Spotify Info Dashboard

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Overview

The Spotify Info Dashboard is a web application that visualizes Spotify song data using various charts. It allows users to filter and analyze songs based on popularity, artist, and release date. The dashboard is built using React, TypeScript, Chart.js, Tailwind CSS, and Material-UI for theme toggling.

Features

- **Bar Chart:** Visualize the popularity of songs.
- **Horizontal Bar Chart:** Display the number of tracks by top artists.
- **Line Chart:** Show the number of tracks released by month.
- **Filter Modal:** Filter songs based on popularity, artist, and release date.
- **Theme Toggling:** Switch between light and dark themes.

Installation

Prerequisites

- Node.js
- npm or yarn

Steps

1. Clone the repository:

```
git clone https://github.com/SamuelMasih777/spotify.git
cd spotify-info-dashboard
```
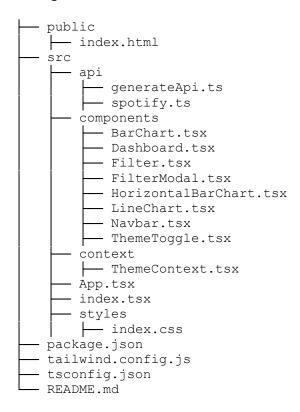
2. Install dependencies:

```
npm install
# or
yarn install
```

3. Start the development server:

```
npm start
# or
yarn start
```

Project Structure

```
├── public
│   ├── index.html
├── src
│   ├── api
│   │   ├── generateApi.ts
│   │   ├── spotify.ts
│   ├── components
│   │   ├── BarChart.tsx
│   │   ├── Dashboard.tsx
│   │   ├── Filter.tsx
│   │   ├── FilterModal.tsx
│   │   ├── HorizontalBarChart.tsx
│   │   ├── LineChart.tsx
│   │   ├── Navbar.tsx
│   │   ├── ThemeToggle.tsx
│   ├── context
│   │   ├── ThemeContext.tsx
│   ├── App.tsx
│   ├── index.tsx
│   ├── styles
│   │   ├── index.css
├── package.json
├── tailwind.config.js
├── tsconfig.json
└── README.md
```

Usage

Navbar

The `Navbar` component displays the application title and a link to the author's portfolio. It also includes a theme toggle button to switch between light and dark themes.

Dashboard

The `Dashboard` component fetches song data from the Spotify API and displays it in various charts. It includes a filter modal for refining the data displayed in the charts.

Charts

- **BarChart:** Displays the popularity of songs.
- **HorizontalBarChart:** Shows the number of tracks by top artists.
- **LineChart:** Displays the number of tracks released each month.

Filter Modal

The `FilterModal` component allows users to filter songs based on popularity, artist, and release date.

Theme Toggling

The `ThemeToggle` component allows users to switch between light and dark themes.

API Integration

Spotify API

- **fetchSongs(token: string):** Fetches song data using the provided access token.
- **getAccessToken():** Retrieves an access token for the Spotify API.

Styling

- **Tailwind CSS:** Used for general styling of components.
- **Material-UI:** Used for theme toggling and modal styling.

Customization

You can customize the theme and styles by modifying the `ThemeContext` and Tailwind CSS configuration.

Deployment

Netlify

1. [Live site](https://spotify-info.netlify.app/) https://spotify-info.netlify.app/
2. Link to [github](https://github.com/SamuelMasih777/spotify) https://github.com/SamuelMasih777/spotify

Contributing

Feel free to open issues or submit pull requests for any improvements or bug fixes.

License

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