Exercise 1

- Add a **<router-outlet>** to App component template.

    app.component.html

    ```
    <div class="main">
      <!-- Dynamic content goes here -->
      <router-outlet></router-outlet>
    </div>
    ```

- Import _**Home**_ and _**Phones**_ components into app.routing.ts.

    app.routing.ts

    ```
    import { HomeComponent } from './home/home.component';
    import { PhonesComponent } from './phones/phones.component';
    ```

- Add Routes to appRoutes array.

    app.routing.ts

    ```
    const appRoutes: Routes = [
        {
         path: 'home',
         component: HomeComponent
        },
        {
         path: 'phones',
         component: PhonesComponent
        },
        {
         path: '',
         redirectTo: '/home',
         pathMatch: 'full'
        }
    ];
    ```

- Add two routerLink elements to App component template

    ```
    <!-- Links for Components-->
      <a routerLink='/home' routerLinkActive="active">Home</a>
      <a routerLink='/phones' routerLinkActive="active">Phones</a>
    ```

Exercise 2

- Import PhoneDetail component into app.routing.ts

  app.routing.ts

  import { PhoneDetailComponent } from './phones/phone-detail.component';

- Add Route for PhoneDetail component (with route parameter) into appRoutes.

  app.routing.ts

  ```
  {
      path: 'phones/:id',
      component: PhoneDetailComponent
  }
  ```

- Create routerLinks to navigate to the PhoneDetails of each mobile phone listed in Phones component.

  phones/phones.component.ts

  ```
  <ul>
    <li *ngFor="let phone of phones">
     <a [routerLink]="['/phones/', phone.id]">{{phone.id}} : {{phone.name}}   [{{phone.quantity}}]</a>
     </li>
   </ul>
  ```

Exercise 3

- Import AuthGuard to app.routing.ts

  app.routing.ts

  import { AuthGuard } from './auth-guard.service';

- Add AuthGuard into appRoutingProviders array.

  app.routing.ts

  export const appRoutingProviders: any[] = [**AuthGuard**];

- For each Route that should use AuthGuard, include AuthGuard for the property called "canActivate" in Route.

  app.routing.ts

  {

    path: 'phones',

    component: PhonesComponent,

    canActivate: [AuthGuard]

  },

  {

    path: 'phones/:id',

    component: PhoneDetailComponent,

    canActivate: [AuthGuard]

  }

Exercise 4

- Import CanDeactivateGuard to app.routing.ts

  app.routing.ts

  import { CanDeactivateGuard } from './can-deactivate-guard.service';

- Add CanDeactivateGuard into appRoutingProviders array.

  app.routing.ts

  export const appRoutingProviders: any[] = [AuthGuard**, CanDeactivateGuard**];

- For each Route that should use CanDeactivateGuard, include CanDeactivateGuard for the property called "canDeactivate" in Route.

  app.routing.ts

  {

    path: 'phones/:id',

    component: PhoneDetailComponent,

    canActivate: [AuthGuard],

    canDeactivate: [CanDeactivateGuard]

  }