BTI425/WEB422 - Web Programming for Apps and Services

Lecture Recap:

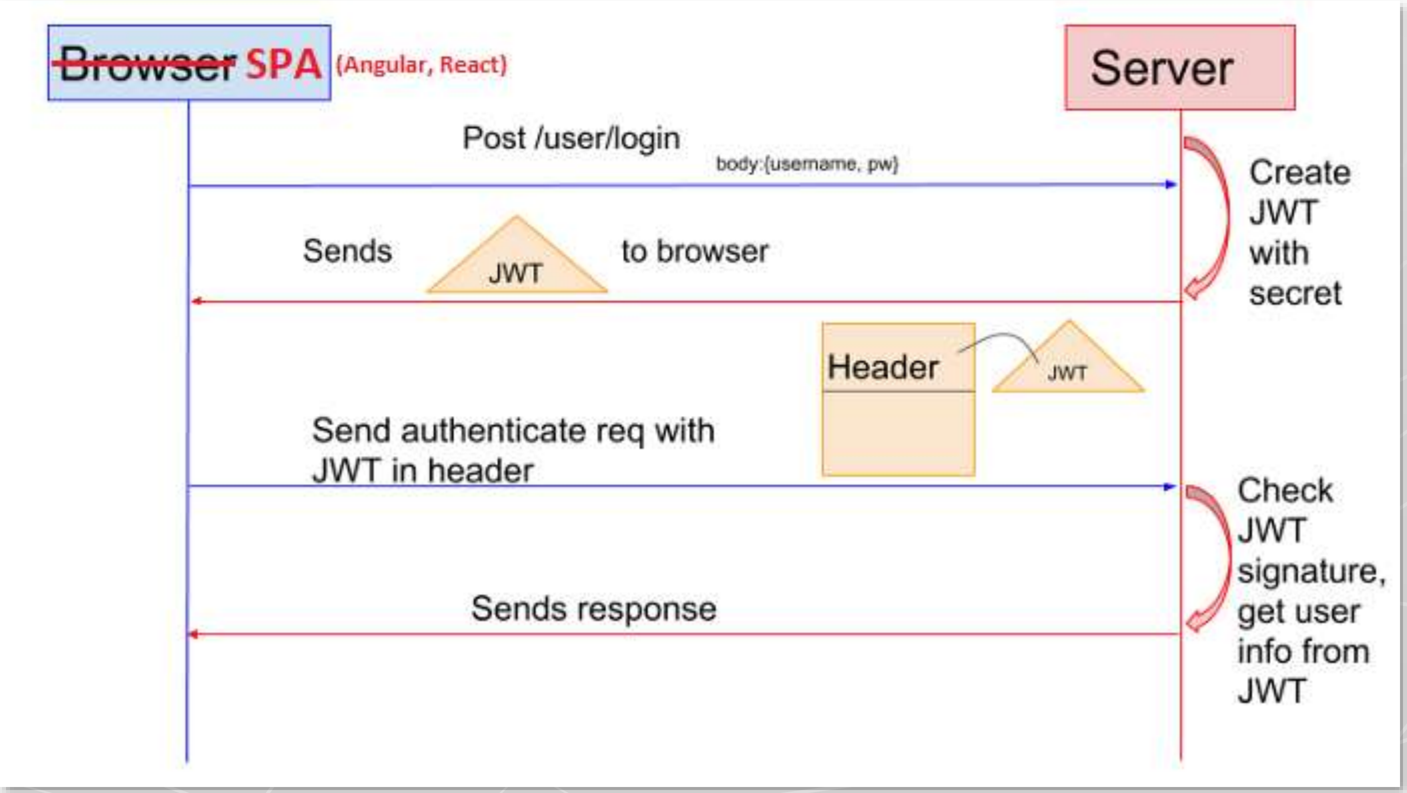
Week 9 – Authentication in Next.js

Agenda

- Review: Web API Security
- Authentication (Logging In)
- UI Considerations
- Pre-Built Libraries / Solutions

Securing a Web API

- WEB API:
  - No UI, no browser, no session
- JWT (JSON Web Token) – Token based authentication:
  - Similar to session based ~, but it's for WEB API



Week 9 Code Example

- Initial Projects:
  - Week 8: simple-API
    - resource: /api/vehicles , testing tools; Thunder Client, Postman
  - Week 9: vehicles-UI
    - Next.js app that consumes the simple-API
- Final Projects:
  - Week 8: simple-API-complete
    - /api/vehicles (secured with JWT), /api/register, /api/login, hashed password, users collection in MongoDB
  - Week 9: vehicles-UI-complete
    - Next.js app: login, home, vehicles pages/components and more…, that consumes the simple-API-complete which has been secured with JWT and incorporates JWT in the front-end web app)

Authentication (Logging In)

- "Authentication" Library - "/lib/authenticate.js"
  - Contains utility functions regarding logging in and using token (at client-side)

- "Login" Page - "/pages/login.js
  - Form Component - React Bootstrap
  - Controlled form with state user and password
  - Authenticating the User / Showing Errors

- "Vehicle" Page - "/pages/vehicles.js"
  - Adding an "Authorization" Header to the fetcher for useSWR

UI Considerations

- Incorporating JWT into front-end app
  - In addition to Authentication process, JWT can be used in the two aspects:
    - Client-side Authorization
    - Conditional menu/UI components (based on the values of payload in JWT)

- "Route Guard" Component
  - Creating a "Route Guard" Component - "/components/RouteGuard.js"
  - Updating the App (or MyApp) component - "/pages/_app.js"
  - Redirecting to "/login" if unauthenticated

- Updating the Navigation Component - "/components/Navigation.js"

Pre-Built Libraries / Solutions

- Iron-Session
  - Add a Protected Route "/pages/protectedTest.js"
  - Library name in package.json: {"iron-session": "^6.2.0", … …}

- NextAuth.js
  - Enabling Authentication
  - GitHub.com: /setting/"Developer Settings" … …
  - Library name in package.json: "next-auth"

The End