Legislation Tracker: A State-Level Bill Monitoring App using the LegiScan API

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# Abstract

Today’s societal culture leaves people so incredibly connected to our phones, yet equally as disconnected from the world around us. This country is currently encountering an issue regarding citizen representation as well as awareness of what our government is acting upon. We must use our technology to remain informed about the decisions being made about us. According to Pew Research, “71% of U.S. adults ages 18 to 29 get news about local government and politics from social media often or sometimes, compared with 36% of those 65 and older” (Wang et al, 2024). Social media lacks ethical and fact-checking, unbiased ways for people to properly digest political news. With this, an app is formed to allow citizens to view the most recent state legislation from the comfort of their phone, without biased opinions. Through the use of coding technologies like Android Studio, Kotlin, and the Legiscan API, user can easily select their desired state and view recent legislation going through their state government. They can even view a specific bill’s detailed information, its sponsors, as well as the voting data as it moves through committees. This app is an incredible way for the people of this country to bring back proper citizen representation.

# Introduction

Keeping citizens in the dark about federal or state legislation drives them away from remaining active in the policy-making environment. This allows the government to make decisions for the public without their input. Giving citizens access to legislative data allows them to understand what is at risk in their state and what they must protest or support. “Among U.S. adults who follow news about local government and politics, four-in-ten of those with strong community attachment are extremely or very satisfied with the local political news they get- more than double the share among those who feel little or no attachment to their community (16%).” (Wang et al, 2024). More active individuals within state politics are happy with how state legislation is going. If you are not happy, start informing yourself so you can make a change. Using LegiScan’s daily updating API, this app’s tracking mechanism is updated regularly to give users recent data regarding legislation under consideration within their state government. A user selects their desired state to view and sees up to 40 recent state legislations currently voted in, or up for consideration within the state senate. The user can then click on a bill to view more details, including the description, sponsors, and voting data from committees. The bill sponsors list allows users to contact specific state representatives to question them on legislation they view on the app.

# Literature Review

“Civic Technology” is a term rising in popularity as our governmental power and structure continue to evolve under democracy. It is defined as “technology (mainly information technology) that facilitates democratic governance among citizens” (Saldivar et al, 2018). This can either be government or citizen-centric. Going by my main goals, we are exploring the citizen-centric role of civic tech. “A citizen-centric definition presents it as ‘platforms and applications that enable citizens to connect and collaborate with government’” (Saldivar et al, 2018). Taking this and applying it to my main ideas regarding my project, the app is a piece of civic technology. It allows citizens to remain informed of the most recent potential changes within their state, and gives them opportunities to change them.

# Requirement and Specification

An app always requires system and user requirements and specifications. For the software, it is required to have Android Studio in the Kotlin language, LegiScan API, and Git for source control. As for hardware, simply a phone and a development machine. For users, the target is for civically engaged users, students, and potentially journalists who rely on fast-updating information. The app also required internet access for the API to connect properly.

# Design

## A diagram of a computer AI-generated content may be incorrect.Class Diagram

## Use Case Diagram

## A diagram of a model AI-generated content may be incorrect.Architecture/ Model, MVVM

# Implementation and Source Control

The core aspects of display for the app fall into the use of a recycler view, spinner, and fragmentation. The spinner allows users to easily select a state to search for recent legislation. Once the user selects a state, it triggers a call to the LegiScan API to fetch legislation from the desired state. RecyclerView is used to display the list of bills. It is a scrollable list returned from the API, each bill cell has a specific bill’s ID and title. The adapter binds the data to the view. Fragmentation allows the user to select specific bills and enter a new location in the app: bill details. Here, the user can see more in-depth information regarding an app the user has an interest in. ViewModel manages the UI-related data and endures configuration changes by using LiveData to observe the state selection of the bill-fetching process.

Retrofit is used with the API as an HTTP client for proper communication. A RetrofitService file defines valuable endpoints for collections like bills, masterList, and more. LegiScan API responses follow a JSON format, and Gson is used by Retrofit to map these responses for display.

Due to this being an independent project, I did not need to use GitHub in collaboration with others.

# Testing and Results

My testing was more or less done via LogCat, ensuring that the API was correctly connecting to my code and properly displaying the JSON information. After finally achieving a proper API connection, I was able to work with a better display and filtration among the bills.

## A screenshot of a phone AI-generated content may be incorrect.Main Activity (Main Menu)

A screenshot of a cell phone

AI-generated content may be incorrect.

## A blue box with text AI-generated content may be incorrect.Bill Details

# Ethical, Legal, Security Considerations & Concerns

One main concern is the idea of user privacy, however this app I want to be open to anyone who calls this country their home. So, the app is open to anyone who downloads it. No login needed, as there is not need to save anything the user does within it. If this app ever becomes something a user can save actions in, then A user login will be implemented.

API keys are made to be kept hidden, and should do so by hiding them in the local.properties file within Android Studio.

The free version of LegiScan API only allows for around 30,000 calls a month, meaning that it may not cover the amount of genuine applications found on the app store. In order to properly publish, I either need to find another API or pay for a more complex API level within LegiScan.

Legislation information is public due to the Freedom of Information Act, and should be embraced by citizens I order to know what is at stake for their country.

# Project Performance, Uniqueness and Similarity to Others

While we see multiple online sources for legislation tracking, many have yet to move to a mobile app structure. However, we have apps like Countable and BallotReady that are arguably the best comparisons to my app. Countable allows users to track legislation and form scripts for users to call politicians with. BallotReady is more election-centered, allowing a user to register to vote, view ballot information, and find locations to vote. While both are highly valuable at this time, they do not cover local legislation, nor do they filter between different states for the user to look across the country. Using LegiScan’s API allows users to openly look at any state they want, giving them freedom of information for issues happening in any area of the country.

# Conclusion

This Legislation Tracker application brings users back to the forefront of legislation and representation. Allowing users to be fully informed in their state’s legislation process helps citizens become more active in politics, and aids in a change for the betterment of not only their own state, but hopefully the country. While building this app, I grew to learn more about how APIs work as well as how to implement this into applications, and also how to test code to check API connection. In the future, I hope to better the Bill details fragment, and maybe migrate this code into Xcode, with hopes to one day publish it in the App Store. Having legislation trackers on the phone is the next best step in getting citizens back into politics and fighting for what we need as humans.

# Works Cited

GeeksforGeeks. “MVVM (Model View ViewModel) Architecture Pattern in Android.” *GeeksforGeeks*, 18 Feb. 2025, www.geeksforgeeks.org/mvvm-model-view-viewmodel-architecture-pattern-in-android.

---. “Networking and API Integration in Android.” *GeeksforGeeks*, 17 Apr. 2024, www.geeksforgeeks.org/networking-and-api-integration-in-android.

Jcoleman, and Jcoleman. “How Americans Get Local Political News.” *Pew Research Center*, 7 May 2025, www.pewresearch.org/journalism/2024/07/24/how-americans-get-local-political-news.

RapidAPI, Team. “How to Build Your First Android App (Using an API).” *Rapid Blog*, 21 July 2021, rapidapi.com/blog/build-android-app-with-api.

Saldivar, Jorge, et al. “Civic Technology for Social Innovation.” *Computer Supported Cooperative Work (CSCW)*, vol. 28, no. 1–2, May 2018, pp. 169–207. https://doi.org/10.1007/s10606-018-9311-7.