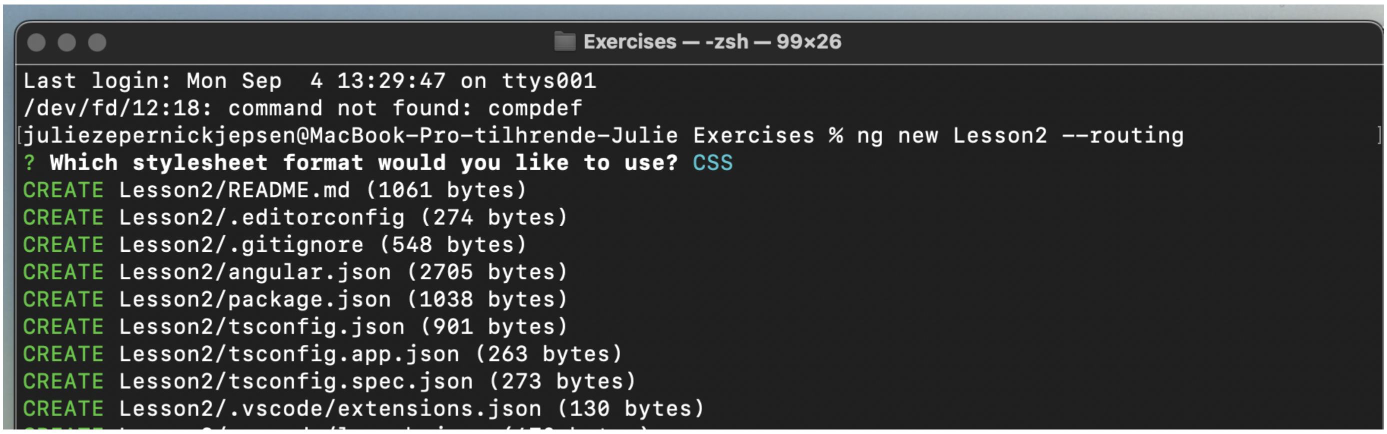
Exercies Lesson 2

Create a new workspace with routing

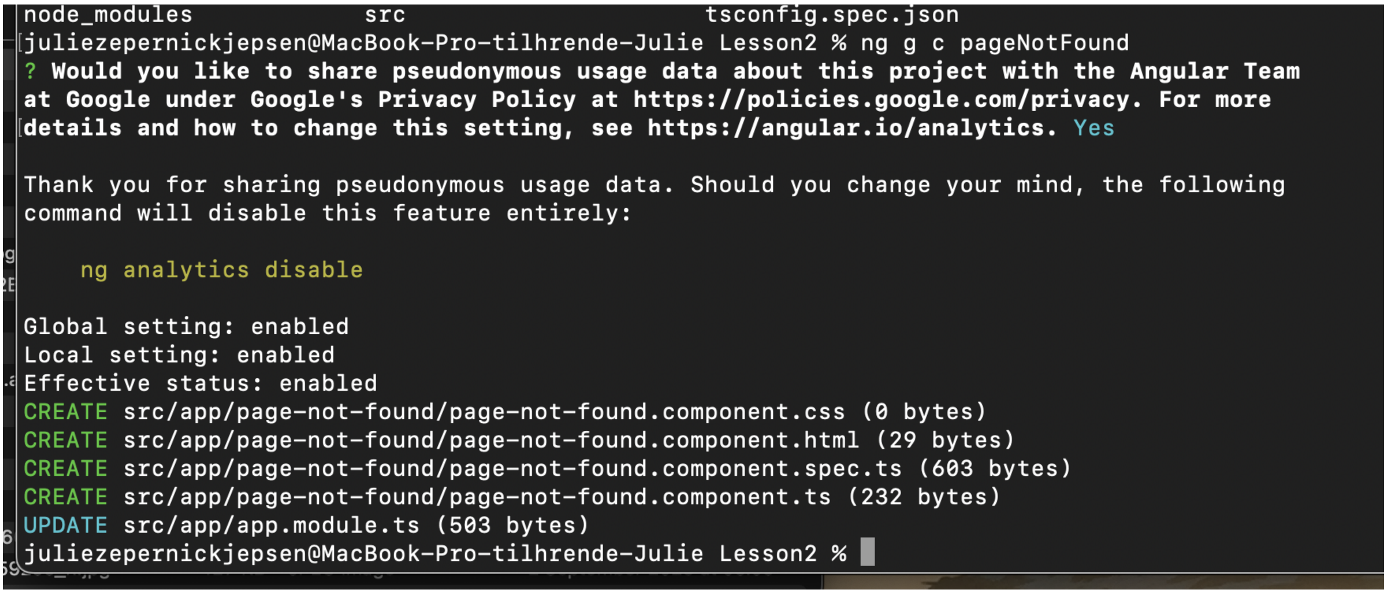
The first thing we need is a workspace with an application with a routing module

1. Generate a new workspace with routing using the CLI ng new <WORKSPACE_NAME> --routing(docs)



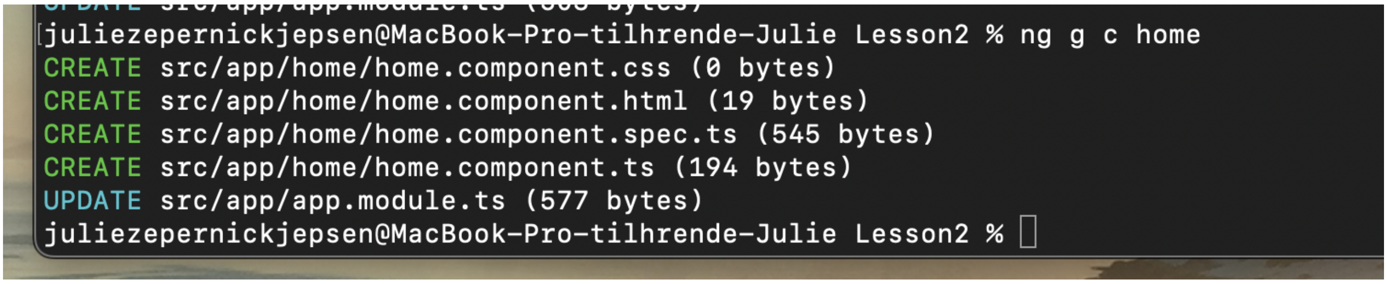
```
Last login: Mon Sep  4 13:29:47 on ttys001
/dev/fd/12:18: command not found: compdef
juliezepernickjepsen@MacBook-Pro-tilhrende-Julie Exercises % ng new Lesson2 --routing
? Which stylesheet format would you like to use? CSS
CREATE Lesson2/README.md (1061 bytes)
CREATE Lesson2/.editorconfig (274 bytes)
CREATE Lesson2/.gitignore (548 bytes)
CREATE Lesson2/angular.json (2705 bytes)
CREATE Lesson2/package.json (1038 bytes)
CREATE Lesson2/tsconfig.json (901 bytes)
CREATE Lesson2/tsconfig.app.json (263 bytes)
CREATE Lesson2/tsconfig.spec.json (273 bytes)
CREATE Lesson2/.vscode/extensions.json (130 bytes)
```

2. We will need a component to display, when users tries to navigate to an unknown route. Use the CLI to generate it with `ng g c pageNotFound`(docs)



```
node_modules            src                     tsconfig.spec.json
juliezepernickjepsen@MacBook-Pro-tilhrende-Julie Lesson2 % ng g c pageNotFound
? Would you like to share pseudonymous usage data about this project with the Angular Team
at Google under Google's Privacy Policy at https://policies.google.com/privacy. For more
details and how to change this setting, see https://angular.io/analytics. Yes

Thank you for sharing pseudonymous usage data. Should you change your mind, the following
command will disable this feature entirely:

    ng analytics disable

Global setting: enabled
Local setting: enabled
Effective status: enabled
CREATE src/app/page-not-found/page-not-found.component.css (0 bytes)
CREATE src/app/page-not-found/page-not-found.component.html (29 bytes)
CREATE src/app/page-not-found/page-not-found.component.spec.ts (603 bytes)
CREATE src/app/page-not-found/page-not-found.component.ts (232 bytes)
UPDATE src/app/app.module.ts (503 bytes)
juliezepernickjepsen@MacBook-Pro-tilhrende-Julie Lesson2 %
```

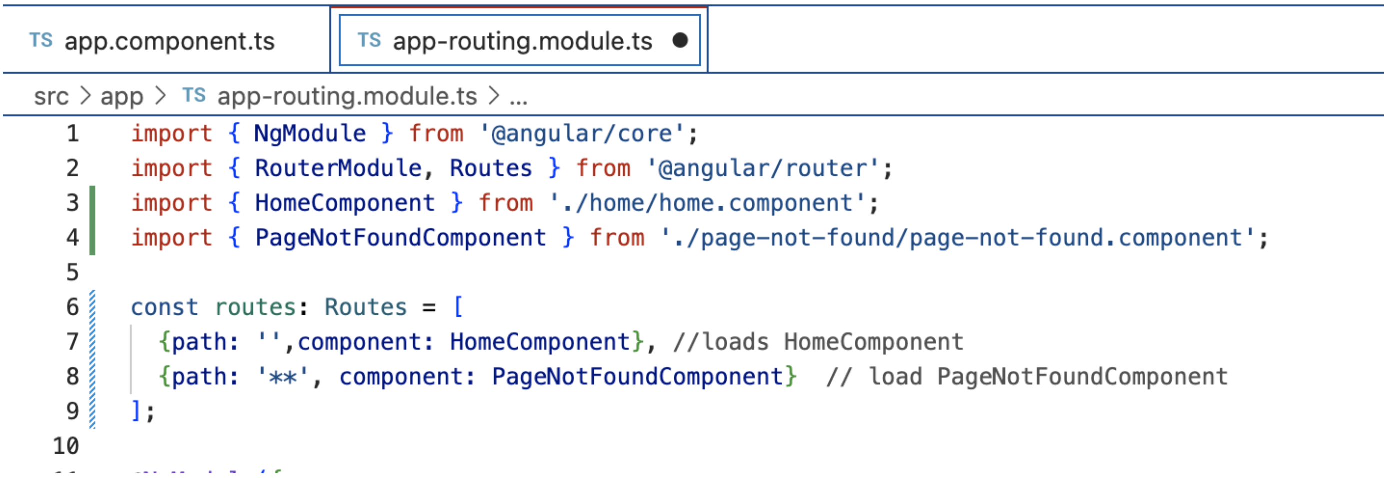
3. We'll add another component to use as the initial component to load with `ng g c home.



```
juliezepernickjepsen@MacBook-Pro-tilhrende-Julie Lesson2 % ng g c home
CREATE src/app/home/home.component.css (0 bytes)
CREATE src/app/home/home.component.html (19 bytes)
CREATE src/app/home/home.component.spec.ts (545 bytes)
CREATE src/app/home/home.component.ts (194 bytes)
UPDATE src/app/app.module.ts (577 bytes)
juliezepernickjepsen@MacBook-Pro-tilhrende-Julie Lesson2 %
```

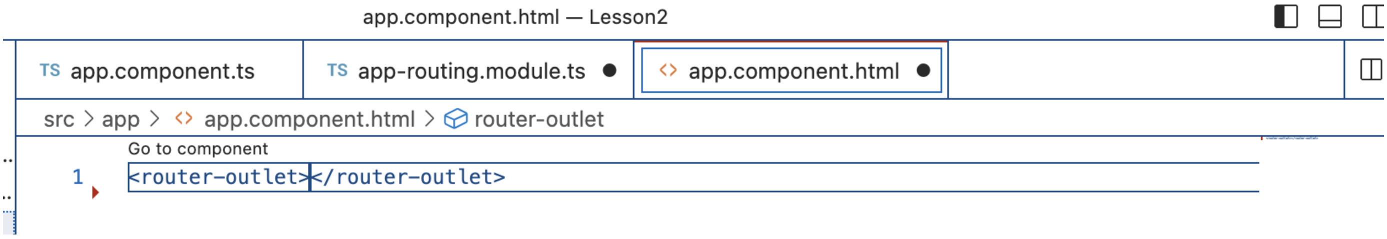
Add root module routes

1. Go to ./src/app/app-routing.module.ts and add the following paths(docs)
   '' which loads HomeComponent
   '**' which loads PageNotFoundComponent


TS app.component.ts
TS app-routing.module.ts ●
src > app > TS app-routing.module.ts > ...

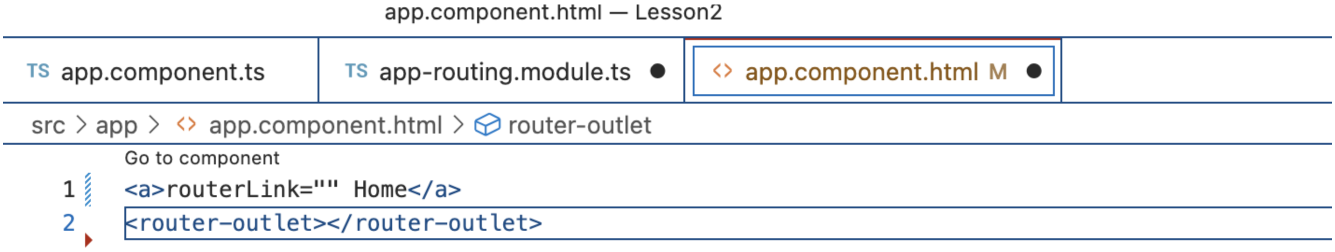
```
import { NgModule } from '@angular/core';
import { RouterModule, Routes } from '@angular/router';
import { HomeComponent } from './home/home.component';
import { PageNotFoundComponent } from './page-not-found/page-not-found.component';

const routes: Routes = [
  {path: '',component: HomeComponent}, //loads HomeComponent
  {path: '**', component: PageNotFoundComponent}  // load PageNotFoundComponent
];

```

2. Go to ./src/app/app.component.html and remove the auto-generated code, and add an outlet(docs) with


app.component.html — Lesson2
TS app.component.ts
TS app-routing.module.ts ●
<> app.component.html ●
src > app > <> app.component.html > router-outlet
Go to component

```
<router-outlet></router-outlet>
```

3. Add a link(docs) to '' above the outlet

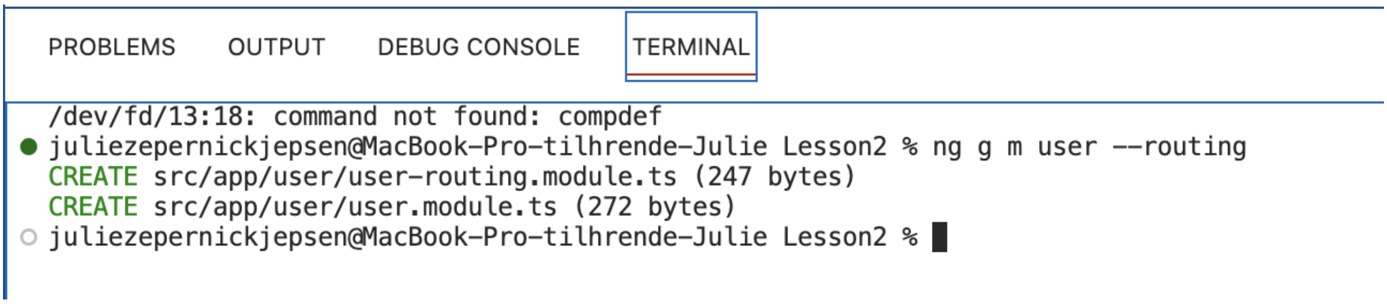

app.component.html — Lesson2
TS app.component.ts
TS app-routing.module.ts ●
<> app.component.html M ●
src > app > <> app.component.html > router-outlet
Go to component

```
<a>routerLink="" Home</a>
<router-outlet></router-outlet>
```

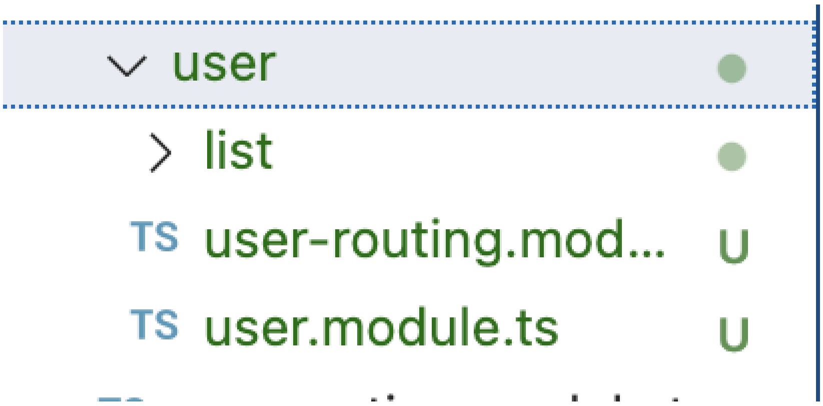
Create a new module

Let us create a new module to encapsulate all user functionality, so we can use lazy-loading(docs) to only deliver it to users who finds it interesting. Additionally, we will add routing to the module

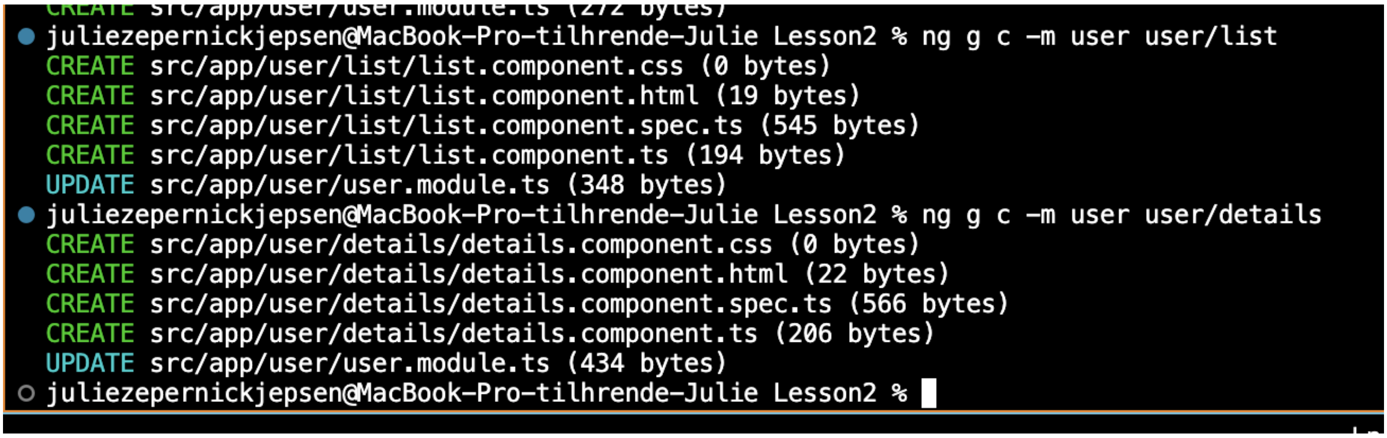
- Back to the CLI and generate a module with routing(docs): ng g m user --routing



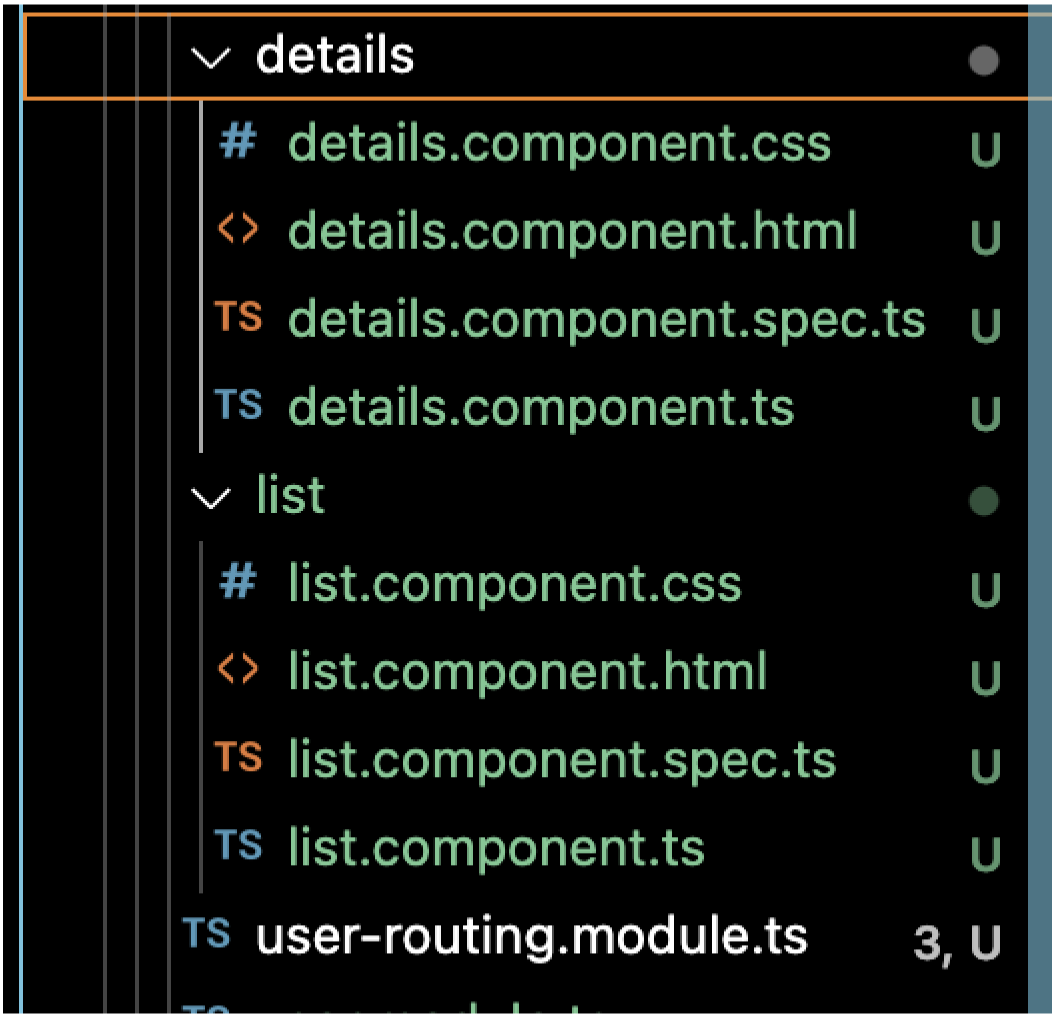
```
/dev/fd/13:18: command not found: compdef
● juliezepernickjepsen@MacBook-Pro-tilhrende-Julie Lesson2 % ng g m user --routing
  CREATE src/app/user/user-routing.module.ts (247 bytes)
  CREATE src/app/user/user.module.ts (272 bytes)
○ juliezepernickjepsen@MacBook-Pro-tilhrende-Julie Lesson2 %
```



- We will need a list and details component, so we generate those with the CLI: ng g c -m user user/list and ng g c -m user user/details

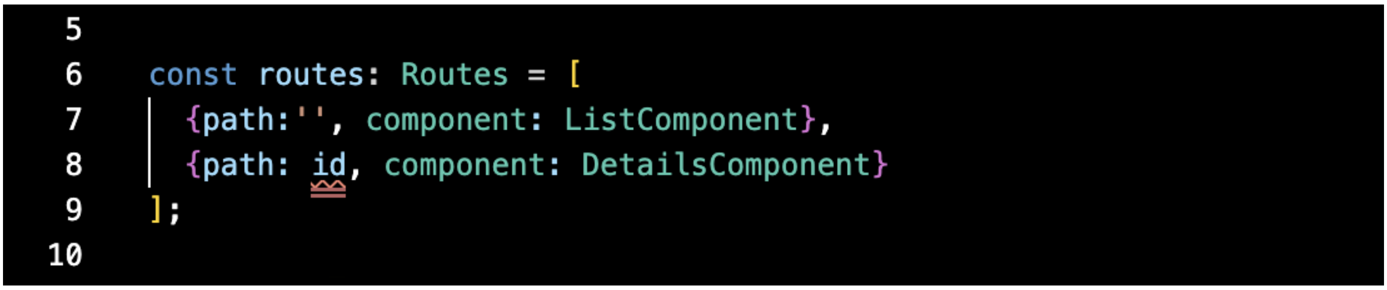


```
  CREATE src/app/user/user.module.ts (272 bytes)
● juliezepernickjepsen@MacBook-Pro-tilhrende-Julie Lesson2 % ng g c -m user user/list
  CREATE src/app/user/list/list.component.css (0 bytes)
  CREATE src/app/user/list/list.component.html (19 bytes)
  CREATE src/app/user/list/list.component.spec.ts (545 bytes)
  CREATE src/app/user/list/list.component.ts (194 bytes)
  UPDATE src/app/user/user.module.ts (348 bytes)
● juliezepernickjepsen@MacBook-Pro-tilhrende-Julie Lesson2 % ng g c -m user user/details
  CREATE src/app/user/details/details.component.css (0 bytes)
  CREATE src/app/user/details/details.component.html (22 bytes)
  CREATE src/app/user/details/details.component.spec.ts (566 bytes)
  CREATE src/app/user/details/details.component.ts (206 bytes)
  UPDATE src/app/user/user.module.ts (434 bytes)
○ juliezepernickjepsen@MacBook-Pro-tilhrende-Julie Lesson2 %
```



```
∨ details                              ●
    # details.component.css            U
    <> details.component.html          U
    TS details.component.spec.ts       U
    TS details.component.ts            U
∨ list                                 ●
    # list.component.css               U
    <> list.component.html             U
    TS list.component.spec.ts          U
    TS list.component.ts               U
TS user-routing.module.ts           3, U
```

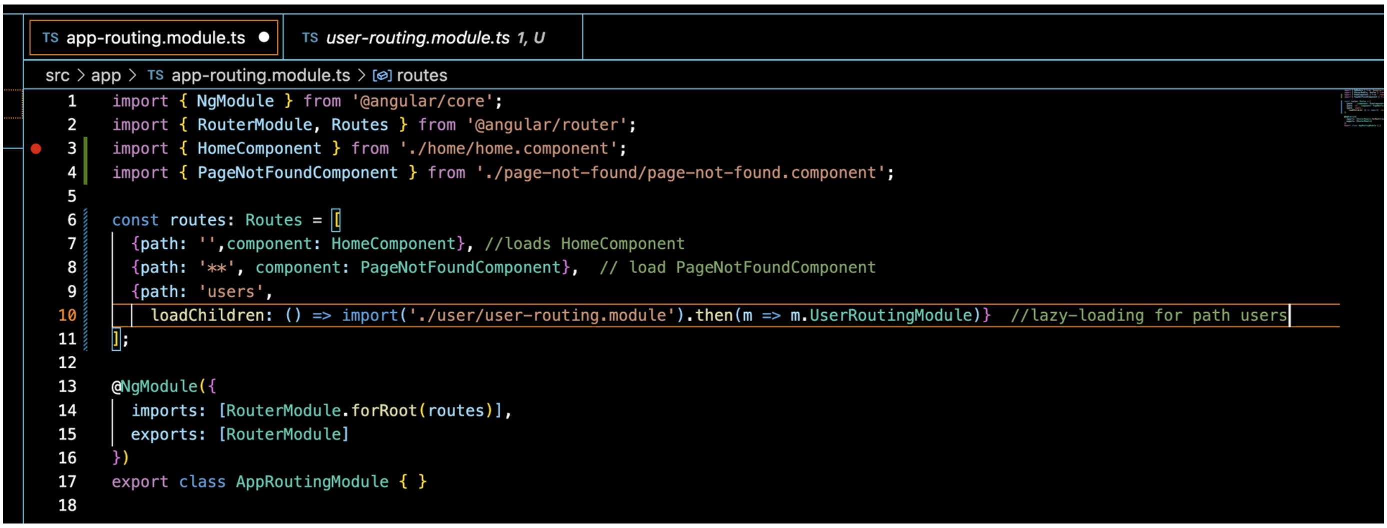
- Go to ./src/app/user/user-routing.module.ts and add paths for the newly created components:
  '' which loads ListComponent
  :id which loads DetailsComponent



```
const routes: Routes = [
  {path:'', component: ListComponent},
  {path: id, component: DetailsComponent}
];
```

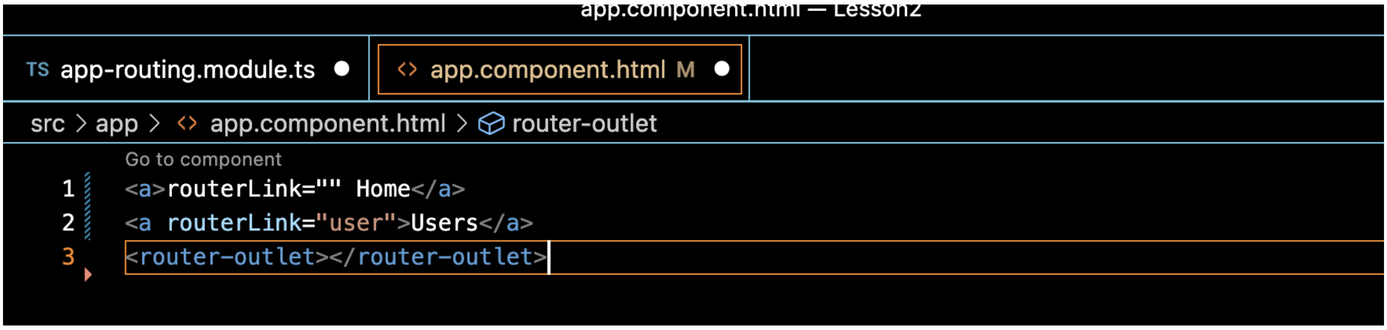
Setup lazy-loading for User module

- Go to ./src/app/app-routing.module.ts and add lazy-loading(docs) for path 'users'


TS app-routing.module.ts ●
TS user-routing.module.ts 1, U
src > app > TS app-routing.module.ts > routes

```
import { NgModule } from '@angular/core';
import { RouterModule, Routes } from '@angular/router';
import { HomeComponent } from './home/home.component';
import { PageNotFoundComponent } from './page-not-found/page-not-found.component';

const routes: Routes = [
  {path: '',component: HomeComponent}, //loads HomeComponent
  {path: '**', component: PageNotFoundComponent},  // load PageNotFoundComponent
  {path: 'users',
    loadChildren: () => import('./user/user-routing.module').then(m => m.UserRoutingModule)}  //lazy-loading for path users
];

@NgModule({
  imports: [RouterModule.forRoot(routes)],
  exports: [RouterModule]
})
export class AppRoutingModule { }

```

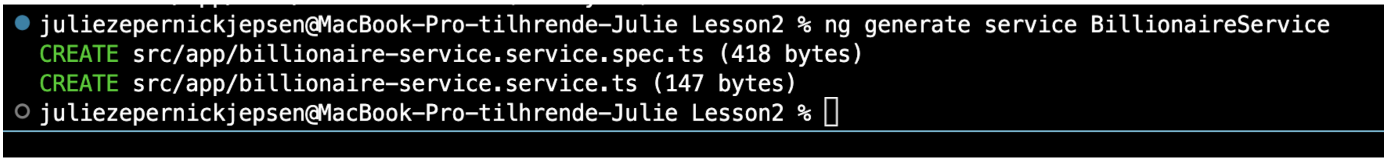
- Add a link(docs) to 'users' in ./src/app/app.component.html


app.component.html — Lesson2
TS app-routing.module.ts ●
<> app.component.html M ●
src > app > <> app.component.html > router-outlet
Go to component

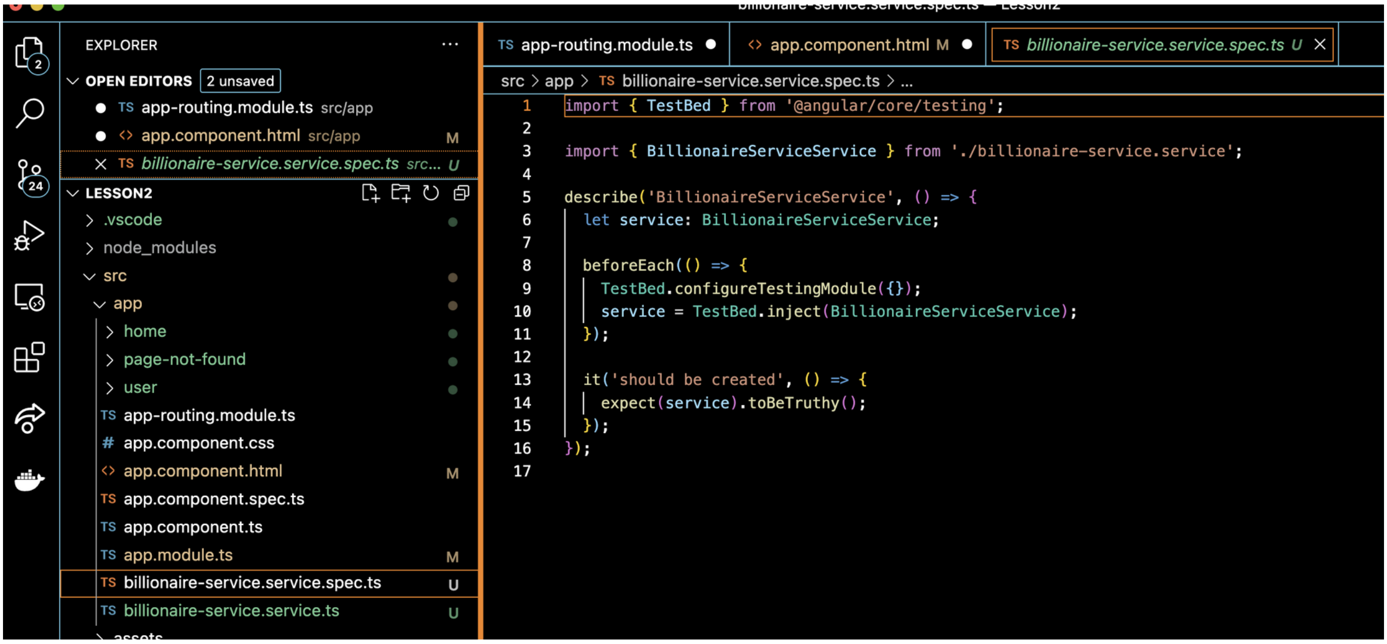
```
<a>routerLink="" Home</a>
<a routerLink="user">Users</a>
<router-outlet></router-outlet>
```

Binding everything together

Generate a service named BillionaireService in the root module and add the following content:

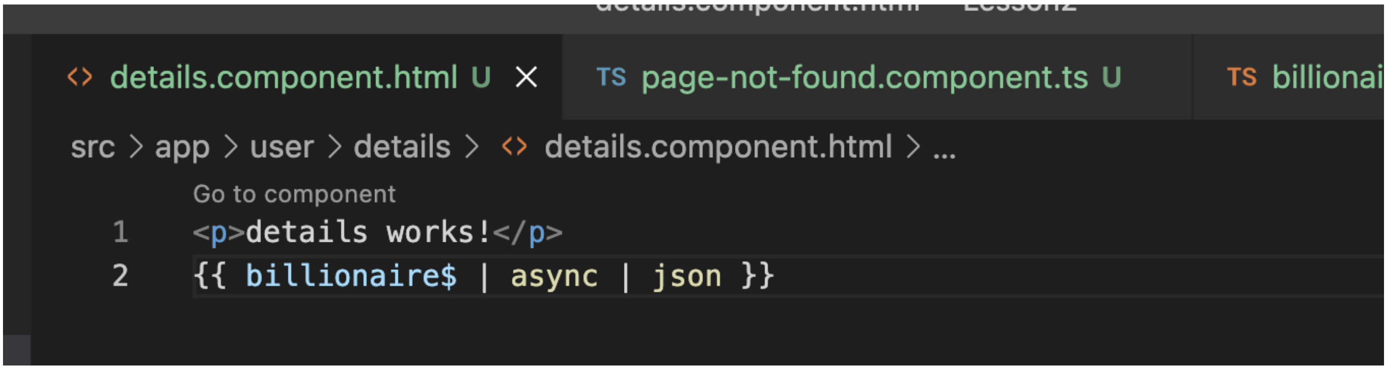


```
● juliezepernickjepsen@MacBook-Pro-tilhrende-Julie Lesson2 % ng generate service BillionaireService
  CREATE src/app/billionaire-service.service.spec.ts (418 bytes)
  CREATE src/app/billionaire-service.service.ts (147 bytes)
○ juliezepernickjepsen@MacBook-Pro-tilhrende-Julie Lesson2 % 
```


billionaire-service.service.spec.ts — Lesson2
EXPLORER
OPEN EDITORS 2 unsaved
● TS app-routing.module.ts src/app
● <> app.component.html src/app M
× TS billionaire-service.service.spec.ts src... U
LESSON2
> .vscode
> node_modules
∨ src
∨ app
> home
> page-not-found
> user
TS app-routing.module.ts
# app.component.css
<> app.component.html M
TS app.component.spec.ts
TS app.component.ts
TS app.module.ts M
TS billionaire-service.service.spec.ts U
TS billionaire-service.service.ts U
> assets
TS app-routing.module.ts ●
<> app.component.html M ●
TS billionaire-service.service.spec.ts U ×
src > app > TS billionaire-service.service.spec.ts > ...

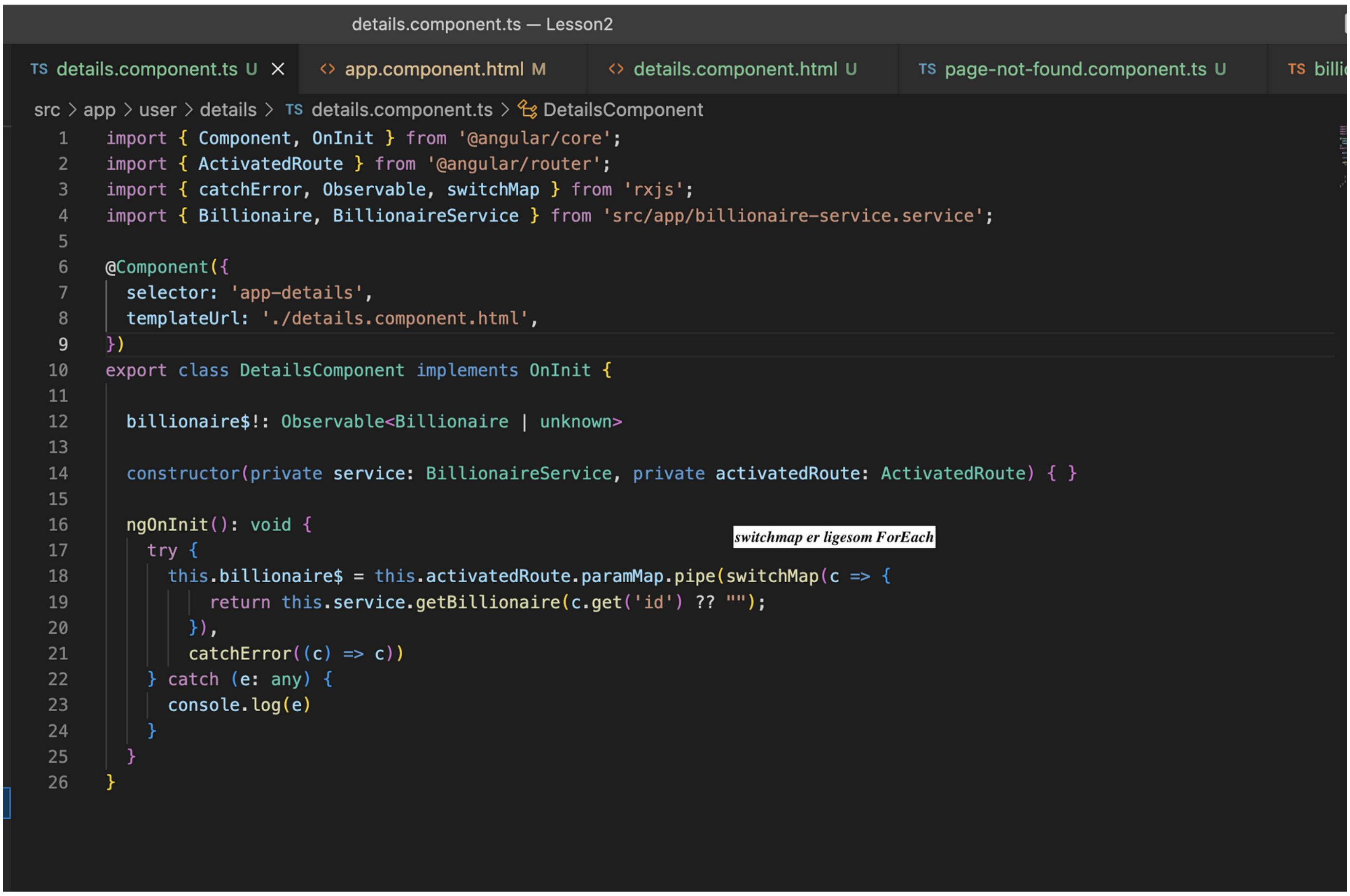
```
import { TestBed } from '@angular/core/testing';

import { BillionaireServiceService } from './billionaire-service.service';

describe('BillionaireServiceService', () => {
  let service: BillionaireServiceService;

  beforeEach(() => {
    TestBed.configureTestingModule({});
    service = TestBed.inject(BillionaireServiceService);
  });

  it('should be created', () => {
    expect(service).toBeTruthy();
  });
});

```

2. Print out Billionaire[] in ./src/app/user/list/list.component.html using *ngForOf(docs) directive


details.component.html — Lesson2
details.component.html U ×
TS page-not-found.component.ts U
TS billionai
src > app > user > details > details.component.html > ...
Go to component

```html
<p>details works!</p>
{{ billionaire$ | async | json }}
```

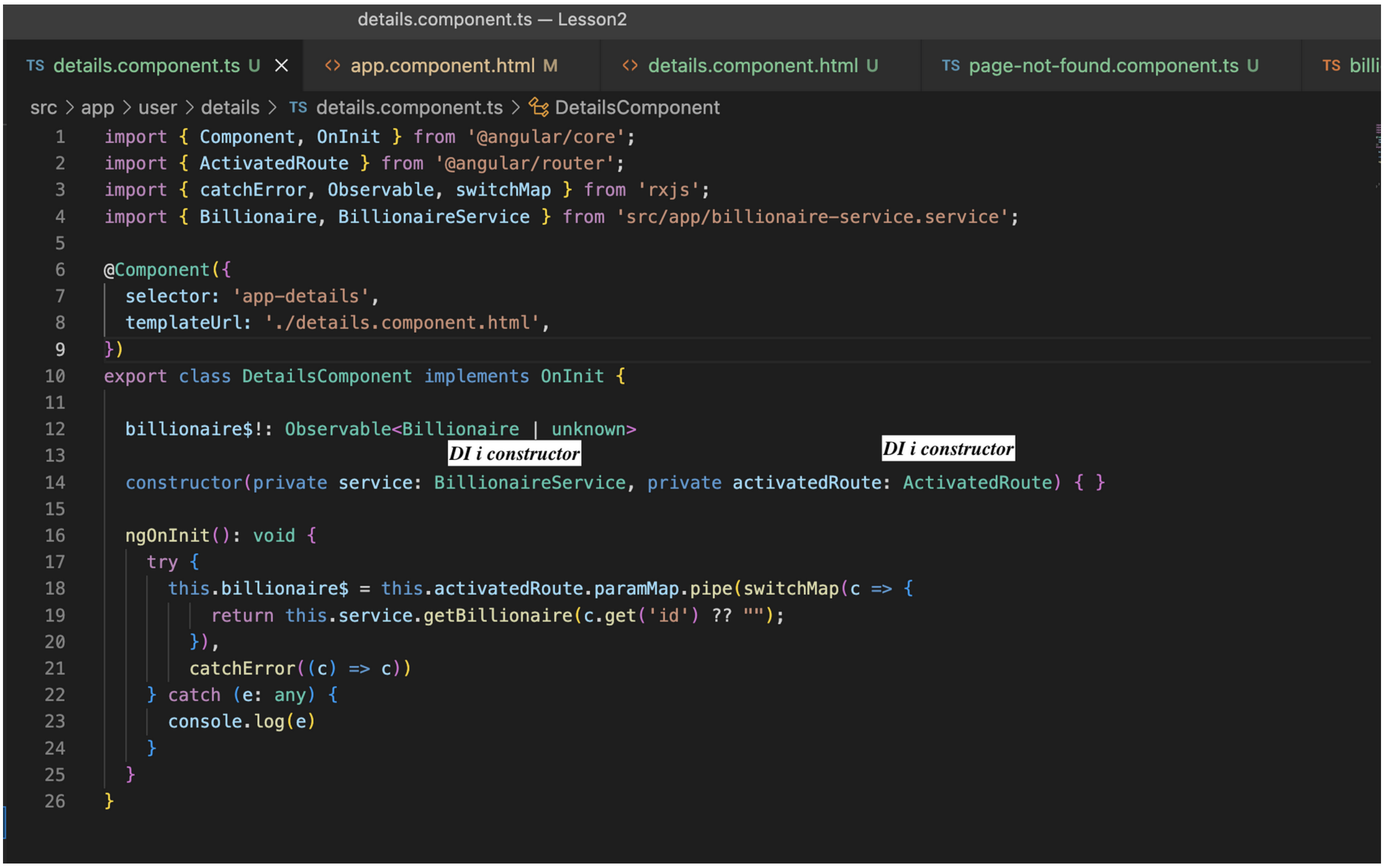
3. For each element printed, add a link to details/UID Hint: Use the local variable index(docs) to generate simple IDs for the entries


details.component.ts — Lesson2
TS details.component.ts U ×
app.component.html M
details.component.html U
TS page-not-found.component.ts U
TS billi
src > app > user > details > TS details.component.ts > DetailsComponent

```typescript
import { Component, OnInit } from '@angular/core';
import { ActivatedRoute } from '@angular/router';
import { catchError, Observable, switchMap } from 'rxjs';
import { Billionaire, BillionaireService } from 'src/app/billionaire-service.service';

@Component({
  selector: 'app-details',
  templateUrl: './details.component.html',
})
export class DetailsComponent implements OnInit {

  billionaire$!: Observable<Billionaire | unknown>

  constructor(private service: BillionaireService, private activatedRoute: ActivatedRoute) { }

  ngOnInit(): void {
    try {
      this.billionaire$ = this.activatedRoute.paramMap.pipe(switchMap(c => {
        return this.service.getBillionaire(c.get('id') ?? "");
      }),
      catchError((c) => c))
    } catch (e: any) {
      console.log(e)
    }
  }
}
```

switchmap er ligesom ForEach

4. Retrieve the Billionaire in DetailsComponent Hint: Inject SharedService and ActivatedRoute(docs) into the component


details.component.ts — Lesson2
TS details.component.ts U
app.component.html M
details.component.html U
TS page-not-found.component.ts U
TS billi
src > app > user > details > TS details.component.ts > DetailsComponent

```
import { Component, OnInit } from '@angular/core';
import { ActivatedRoute } from '@angular/router';
import { catchError, Observable, switchMap } from 'rxjs';
import { Billionaire, BillionaireService } from 'src/app/billionaire-service.service';

@Component({
  selector: 'app-details',
  templateUrl: './details.component.html',
})
export class DetailsComponent implements OnInit {

  billionaire$!: Observable<Billionaire | unknown>

  constructor(private service: BillionaireService, private activatedRoute: ActivatedRoute) { }

  ngOnInit(): void {
    try {
      this.billionaire$ = this.activatedRoute.paramMap.pipe(switchMap(c => {
          return this.service.getBillionaire(c.get('id') ?? "");
        }),
        catchError((c) => c))
    } catch (e: any) {
      console.log(e)
    }
  }
}
```

DI i constructor

DI i constructor