phone: (206) 722-6400

Seating 0-12 - Risk Category

[Directions](#)

The rating is based on the average of all inspections

[Learn more about the rating](#)

Date	Results	Score	
8/15/25	Satisfactory (0 pts)	0	
3/24/25	Unsatisfactory (5 pts)	5	Violations
8/2/24	Unsatisfactory (15 pts)	15	Violations
2/29/24	Satisfactory (10 pts)	10	Violations
3/2/23	Unsatisfactory (20 pts)	20	Violations

```
return {  
  value: $feature.Inspection_Score,  
  text: { color: If($feature.Inspection_Score ==  
0, "transparent", "#0056f5") }  
};
```

Content Style Action

Text

Violations

Icon Select icon

Advanced

Default Hover

Text

16 px

Background

Border

Border radius

Shadow

Dynamic style

Accessibility settings

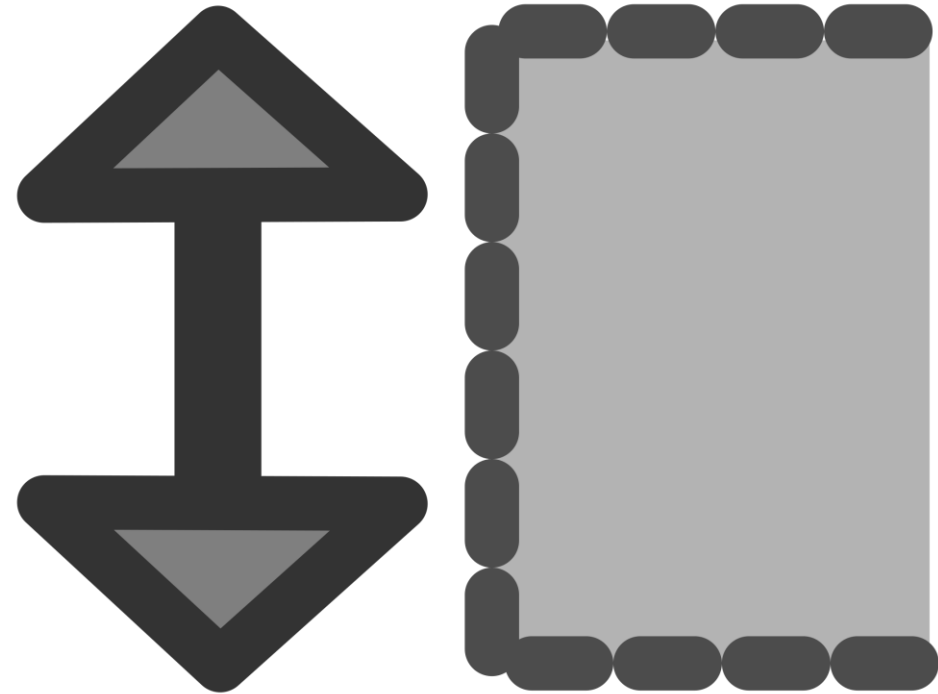
Esri Community Maps Contributors, University of Washington, City of Seattle, WA State Parks GIS, © OpenStreetMap, Microsoft, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc. ... Powered by Esri

App Development - ExB

Scalability

- Use columns and rows when possible
- Utilize auto & stretch sizing

Set pixel values vs %

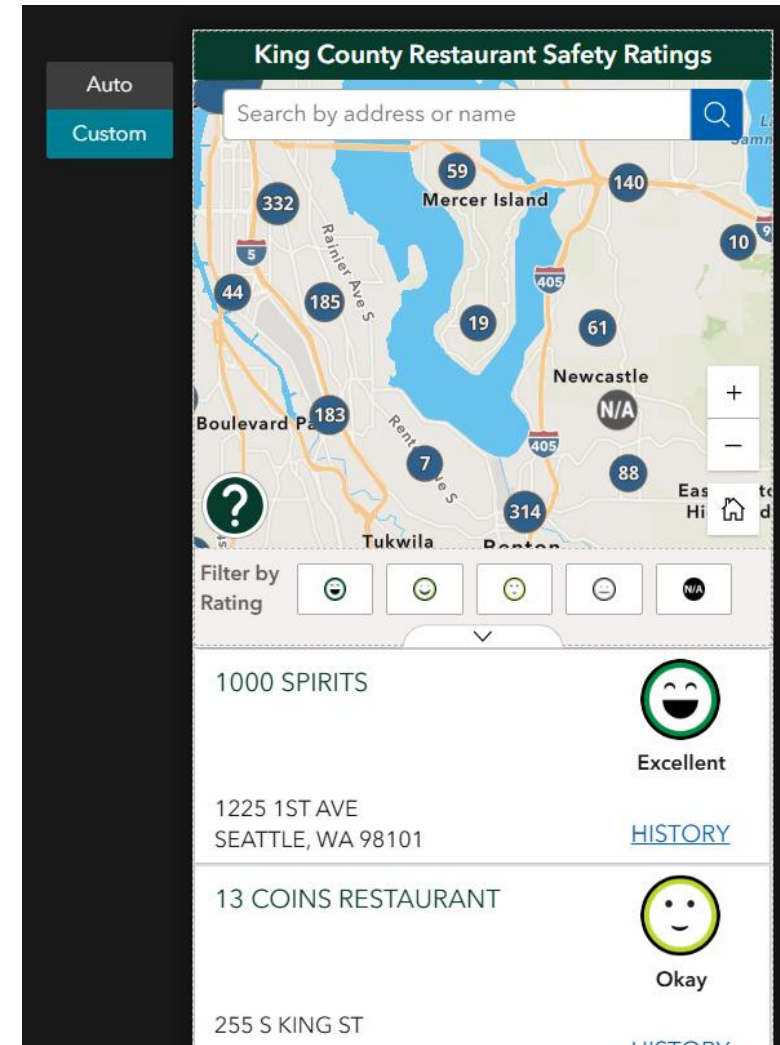


App Development - ExB

How to handle different form factors

Auto vs custom

- Use auto until a first polish pass
- Keeps changes in sync. Once you go custom, they are now separate.
 - Changes like font size, formatting, accessibility



App Development – Info buttons

The screenshot shows a mobile application interface for a business profile. At the top, there is a search bar with the text "Search by address or name". Below it, the business name "+MAS CAFE" is displayed with a green smiley face icon. The address "1906 N 34TH ST SEATTLE, WA 98103" and phone number "Phone: (206) 491-4694" are listed. A green label "Seating 0-12 - Risk Category III" with a question mark icon is positioned above a table. A popup window titled "Risk Categories" is open, containing the text "Risk categories are determined by the complexity of the businesses' food processing and handling." and a link "Learn more about food safety rating categories". The table below has columns for "Date" and "Rating".

Date	Rating
3/11/20	
11/7/25	Satisfactory (0 pts)

App Development – Alt text and Tooltips

Hover text

Tooltip



Alt text



{Business_Grade}

Screen Reader

App Development - Accessibility

The screenshot displays a mobile app development environment for an application titled "King County Food Inspectio...". The interface is divided into several sections:

- Top Bar:** Includes a "Lock layout" toggle, a "Live view" button, a resolution of "360 x 640", and a "Published" status.
- Left Sidebar:** Contains navigation options such as "Page", "Window", "Fixed windows", "Inspections View", "Violations", "Help", "Anchored windows", "Outline", and "Body".
- Central Canvas:** Shows a preview of the app's "King County Restaurant Safety Ratings" screen. It features a search bar, a map of Mercer Island and Newcastle, and a list of restaurants with their safety ratings:
 - 1000 SPIRITS: Excellent (Green smiley face)
 - 1225 1ST AVE SEATTLE, WA 98101: [HISTORY](#)
 - 13 COINS RESTAURANT: Okay (Yellow smiley face)
 - 255 S KING ST: [HISTORY](#)
- Right Sidebar:** Displays accessibility settings for the selected element, including "Home Page", "Open with Window" (set to None), "Animation" (set to None), and "Body" (Fill, Header, Footer).

At the bottom, the page is identified as "Home Page" and the zoom level is set to "100%".

App Development - Accessibility

The screenshot shows a mobile app development interface for an application titled "King County Food Inspectio...". The app's main content is a "King County Restaurant Safety Ratings" screen. This screen features a search bar, a map of Mercer Island and Newcastle, and a list of restaurants with their safety ratings. The ratings are visualized using smiley faces: a green smiley face for "Excellent" and a yellow smiley face for "Okay".

Accessibility features are highlighted in the interface:

- The "Custom" tab is selected in the top-left corner of the app preview.
- The "A11Y" (Accessibility) icon is highlighted with a red box in the bottom-right corner of the app preview.
- The "Change" button in the "Animation" settings panel is highlighted with a red box.

The development tool's sidebar on the left includes sections for "Page", "Window", "Fixed windows", "Anchored windows", "Outline", and "Body". The right sidebar shows settings for "Home Page", "Open with Window", and "Animation". The bottom status bar of the app preview shows "Page: Home Page" and a zoom level of "100%".

App Development – Accessibility (A11Y)

The screenshot displays an application development interface for an app titled "King County Restaurant Safety Ratings". The main view shows a map with a search bar and a list of restaurants. A "Restaurant List" widget is selected, and its accessibility settings are visible in the right-hand panel. A tooltip is also present over the list widget.

App Interface Elements:

- Header: King County Restaurant Safety Ratings
- Search: Search by address or name
- Map: Shows a location on 1st Ave with a rating of 3.
- Filter by Rating: Includes icons for different rating levels and a "N/A" option.
- Restaurant List:
 - 1000 SPIRITS (with a happy face icon)
 - 1225 1ST AVE SEATTLE, WA 98101
 - DILLER ROOM

Accessibility Settings Panel (Restaurant List):

- Content: List
- No data message: No food facilities in map view. Z...
- Arrangement: [Dropdown]
- States: [Dropdown]
- Tools: [Dropdown]
- Accessibility settings:
 - Accessible label: List of food facilities within extent of map.
 - Enable in Skip to: [Checkbox]

Accessibility Settings Tooltip:

- Auto-calculate element tab orders in fixed layouts: [Toggle Off]
- Enable accessibility settings for each widget: [Toggle On]

Development Tool UI:

- Top bar: Live view, 360 x 640 resolution, Published status.
- Bottom bar: A11Y label, zoom level (100%), and other tool controls.

“-ish”

The application and ETL were created in about a week, but the app is not released yet.

The reality of publishing an app at King County

So many reviews

Design Review, Peer Review, Documentation, etc

Data issues

Coming soon!

We're excited to get the app into your hands!

Questions?

