# Subjects to Continue Exploring

#### Advanced HTML / CSS

- Progressive Web Apps Built sites that can be installed "like an app" on phones / tablets
- ARIA Accessibility Improve access to people using assistive technologies
- Semantic HTML Use tags and attributes that are convey meaning
- Responsive Images Load images dependent on screen type
- Audio and Video tags for rich media embedded in pages
- CSS Grid Layout
- Z-index for content stacking control
- CSS Animations

## HTML API Scripting

- <u>fetch</u> make HTTP requests in JavaScript without page reloads
- localStorage key-value persistent storage a web browser maintains
- indexeddb document database in the web browser
- service workers create rich offline client-side applications
- web workers run computationally expensive JS tasks in background threads
- touch events make client-side experiences better on phones/tablets
- web sockets create a long lived, bi-directional connection to a server for "server push"
- Many more! <a href="https://developer.mozilla.org/en-US/docs/Web/API">https://developer.mozilla.org/en-US/docs/Web/API</a>

#### Client-side Web Frameworks

- React (for views)
- Angular Model and Views
- Vue.js HTML, CSS, JS components

### HTTP Protocol

- HTTPS (Secure Connection) Certificate
  - Explanation of HTTPS
  - Service to get a free certificate: <a href="https://letsencrypt.org/">https://letsencrypt.org/</a>
  - Steps for using HTTPS in node.js/express
- Cross-Origin Resource Sharing Share resources across domains
- Content Security Policy
- Caching Overview of caching and related headers
- HTTP Authorization Basic, Bearer
- Evolution of HTTP

#### Server-side Application Development

- Idempotence of GET, PUT, and DELETE HTTP method requests
- Implement RESTful APIs
- OAUTH2 for 3rd party identity management/integration (Google/FB login)
- Multi-part request handling allow file uploads in your web app
- Web sockets for rich communication between server and client
- Data validation and sanitization for user inputs

### DevOps

- The 12 Factor Application
- Serverless Application Development (AWS Lambda, Netlify Functions)
- Containers and Docker
- Web Server / Reverse Proxy: <u>nginx</u>
- Web Caching Server: <a href="https://varnish-cache.org/">https://varnish-cache.org/</a>