Food Inspections Assignment
A Data Analyst Journey

- Dealing with Food Establishment Inspections in three cities
  - Chicago
  - Dallas
  - New York

- All three cities are recording data on food inspections
  - Note that data differs in **content** & **schema**

Food Establishment Inspections

- Deliverables
  - Part 1: Week 1
    - Get data
    - Load data into Stage table(s) (stg_)
    - Perform data profiling
  - Part 2: Week 1
    - Design Dimensional Model
    - Create DDL SQL script
  - Part 3: Week 2
    - Load dimensional model into Integration tables (int_) from Stage table(s)
  - Part 4: Week 3
    - Create BI dashboards

Food Establishment Inspections

- Deliverables: Part 1
  - Get data from downloaded files from Open Data
  - Load data into Stage table(s) (stg_)
    - Select one for target database: MySQL, SQL Server
    - Follow Staging Guidelines
  - Perform data profiling

- Stage Table
  - Add **DI_CreateDate** – date & time row loaded
  - Add **DI_WorkflowFileName** – the file name of your Alteryx workflow
  - If any dates are stored as text, add a column where that text is converted to date

- Submit
  - Screenshot of Alteryx workflow completed
  - List time your job took to complete
  - DDL script for Stage table(s)

Food Establishment Inspections

- Deliverables: Part 2
  - Identify Dimensions & Facts
  - Create a Dimensional Data Model (ER/Studio or Navicat)
  - Create DDL for any database being used in this class
  - Create schema in chosen database
- Select one: MySQL, SQL Server
- Submit
  - Screenshots of each of the above
  - ER/Studio dm1 file, DDL scrips

Food Establishment Inspections

- Deliverables: Part 3
  - Create data preparation workflow(s) to load data into Integration Schema
    - i.e., dimensional model using Alteryx
  - Load data

- Stage Table
  - Add **DI_CreateDate** – date & time row loaded
  - Add **DI_WorkflowFileName** – the file name of your Alteryx workflow
  - All tables must have a surrogate key (SK)
  - Dates or Datetimes must be in date or datetime data type(s) not text
    - you can also have a date or datetime column in text if that is how came from source and there are errors in dates in source
  - Dates also must have a column representing a date SK i.e. YYYMMDD

- Submit
  - Screenshots of each of the above
  - Alteryx file(s)
  - Table row counts

Food Establishment Inspections

- Deliverables: Part 4
  - Create BI dashboards in both
    - Power BI Desktop published in PBI Service
    - Tableau Desktop published in Tableau Online

Dallas Food Inspection – Assignment Team submission

- Part 1
  - Get data on Dallas' Food Inspections
  - Load into Stage Schema (data as is)
  - Perform data profiling
- Part 2
  - Create a dimensional data model
- Part 3
  - Load data into that dimensional data model
- Part 4
  - Create data visualizations analyzing food inspections

Dallas Food Inspection – Code Compliance Services

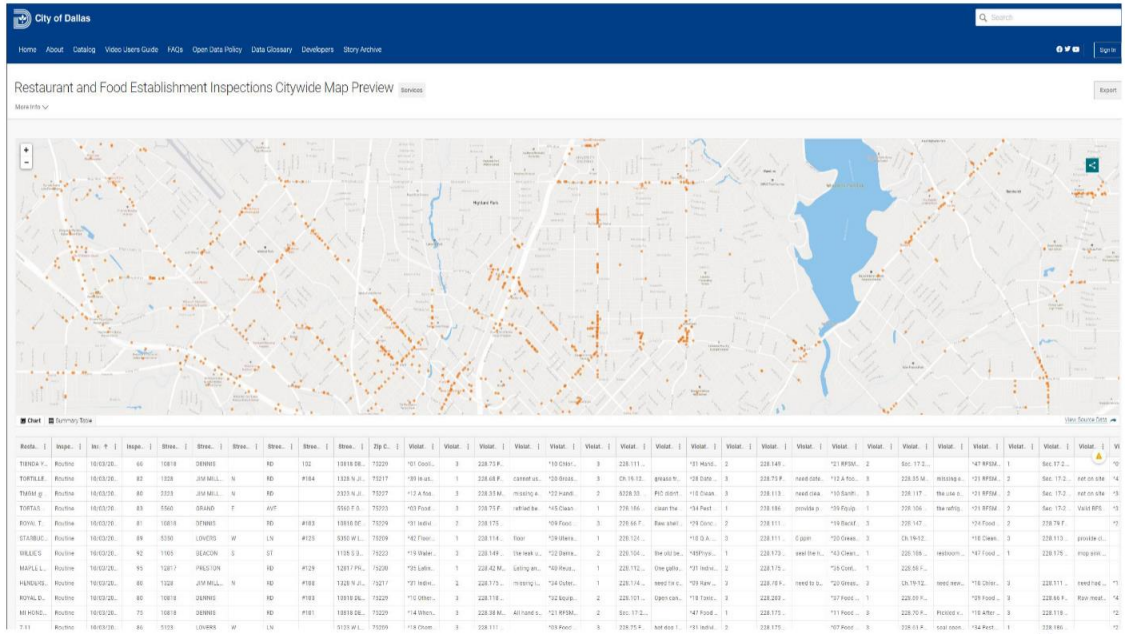
- Score Range

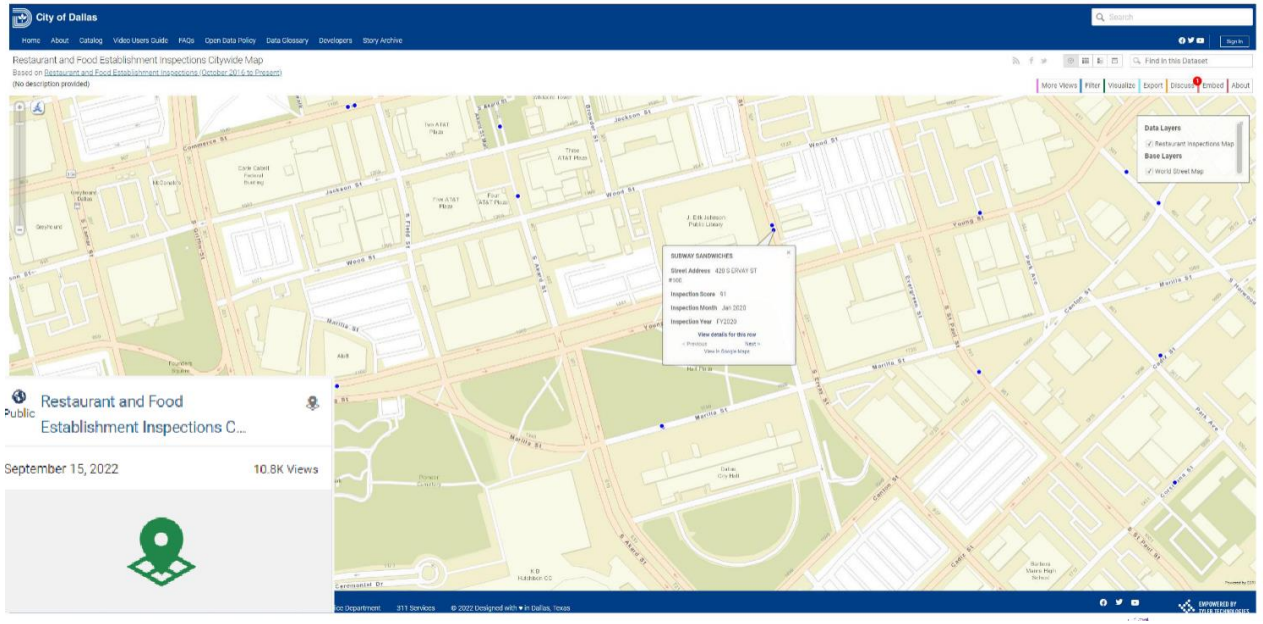
  100-90 (Very Good - Regular 6-month inspection)
  89-80 (Good - Regular 6-month inspection)
  79-70 Passing - Requires re-inspection within 30 days)
  69-60 (Failing - Requires follow-up inspection within 10 days or closure)
  59 and below (Unacceptable - Closure; requires inspection before reopening)

https://dallascityhall.com/departments/sustainabledevelopment/buildinginspection/Pages/restaurant_food_scores.aspx

Dallas Food Inspection – Restaurant and Food Establishment Inspection Citywide Map Preview

- https://www.dallasopendata.com/Services/Restaurant-and-Food-Establishment-Inspections-City/gum4-k6en





Dallas Food Inspection – Data Preparation

- Load Stage & Perform Data Profiling
- Inspection Results Data to Staging Schema: Workflow
- Inspection Results Data to Staging Schema: Results
- Time to load
- Row counts

Dallas Food Inspection – Creating dimensional data model

- Determine Dimensions & Facts
- Data Model

Dallas Food Inspection – Load to Integration Schema (Dimensional Model)

- Load Facts & Dimensions
  - Number of tables count
  - Number of row counts in each table

Dallas Food Inspection – BI

How many food inspections over time
What have been the inspection results over time

- Pass vs fail
- Grades, scores, or score ranges
- Number, severity and types of violations

Food establishments inspected:

- Top ten most inspected (over the last 2 full years)
- Top ten with worst results (over the last 2 full years)

Inspections and inspection results by food establishment attributes. Gifferent data sets have different attributes available, such as:

- Food establishment business type
- Cuisine
- Too be determined (TBD) – you provide possibilities based on the dataset

Map food inspections (if possible)