**FED-Angular-PWA Coding Assignment-6**

**Pre-requisite:** **You should have completed FED-Angular Coding Assignment-2 before you can work on this coding assignment.**

This assignment involves enabling Progressive Web App features for the application implemented for **FED-Angular Coding Assignment-2 (It is reproduced below once again for your reference).**  You need to understand the concepts of PWA explained as part of the Angular session **[ Refer Demo Code 25 - a25-pwa-app ]** and then implement.

Also, refer <https://angular.io/guide/service-worker-getting-started> to get a detailed understanding of enabling PWA features.

**Lighthouse –** To know how it looks, **Refer GoogleChrome\_Audit\_Lighthouse\_Screenshot.jpg**

* Auditing tool provided by Google to verify PWA features
* Can be accessed in Google Chrome under "Audits" tab after pressing F12 key or Ctrl-Shift-J.

Reason for running Lighthouse audit multiple times:

* First time, Lighthouse audit is run on a developmental normal Angular application without PWA features.
* Second time, Lighthouse audit is run on a developmental PWA enabled Angular application.
* Third time, Lighthouse audit is run on a production built PWA enabled Angular application.

**Note:** Complete PWA features will be enabled only on a production built Angular PWA application running on a cloud. In local host, HTTP traffic will not get redirected to HTTPS.

**Steps**

1. You might have already implemented code for **FED-Angular Coding Assignment-2.**
2. Run the above implemented application using **“ng serve”.** Using Lighthouse, run the audit to verify which PWA features are missing – **Take the first screenshot after moving the mouse to PWA round image.** The details about Fast and reliable, Installable, PWA Optimized should be displayed – **Refer PWA-Assignment-Screenshot-01-Angular.jpg**
3. Enable PWA for the application implemented for **FED-Angular Coding Assignment-2** by adding necessary packages required for PWA using the following command.
   1. **ng add @angular/pwa**  [ if the Angular project was created as default project for Assignment -2 implementation].

**(OR)**

* 1. **ng add @angular/pwa** **--project <projectname>** [ if the Angular project was created as a separate project for Assignment -2 implementation].

1. Run the application using **“ng serve”.** Using Lighthouse, run the audit to verify which PWA features are missing – **Take the second screenshot after moving the mouse to PWA round image.** The details about Fast and reliable, Installable, PWA Optimized should be displayed – **Refer PWA-Assignment-Screenshot-02-Angular.jpg**
2. Generate a production build of the PWA enabled application using the following command.
   1. **ng build --prod**  [ if the Angular project was created as default project for Assignment -2 implementation].

**(OR)**

* 1. **ng build <projectname> --prod** [ if the Angular project was created as a separate project for Assignment -2 implementation].

1. Change directory to the folder where the production built dist files have got created.
2. Run the Http server using **“http-server -p 8080 -c-1”.** In Google Chrome, in the URL give[**http://localhost:8080/index.html**](http://localhost:8080/index.html)**.** Using Lighthouse, run the audit to verify which PWA features are missing – **Take the third screenshot after moving the mouse to PWA round image.** The details about Fast and reliable, Installable, PWA Optimized should be displayed – **Refer PWA-Assignment-Screenshot-03-Angular.jpg**

**Note:** If you do not have http-server installed, install it by running **“npm install –g http-server”**.

After the implementation and testing of your application is complete, do the following:

1) Create a **zip of the "src" folder** and **“ngsw-config.json”** where you would have implemented all the above-mentioned features.

2) Send the above mentioned **3** Lighthouse Audit output screenshots and the "app" folder zip to below email IDs before the specified target date:

[sandhya.murali1@wipro.com](mailto:sandhya.murali1@wipro.com)

ananth.kashyap@wipro.com

[srinivasan.mahadevan@wipro.com](mailto:srinivasan.mahadevan@wipro.com)

[venkatachalam.subra@wipro.com](mailto:venkatachalam.subra@wipro.com)

raghavendran.sethumadhavan1@wipro.com

**Note 1: Very Important: In the subject line Copy paste the name of this assignment i.e. “YourEmployeeID-YourFullName-Angular-Assignment-06”. We filter the mails using this text in the subject line. If you do not use this subject line, it will not get filtered and your submission will be missed.**

**Note2: Just the zip of “src” folder and “ngsw-config.json” is enough, DO NOT zip the entire application folder structure and send.**

**FED Angular Coding Assignment 2 reproduced below again for your reference**

**FED-Angular Coding Assignment-2**

**Pre-requisite:** **You should have completed FED-Angular Coding Assignment-1 before you can work on this coding assignment.**

Practice the concepts and the relevant hands on exercises to complete this assignment.

**Refer the following screenshots files:**

**FED-Angular-Assignment-2 - InitialPage.jpg**

**FED-Angular-Assignment-2 - AfterAddingProduct.jpg**

Your application should have similar outputs.

1) Initial Page after the application is loaded

2) Page after adding the product to products list

On the **implementation of FED-Angular Coding Assignment-1**, you need to enhance with the following features.

1) The container component of Products component (i.e. AppComponent) should pass the company name to Products component. The Products component should receive it and display it in the "Products List" title as shown in Initial Page screenshot.

2) On adding a new product to the product list by providing the product name and quantity in the text box and clicking the "Add Product" button, the product name and quantity should be passed from the Products Component to the AppComponent and the AppComponent should display the recently added product as shown in AfterAddingProduct screenshot.

**Note 1:** **Product name and quantity should be passed from Products component to AppComponent. In case, you face difficulty in passing both, at least first try passing the product name only and display in AppComponent. After that explore how you can pass the Product object containing product name and quantity.**

**Note: 2:** **Regarding display of Recently added product by AppComponent, the initial page SHOULD NOT display the "Recently added product" information like shown in the InitialPage screenshot. Only after a product is added, it should get displayed. i.e. You should display it conditionally. Think of the concepts which were taught that you can use it for this purpose.**

3) Each component should display the various HTML elements in different colors using the styles specific to the components. Do not use global styles.