Building better search results with Vue.js

WordCamp 2019

INSIDEOUT
DESIGN + DEVELOPMENT

Introductions

- InsideOut Design & Development is a development shop that handles website creation with WordPress

- Our motto: Build sites that **work** as great as they **look**

- Ian Gray - Senior Software Architect with over 18 years of experience.
  - Over 10 years of WordPress, going back to 2.X!

- Andrew Vickerman - Designer by training, developer by trade.
  - Full stack developer focusing on front end for the last 3 years.
  - Specializing in WordPress and JavaScript.

Prerequisite Knowledge

- This is for intermediate to advanced developers
- You need to at least know the basics of:
    - WordPress
    - JavaScript
    - PHP

Follow along

For those of you who like to tinker, clone the git repo and checkout the branch "step-1"

https://github.com/insideout-andrew/wordcamp-2019

When would I want To use this technique?

- Displaying data that needs filtering and paging capabilities
- Speed up ⌛ screen rendering times
- Get closer to the coveted 💯 Google speed page score
- Gets rid of the ☠️ dreaded "Confirm form resubmission" when the user hits the back button in a browser
- 🚫 Removing the need for POST/GET/SESSION/page refreshes when submitting forms
- Immediate ⚡ user feedback based on their actions
- Separate code into smaller, more understandable parts 🗃️

Why Vue.js?

Isn't Gutenberg built on React.js, why learn Vue.js?

- **Vue.js** is newer 🆕 compared to React and Angular
- **Vue.js'** popularity 📈 has recently passed React*
- Version updates for **Vue.js** have been far less impactful 💥 to legacy code
- **Vue.js** is lightweight 🐦 (only 58.8K minified!)
- Ease of use 🔤, it is insanely easy to get started and integrate into existing projects
- Super fast 🏎️ and efficient DOM rendering

Source:
*https://www.codeinwp.com/blog/angular-vs-vue-vs-react/

What are we going to Code?

- A WordPress search page powered with Vue.js
- We will provide instant user feedback when they interact with the page
- We will have the functionality to do a text search, filter by category, and jump to pages

Vue.js Basics

Step 1: Getting Started with Vue.js

git checkout step-1
index.php

- Add a HTML element that Vue .js will be mounted on

- Include Vue.js via a CDN or download locally

- Start the Vue.js app via JavaScript

Step 2: Vue.js Loops

git checkout step-2
index.php

- You can loop through data arrays and display that to the DOM using the "v-for" directive

- You can access properties of each element of the array using standard JavaScript dot notation

Step 3: Vue.js Conditionals

git checkout step-3
index.php

- You can have Vue.js check whether an element should be shown or not by utilizing the "v-if" directive

- This can stop bad results from or be used to show/hide elements based on conditions

Step 4: User Actions

git checkout step-4
index.php

- When a user interacts with the app, you can run functions using either "v-on:*action*" or "@*action*" directives

Step 5: User Driven Data

git checkout step-5
index.php

- Using the directive "v-model," we can have 2-way data binding between the DOM and the app

Step 6: Putting it All Together

git checkout step-6
index.php

- Now we will put all the techniques we have learned so far into an app that displays a list of movies that you can add onto.

- The app shows off the following techniques:

  - Rendering dynamic content to the DOM

  - Loops and conditionals

  - User driven actions and inputs

Step 7: WordPress Vue.js HTML

git checkout wordpress
index.php

- **<form>** - User Driven Data
  We are using v-model to bind user data to our Vue.js app

  We are using @click to handle user interaction

- **<ul>** - Search Results
  We use v-if and v-for to build our results list

- **<nav>** - Pagination
  We use v-if and v-for to build out how many pages there are

  We use @click to handle user interaction

Step 8: WordPress Vue.js Data

git checkout wordpress
vue-search.js

- User input data:
  search
  category

- App data:
  loading
  page
  maxPages
  results

Step 9: WordPress Vue.js Methods

git checkout wordpress
vue-search.js

- goToPage - Set a specific page then call getResults

- submitSearch - Submit the user's query.
  Sets the page to 1 and calls getResults

- getResults - Make an AJAX call to WordPress using our app's data to get results of the user's query

Step 10: AJAX

git checkout wordpress
functions.php

- We localize the vue-search.js with the admin-ajax URL to utilize WordPress's AJAX features. In this case, we use a function named "ajax_search"

- Use the user's search query and selected category to power a WP Query.

- Grab the pieces of WP Query that we need for the app

- Add some extra meta to each post

- Return the results to the app

Conclusion

- We demonstrated the basic pieces and interactions within a Vue.js app

- Built up increasingly difficult apps based on what we previously covered

- Brought those ideas into WordPress to provide the user with a fast and great experience in <180 lines of code

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Questions?