Bloomington City Service Requests Dashboard Report

Introduction: The Bloomington City Service Requests Dashboard is an enhanced data visualization tool developed using Plotly Dash. This dynamic dashboard leverages data from the city's API to offer a user-friendly interface, providing detailed insights into various service requests made by Bloomington City residents. The recent updates to the dashboard have further enriched its features, making it a powerful tool for exploring trends, patterns, and critical details related to service requests.

Api: data.bloomington.in.gov/resource/aw6y-t4ix.json?$query=SELECT service_request_id%2C requested_datetime%2C updated_datetime%2C closed_date%2C status_description%2C source%2C service_name%2C description%2C agency_responsible%2C address%2C city%2C state%2C zip%2C lat%2C long%2C geocoded_column%2C sladays ORDER BY status_description DESC
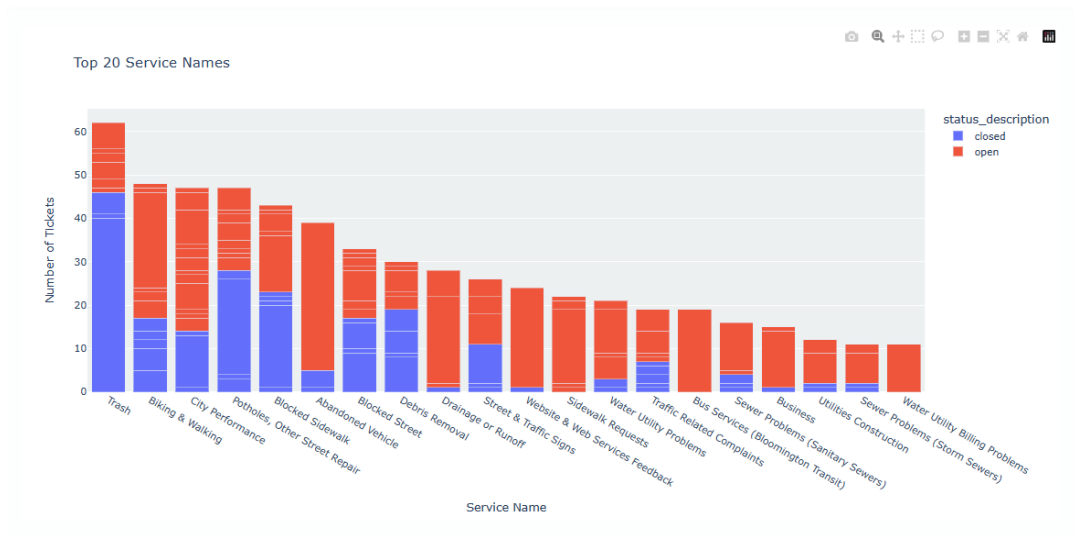
Code in Basecamp or Github: Dash/Bloomington City Service Requests Dashboard at main · MustafaAlsaegh/Dash (github.com)

Key Features:

1. **Bar Chart:**

   - The bar chart now displays the top 20 service names with the highest number of open tickets, using distinct colors (blue for open and red for closed).

   - Users can easily discern the distribution of open and closed tickets across different service categories.

   - The chart dynamically updates based on the selected service name and the status (open or closed).

Explore open and closed tickets for Bloomington City
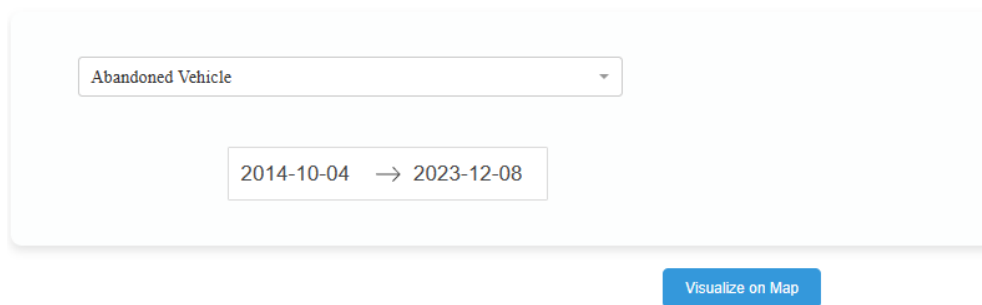
Top 20 Service Names

Click on barchart to show agency responsible:

Top 20 Service Names

status_description=closed
Service Name=Trash
Number of Tickets=40
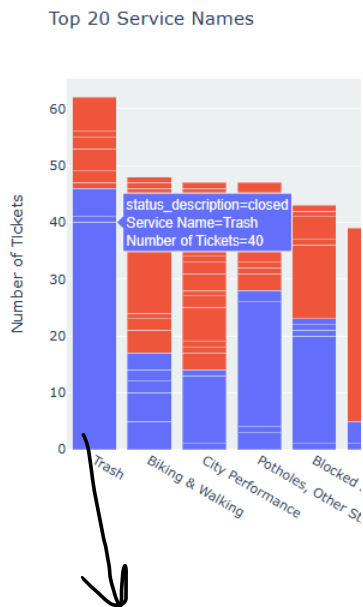
Agency Responsible	Percentage
HAND	64.52%
Parks and Recreation	1.61%
Sanitation Department	8.06%
Community and Family Resources	1.61%
Engineering	3.23%
HAND	6.45%
Public Works Department	3.23%
Sanitation Department	1.61%
Transit	9.68%
Total Tickets	62
Percentage Closed	74.19%

2. **Dropdown Menus:**

- A dropdown menu allows users to select a specific service from the top 20 service names.

- Another dropdown menu enables users to filter between open and closed tickets.

- These interactive dropdowns provide users with a seamless way to explore and analyze the data based on their preferences.

3. **Date Range Picker:**

- Users can now choose a date range to filter service requests based on the requested datetime.

- This feature enhances the temporal analysis of service requests, allowing users to focus on specific time periods.

4. **Map Visualization:**

- The interactive map now displays a clear distinction between open (blue) and closed (red) service requests.

- Users can select a service name, choose the status (open or closed), and set a date range to visualize relevant data points on the map.

- Hovering over a data point provides detailed information, including the service request ID, description, agency responsible, address, and the number of days the open ticket has been unresolved.
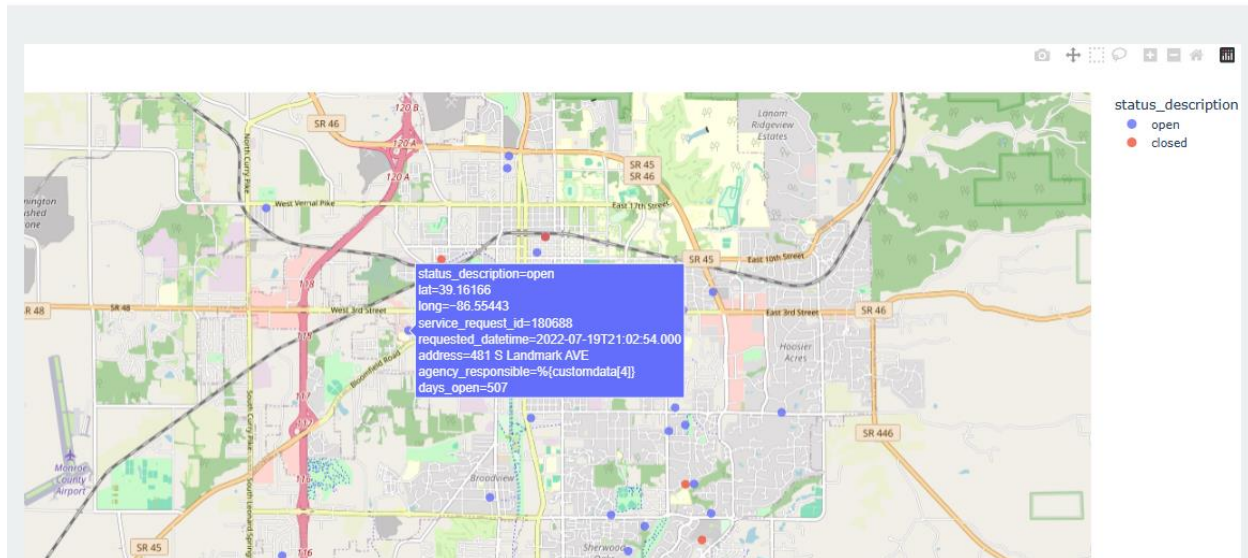
Conclusion: The Bloomington City Service Requests Dashboard continues to provide a comprehensive and interactive platform for city officials, residents, and other stakeholders. The recent updates, including the enhanced bar chart, dropdown menus, date range picker, map visualization, and detailed table display, empower users to explore and understand the dynamics of service requests in Bloomington City. The ability to update data from the API ensures the dashboard's ongoing relevance and usefulness in tracking and addressing citizen concerns over time.

Future Enhancements:

As the Bloomington City Service Requests Dashboard evolves, there are several areas where the next group can focus to further enhance the user experience and analytical capabilities:

1. **Advanced Filters:**

   - Implement additional filters to allow users to narrow down data based on specific criteria such as priority, source, or geographical regions within the city.

2. **Predictive Analytics:**

   - Integrate predictive modeling to forecast future service request trends. This could involve leveraging machine learning algorithms to predict the likelihood of service requests in certain areas or during specific periods.

3. **Real-Time Updates:**

- Explore options to enable real-time updates to the dashboard. Implementing a streaming mechanism could provide users with instantaneous insights into the latest service requests as they occur.

4. **Enhanced Map Features:**

- Integrate additional map features, such as clustering for densely populated areas, to enhance the visualization of service requests geographically.

By focusing on these areas, the next group can contribute to making the Bloomington City Service Requests Dashboard a more powerful and versatile tool for understanding and addressing the service needs of the community.