

CS-546 Final Project Proposal

NYC Capital Budget Explorer

(Transparency & Civic Engagement Web Application)

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GitHub Repository: https://github.com/Badri-Narayanan/NYC_Capital_Budget_Explorer

Introduction

New York City's capital budget involves billions of dollars allocated each year across projects ranging from transportation and housing to education and parks. Despite its significant impact on residents' daily lives, the details of this spending are often difficult to access. The NYC Capital Budget Explorer is a web application designed to bridge this gap by providing an intuitive, interactive interface for exploring, filtering, and visualizing NYC Council Capital Budget data, which is updated daily while allowing for public feedback.

This project will increase government transparency and civic participation by empowering residents to review spending details by district, agency, and category, and to submit their input on future budget priorities.

Motivation

Public funds shape the infrastructure and services in NYC, yet many residents lack access to detailed, current information on:

- **Fund Allocation:** How funds are distributed among transportation, housing, education, etc.
- **Project Impact:** Whether past investments have positively affected their communities.
- **Future Priorities:** Which projects should receive increased funding based on local needs.

By providing a web-based platform that visualizes daily-updated budget data and incorporates user feedback, this project aims to foster accountability in government spending and create a more engaged citizenry

Core Features

1. User Authentication

- Implement a secure login and registration system.
- Validate user inputs on the client-side, within Express routes, and in MongoDB functions.

2. Interactive Data Visualization

- Display capital budget allocations across NYC council districts and spending categories.
- Utilize client-side JavaScript for dynamic updates.

3. Advanced Filtering and Search

- Filter data by council district, agency (e.g., Department of Transportation, Parks Department), category, and fiscal year.
- Provide intuitive controls (drop-downs, sliders) to refine data views.

4. Public Engagement and Feedback Tools

- **Form Submissions:** Enable residents to submit comments and vote on future budget priorities without reloading pages.
- **Impact Feedback Module:** Include a “Did this project impact you?” feature that collects testimonials and ratings.
- Implement error checking for all form submissions.

Extra Features

- **Downloadable Reports:**
 - Enable users to export visualizations and data summaries as PDF or Excel files.
- **Enhanced Data Analytics:**
 - Add additional statistical insights and trend analysis modules for deeper understanding of spending patterns.

Data Sources

The primary data source is the NYC Council Capital Budget dataset available at:

[NYC Council Capital Budget Data](#)