

Constraint Essay: SpotifyStats

SpotifyStats, our analytics and prediction tool, is designed to provide insights into Spotify users' listening history and habits. Our project faces constraints in several areas, including security, ethics, economics, legal compliance, and professional development. Below is an overview of how these constraints impact our work:

Security

Security is a critical concern, as we handle user data fetched through the Spotify API. The API provides built-in protections by restricting access to authorized data. Our primary responsibility is to maintain a secure pipeline for data transfer between the backend and frontend. Since we do not store user data, and all data is displayed live, our exposure to long-term security risks is minimal.

Ethics

We ensure that users are informed about how their data is accessed and used, following common practices like providing a clear privacy policy. By adhering to Spotify's permissions and avoiding unnecessary data access, we aim to respect user privacy and avoid any ethical pitfalls.

Economics

We will be relying entirely on free resources like the Spotify API and open-source tools. While this limits the scope of certain features, such as those requiring paid API tiers, it aligns well with our educational goals and ensures the project remains cost-effective. While many Spotify users opt for a paid subscription, Spotify also offers a free version with ads, making the platform widely accessible. However, should Spotify's free API policies change or require payment in the future, this could impose a financial constraint on our project.

Legal

We are bound by Spotify's API terms of service, which dictate how data can be accessed and used. Compliance with these terms is essential to avoid potential legal disputes. Intellectual property concerns may arise if we incorporate any third-party resources or libraries, making it crucial to verify licensing agreements and attribution requirements.