Open Source

A Basic Guide to Vetting Dependencies

What we'll Cover

Coverage Today: *Javascript & Typescript*

- Open Source Brief
- When to Explore
- Processes & Systems
- Final Thoughts

Open Source

What is it?

Open source describes software where the source code is available for anyone to view, use, change, and then share.

Making source code publicly available allows others to build on and learn from it, enabling broad collaboration from people around the world.

Open Source

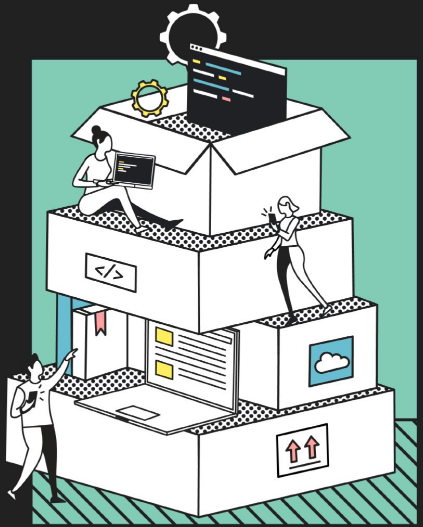
Where can I find it?

It's in your phone, your car, your TV, and your wifi-connected light bulbs.

Open source components enable engineers to build on the work of a global community of developers to deliver better products faster and at lower cost.

Linux, the Apache web server, Android, Firefox, and WordPress are examples of open source projects you may have heard of.

Flavors of Open Source



Some Basic Flavors

Languages

Package Registries

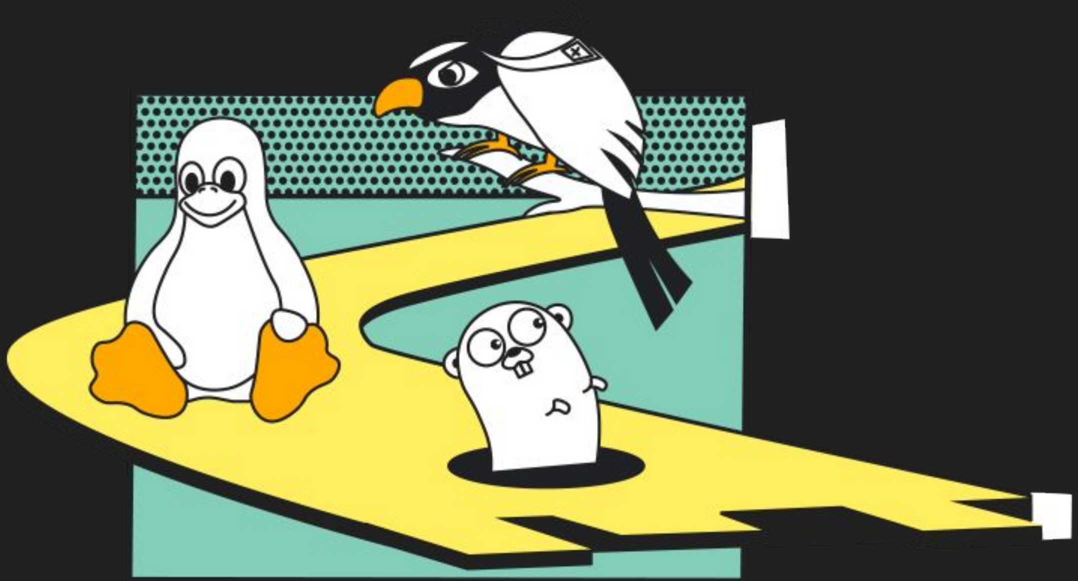
- Libraries
- Components
- UI/UX
- Utilities
- Others

Development tools

Operating Systems

Browsers

So much more!



When & How to Explore

It all comes down to use case…

Project

Depending on the scope & time constraints, the opportunity cost for exploring may be high.

DevOps CI/CD

In Production

Context

Language

Framework

Completed Work

Team

New open source implementations are difficult with larger teams

Time to implement exponentially increases when adding team members

Quick Example

Project:

- Refactoring a large scale app’s frontend from Javascript to Typescript
- Large User Base
- In production
- DevOps Configured

Context:

- React app in Javascript
- Using Create-react-app

Team:

- 5 Engineers
- All Javascript Developers
- No experience with Typescript

THIS IS NO TIME TO EXPLORE!

Another Example

Project:

- Side Project
- Building a gatsby site
- No time constraints

Context:

- No codebase
- Thinking about using Typescript

Team:

- Just you
- You have some Javascript experience

✓

THIS IS A PERFECT TIME TO EXPLORE!

Process & Systems for Vetting

Use Case

Like we did earlier!

Determine your use case and exploration constraints first

Problem or Why?

What’s the issue

Client-Side / Frontend:

- UI Library
- Design System

Server-side / Backend

- Utilities
- Networking tools
- Formatters

Pick a Resource

Determine resources based off problem

- Package Registry
- Curated Tools
- Links or Articles
- Github or VC online

Process & Systems for Vetting

Dependency

After picking a resource, check out some basic info on the dependency

- Docs?
- Repo Url?
- Demo?
- Relevant stats like Downloads?
- Site?

Repository

Check out the source for small purpose dependencies

- Stars?
- Docs?
- Issues?
- Commits?
- Maintainers Credibility?
- Who’s using it?

Implementation

Small Scale First

Use an online IDE or playground to see the project in action

- How long does this take?
- Is this useful?

Example Time

Bad Issues example:

Configuration
https://github.com/howtographql/react-apollo/issues/33

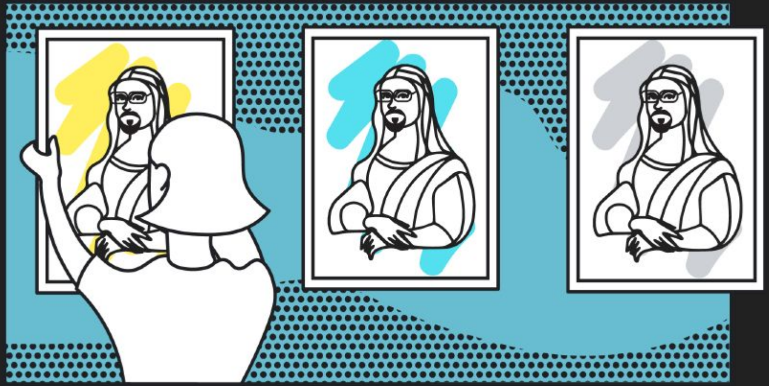
User Issue:
https://github.com/prisma/graphql-playground/issues/926

Deps for single purpose :

Extended Array methods:
https://github.com/lodash/lodash
https://lodash.com/docs

Unnecessary Package:

Download Utility
Proposed Dependency
Implementation



Final Thoughts…

Be Dynamic

Your processes much like technology we use as developers must be dynamic

Your ability to adapt and refine your processes for finding resources will truly determine your success as a developer

Be Aware

Freemium or Source Available is not open source!

SaaS companies take advantage of exposing developer tools that aren’t the “full version” of the product

Companies like AWS are known to do this.

Contribute!

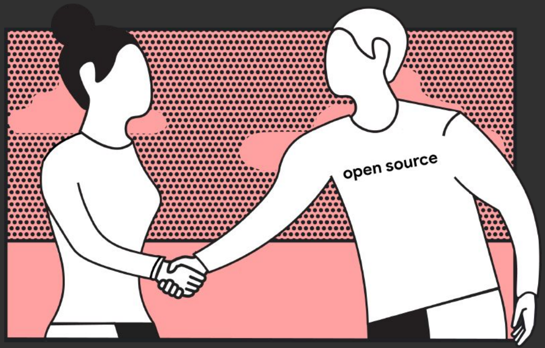
The best way to expose yourself to the open source world is to contribute

Open Source is a vast universe trying to conquer a large set of issues.

Great place to practice and develop your skills!

Every skill-set is welcome!

Improved street-cred is always good ;)



Useful Resources

A personal list I use for scoping out projects

Stackshare.io

Npms.io

Libraries.io

Js.coach

Medium.com

Github Trending

Twitter!

Opensource.dev

codesandbox.io

Thanks!

Feel free to reach out to me

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