



Open Source GitHub Project Explorer – Project Report

Submitted by: Deep Ghinaiya

Technology Stack: React.js, GitHub REST API, Chart.js, Tailwind CSS

◆ Introduction:

In the modern developer ecosystem, GitHub stands as the central hub for open source collaboration. With thousands of new repositories emerging daily, there is a growing need for a tool to help developers explore trending and relevant projects efficiently. This project aims to simplify GitHub repository discovery using a clean, interactive dashboard.

◆ Abstract:

The Open Source GitHub Project Explorer is a web-based dashboard that allows users to discover, filter, analyze, and bookmark GitHub repositories. It enhances the default GitHub browsing experience by offering custom filters, visual analytics, and repository-level notes. This tool empowers developers, learners, and contributors to find valuable projects quickly and make informed decisions.

◆ Tools Used:

- **React.js:** For building a dynamic and modular user interface.
 - **GitHub REST API:** For fetching real-time repository data.
 - **Chart.js:** To render visual statistics of repositories.
 - **Tailwind CSS:** For responsive and sleek UI design.
-

◆ Steps Involved in Building the Project:

1. Environment Setup:

Initialized the project using create-react-app and installed dependencies such as Axios, Chart.js, and Tailwind CSS.

2. **API Integration:**

Integrated GitHub REST API to fetch trending repositories, language stats, contributions, and issue data.

3. **Feature Development:**

- Implemented filters for sorting by stars, languages, and last updated date.
- Built a real-time search bar and tag-based filters.
- Enabled bookmarking and added a notes section for each repo.

4. **Analytics & Charts:**

Displayed bar and pie charts for issues, stars, forks, and contributions using Chart.js for selected repositories.

5. **UI/UX Design:**

Used Tailwind CSS for designing a responsive, modern, and intuitive dashboard layout.

6. **Testing & Deployment:**

Conducted functionality testing and deployed the app on a live hosting platform like Vercel.

◆ **Conclusion:**

The GitHub Project Explorer offers an enhanced way to browse and evaluate open source repositories. With its analytics, filters, and bookmarking features, it serves as a productive tool for developers and contributors. The project also demonstrates practical skills in React development, API handling, and data visualization, making it a valuable addition to any modern portfolio.