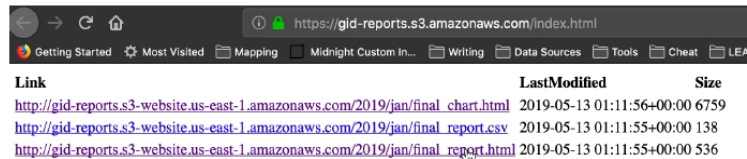


Case Study 1:

Generating a Report Repository

Final product



The screenshot shows a web browser window with the address bar displaying `https://gid-reports.s3.amazonaws.com/index.html`. The browser's tab bar shows several open tabs, including 'Getting Started', 'Most Visited', 'Mapping', 'Midnight Custom In...', 'Writing', 'Data Sources', 'Tools', 'Cheat', and 'LEA'. Below the browser window, a table lists the files in the repository:

Link	LastModified	Size
http://gid-reports.s3-website.us-east-1.amazonaws.com/2019/jan/final_chart.html	2019-05-13 01:11:56+00:00	6759
http://gid-reports.s3-website.us-east-1.amazonaws.com/2019/jan/final_report.csv	2019-05-13 01:11:55+00:00	138
http://gid-reports.s3-website.us-east-1.amazonaws.com/2019/jan/final_report.html	2019-05-13 01:11:55+00:00	536

The steps

Prepare the data

- Download files for the month from the raw data bucket
- Concatenate them into one csv
- Create an aggregated DataFrame

Create the report

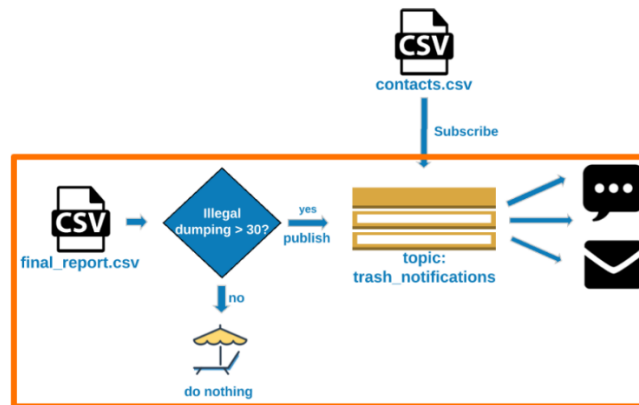
- Write the DataFrame to CSV and HTML
- Generate a Bokeh plot, save as HTML

Upload report to shareable website

- Create `gid-reports` bucket
- Upload all the three files for the month to S3
- Generate an index.html file that lists all the files
- Get the website URL!

Case Study 2: Building a notification system

Final product



Building the notification system

Topic Set Up

- Create the topic
- Download the contact list csv
- Create topics for each service
- Subscribe the contacts to their respective topics

Get the aggregated numbers

- Download the monthly get it done report
- Get the count of Potholes
- Get the count of Illegal dumping notifications

Send Alerts

- If potholes exceeds 100, send alert
- If illegal dumping exceeds 30, send alert