2.2 Components

This section will guide you to:

* Create Components in an Angular app
* Run an Angular app in your local machine

This lab has seven subsections, namely:

2.2.1 Defining the app component template in HTML

2.2.2 Defining the app component style using CSS

2.2.3 Generating product components

2.2.4 Generating header components

2.2.5 Composing complex components by combining simpler components

2.2.6 Defining the app component specifications using TypeScript

2.2.7 Running the store app in your local browser

**Step 2.2.1:** Defining the app component template in HTML

* Navigate to the *src* folder inside the *store-app* directory in your file explorer
* Navigate inside the folder named *app*
* Remove the file, *app.routing-module.ts*
* Open the file *app.component.html* in your code editor
* Enter the code below and save the file

**<div class="container">**

**<app-header></app-header>**

**<app-products></app-products>**

**</div>**

**Step 2.2.2:** Defining the app component style using CSS

* Navigate to the app folder within the src folder
* Open the file app.component.css in your code editor
* Enter the code below and save the file

**h1 {**

**color: blue;**

**background-color: lightgreen;**

**}**

**Step 2.2.3:** Generating product components

* Open your terminal and navigate to the app folder within the src folder
* Run the command *ng generate component products*
* Navigate within the generate folder products and open the file named products.component.ts
* Enter the code below and save the file

**import { Component } from '@angular/core';**

**@Component({**

**selector: 'app-products',**

**templateUrl: './products.component.html',**

**styleUrls: ['./products.component.css']**

**})**

**export class ProductsComponent {**

**productName = 'Samsung Galaxy S10';**

**productDescription = 'Description about Galaxy S10';**

**productPrice = 60000;**

**productIsAvailable = false;**

**onSave() {**

**console.log('Product saved...');**

**}**

**onSearch(e) {**

**console.log(e.target.value);**

**}**

**}**

* Open the file named products.component.html
* Enter the code below and save the file

**<h2>Products</h2>**

**<div class="card bg-light m-3">**

**<h4 class="card-header">{{ productName | uppercase }}</h4>**

**<div class="card-body">**

**<p class="card-text">{{ productDescription }}</p>**

**<p class="card-text"><strong>Price:</strong> <em>{{ productPrice | currency : 'INR' : 'symbol' }}</em></p>**

**<p class="card-text"><strong>Available?</strong> <em>{{ productIsAvailable ? 'Yes' : 'No' }}</em></p>**

**</div>**

**<div class="card-footer">**

**<button type="button" class="btn btn-warning btn-sm">**

**Delete**

**</button>**

**</div>**

**</div>**

**Step 2.2.4:** Generating header component

* Open your terminal and navigate to the app folder within the src folder
* Run the command *ng generate component header*
* Navigate within the generate folder header and open the file named header.component.ts
* Enter the code below and save the file

**import { Component } from "@angular/core";**

**@Component({**

**selector: 'app-header',**

**templateUrl: './header.component.html',**

**styleUrls: ['./header.component.css']**

**})**

**export class HeaderComponent {**

**today = Date.now();**

**}**

* Open the file named header.component.html
* Enter the code below and save the file

**<h1>My Store App</h1>**

**<p>Online store app</p>**

**<p>Date: {{ today | date : 'longDate' | uppercase }}</p>**

* Open the file named header.component.css
* Enter the code below and save the file

**h1 {**

**color: royalblue;**

**}**

**Step 2.2.5:** Composing complex components by combining simpler components

* Navigate to the app folder within the src folder
* Open the file app.component.ts in your code editor
* Enter the code below and save the file

**import { Component } from '@angular/core';**

**@Component({**

**selector: 'app-root',**

**templateUrl: './app.component.html',**

**styleUrls: ['./app.component.css']**

**})**

**export class AppComponent {**

**}**

* Open the file app.module.ts in your code editor
* Enter the code below and save the file

**import { BrowserModule } from '@angular/platform-browser';**

**import { NgModule } from '@angular/core';**

**import { FormsModule } from '@angular/forms';**

**import { AppComponent } from './app.component';**

**import { HeaderComponent } from './header/header.component';**

**import { ProductsComponent } from './products/products.component';**

**@NgModule({**

**declarations: [**

**AppComponent,**

**HeaderComponent,**

**ProductsComponent**

**],**

**imports: [**

**BrowserModule,**

**FormsModule**

**],**

**providers: [],**

**bootstrap: [AppComponent]**

**})**

**export class AppModule { }**

**Step 2.2.6:** Defining the app component specifications using TypeScript

* Navigate to the app folder within the src folder
* Open the file app.component.spec.ts in your code editor
* Enter the code below and save the file

**import { TestBed, async } from '@angular/core/testing';**

**import { AppComponent } from './app.component';**

**describe('AppComponent', () => {**

**beforeEach(async(() => {**

**TestBed.configureTestingModule({**

**declarations: [**

**AppComponent**

**],**

**}).compileComponents();**

**}));**

**it('should create the app', () => {**

**const fixture = TestBed.createComponent(AppComponent);**

**const app = fixture.debugElement.componentInstance;**

**expect(app).toBeTruthy();**

**});**

**it(`should have as title 'store-app'`, () => {**

**const fixture = TestBed.createComponent(AppComponent);**

**const app = fixture.debugElement.componentInstance;**

**expect(app.title).toEqual('store-app');**

**});**

**it('should render title in a h1 tag', () => {**

**const fixture = TestBed.createComponent(AppComponent);**

**fixture.detectChanges();**

**const compiled = fixture.debugElement.nativeElement;**

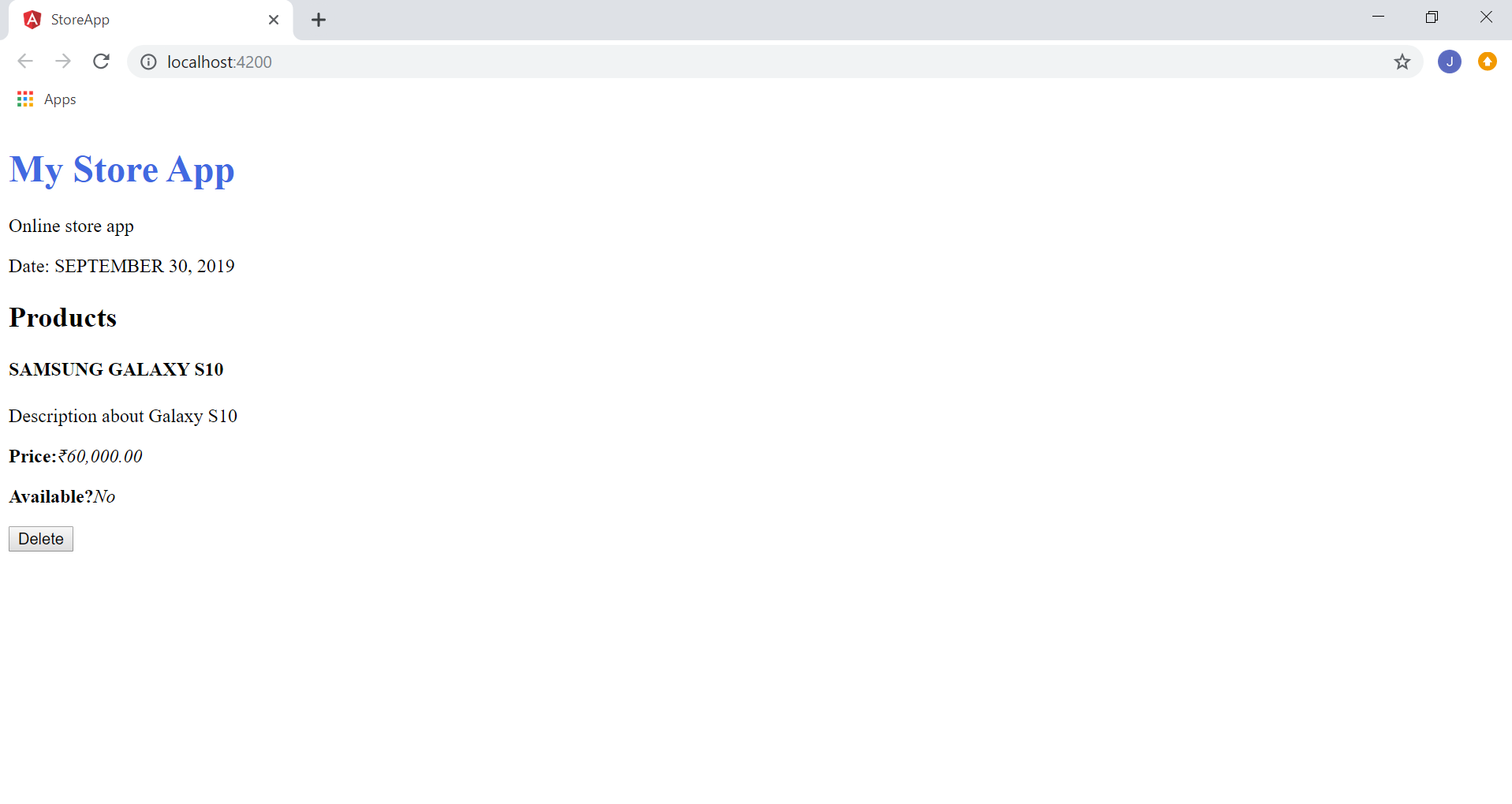
**expect(compiled.querySelector('h1').textContent).toContain('Welcome to store-app!');**

**});**

**});**

**Step 2.1.7:** Running the store app in your local browser

* Navigate to the app’s home directory
* Run *ng serve* to run the app
* The app will open in your default browser as shown below

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