## Project

1. Buat project baru dengan nama "umn-homes"

```
D:\ionic-course-umn>ionic start umn-homes blank
```

2. Buat page yang akan kita gunakan:

```
D:\ionic-course-umn\umn-homes>ionic g page auth_

D:\ionic-course-umn\umn-homes>ionic g page places_

D:\ionic-course-umn\umn-homes>ionic g page places/discover_

D:\ionic-course-umn\umn-homes>ionic g page places/discover/place-detail_

D:\ionic-course-umn\umn-homes>ionic g page places/offers

D:\ionic-course-umn\umn-homes>ionic g page places/offers

D:\ionic-course-umn\umn-homes>ionic g page places/offers/new-offer

D:\ionic-course-umn\umn-homes>ionic g page places/offers/edit-offer

D:\ionic-course-umn\umn-homes>ionic g page places/offers/offer-bookings_

D:\ionic-course-umn\umn-homes>ionic g page bookings_
```

3. Set routing modules menjadi seperti berikut.

```
app-routing.module.ts ×

vuntitled (workspace)

umn-homes > src > app > 10 app-routing.module.ts > [@]routes

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

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

import { PreloadAllModules, RouterModule, Routes } from '@angular/router';

const routes: Routes = [

{ path: '', redirectTo: 'places', pathMatch: 'full' },

{ path: 'auth', loadChildren: './auth/auth.module#AuthPageModule' },

{ path: 'places', loadChildren: './places/places.module#PlacesPageModule' },

{ path: 'bookings', loadChildren: './bookings/bookings.module#BookingsPageModule' },

app.component.ts

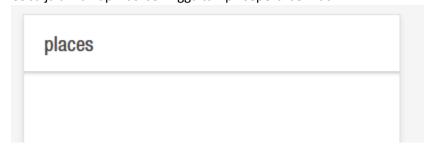
app.component.ts

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```

4. Coba jalankan aplikasi sehingga tampil seperti berikut



5. Tambahkan kode berikut pada places.page.ts

```
EXPLORER
                                   places.page.html ×
                                  🧿 umn-homes > src > app > places > 🥫 places.page.html > �io
UNTITLED (WORKSPACE)
     miii ahh
    > 📑 auth
                                          <ion-toolbar>
    > bookings
                                            <ion-title>Places</ion-title>
                                          </ion-toolbar>
    places
                                        </ion-header>
      > 🖿 discover
      > offers
        places.module.ts
        places.page.html / U
                                            <ion-tab-bar slot="bottom">
                                              <ion-tab-button tab="discover">
        places.page.scss
                                                <ion-label>Discover</ion-label>
        places.page.spec.ts U
                                                <ion-icon name="search"></ion-icon>
        g places.page.ts
                                              </ion-tab-button>
                                              <ion-tab-button tab="offers">
       app-routing.modu... M
                                                <ion-label>Offers</ion-label>
       app.component.html
                                              <ion-icon name="card" |
</ion-tab-button>
                                  16
       g app.component.scss
       app.component.spec.ts
       app.component.ts
                                          </ion-tabs>
                                        </ion-content>
       app.module.ts
```

## 6. Lihat hasilnya:



7. Buat file places-routing.module.ts dan tambahkan kode berikut:

```
🛭 places-routing.module.ts 🗡

② umn-homes > src > app > places > ② places-routing.module.ts > [@]routes
1   import { NgModule } from '@angular/core';
2   import { RouterModule } from '@angular/router';
3   import { PlacesPage } from './places.page';

  UNTITLED (WORKSPACE)

∨ O umn-homes

   > 📭 e2e
   > node modules
   ∨ 🖝 src
                                               const routes: Routes = [

√ Image: app

                                                         component: PlacesPage,
      > bookings
                                                         children: [

→ Image
→ places

       > 🖿 discover
                                                                   path: 'discover',
                                                                   children: [
      > offers
                                                                            loadChildren: './discover/discover.module#DiscoverPageModule'
         ■ places.page.html U

places.page.scss U
                                                                            path: ':placeId',
loadChildren: './discover/place-detail/place-detail.module#PlaceDetailModule'
        app-routing.modu... M
app.component.html
        g app.component.scss
                                                                  path: 'offers',
children: [
        app.component.spec.ts
         app.component.ts
         app.module.ts
    > 📭 assets
                                                                            loadChildren: './offers/offers.module#OffersPageModule'
    > 🔣 environments
    > 📴 theme
                                                                            path: 'new',
       global.scss
                                                                            loadChildren: './offers/new-offer/new-offer.module#NewOfferPageModule'
> OUTLINE
  EXPLORER
                                     places-routing.module.ts ×
  UNTITLED (WORKSPACE)

    umn-homes > src > app > places > ♥ places-routing.module.ts > № routes

                                                                         path: 'edit/:placeId',
loadModule: './offers/edit-offer/edit-offer.module#EditOfferPageModule'
   > 📭 e2e
   > node_modules
   ∨ 🖝 src
    path: ':placeId',
loadModule: './offers/offer-bookings/offer-bookings.module#OfferBookingsPageModule'
      > 🛅 auth
      > bookings

✓ Implaces

      > 🖿 discover
      > offers
         places.module.ts U
places.page.html U
                                              path: ,
redirectTo: '/places/tabs/discover',
pathMatch: 'full'
         g places.page.scss U
         📆 places.page.ts
                                             @NgModule({
         app-routing.modu... M
                                                  imports: [RouterModule.forChild(routes)],
        app.component.html
                                                 exports: [RouterModule]
           app.component.scss
         app.component.spec.ts
        app.component.ts
                                      59 export class PlacesRoutingModule {}
         app.module.ts
```

8. Modifikasi kode places.module.ts menjadi seperti berikut:

```
EXPLORER
                                       places.module.ts ×
V UNTITLED (WORKSPACE)

    umn-homes > src > app > places > ♥ places.module.ts > ♥ PlacesPageModule.

                                            import { NgModule } from '@angular/core';
import { CommonModule } from '@angular/common';

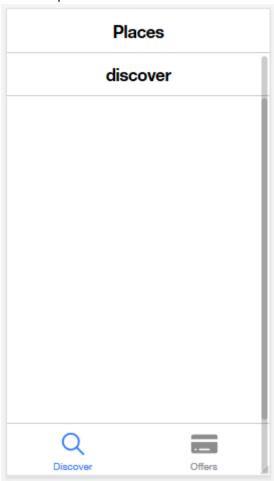
∨ ○ umn-homes

   > 时 e2e
   > node_modules
                                            import { IonicModule } from '@ionic/angular';
   ∨ 麻 src
                                            import { PlacesPage } from './places.page';
import { PlacesRoutingModule } from './places-routing.module';
    v 💷 app
     > 🌇 auth
     > bookings
                                            @NgModule({
     imports: [
      > iii discover
                                               CommonModule,
                                               IonicModule,
      > offers
                                             PlacesRoutingModule
         places-routing.m... U
                                            declarations: [PlacesPage]

■ places.page.html U

         places.page.scss
                                            export class PlacesPageModule {}
```

9. Lihat tampilan di browser:



10. Modifikasi places-routing.module.ts menjadi seperti berikut:

```
EXPLORER
                                                                                                                                                                                                                     places-routing.module.ts \times
UNTITLED (WORKSPACE)

⟨ umn-homes > src > app > places > ⟨ places-routing.module.ts > ⟨ places > ⟨ places > routing.module.ts > ⟨ places > ⟨ places > value | p
                                                                                                                                                                                                                                                      import { NgModule } from '@angular/core';

∨ ○ umn-homes

                                                                                                                                                                                                                                                      import { RouterModule } from '@angular/router';
import { PlacesPage } from './places.page';
        > 📦 e2e
        > node_modules
        ∨ 麻 src
                                                                                                                                                                                                                                                    const routes: Routes = [
              v 📠 app
                                                                                                                                                                                                                                                                                                         path: 'tabs',
                       > 📑 auth
                                                                                                                                                                                                                                                                                                           component: PlacesPage,
                     > bookings
                                                                                                                                                                                                                                                                                                           children: [

✓ Image: Value of the place of the plac
                            > iii discover
                                                                                                                                                                                                                                                                                                                                   },
                            > offers
                                                                                                                                                                                                                                                                                                                                },
                                              places.module.ts
                                                                                                                                                                                                                                                                                                                                                            path: '',
                                            ■ places.page.html U
                                                                                                                                                                                                                                                                                                                                                             redirectTo: '/places/tabs/discover',
                                           places.page.scss
                                                                                                                                                                                                                                                                                                                                                             pathMatch: 'full'
                                            places.page.spec.ts U
                                                                                                                                                                                                                                                                                                        ]
                                          places.page.ts
                                       app-routing.modu... M
                                     app.component.html
                                                                                                                                                                                                                                                                                                           path: '',
                                                                                                                                                                                                                                                                                                         redirectTo: '/places/tabs/discover',
                                     g app.component.scss
                                                                                                                                                                                                                                                                                                         pathMatch: 'full'
                                     app.component.spec.ts
                                     app.component.ts
                                                                                                                                                                                                                                                      ];
                                        app.module.ts
```

11. Modifikasi places.page.html menjadi seperti berikut:

```
EXPLORER
                                  places.page.html X
UNTITLED (WO... 🖰 🖆 🖰

    umn-homes > src > app > places > 
    places.page.html > 
    ⇔

                                       ion-tabs>
                                  1
   places
                                         <ion-tab-bar slot="bottom">
    > iii discover
                                           <ion-tab-button tab="discover">
    > offers
                                             <ion-label>Discover</ion-label>
       places-routing.m...
                                              <ion-icon name="search"></ion-icon>
                                           </ion-tab-button>
       places.module.ts
                                           <ion-tab-button tab="offers">
       places.page.html
                                              <ion-label>Offers</ion-label>
       places.page.scss
                                              <ion-icon name="card"></ion-icon>
       places.page.spec.ts U
                                           </ion-tab-button>
                                         </ion-tab-bar>
       places.page.ts
                                       </ion-tabs>
      👂 app-routing.modu... M
```

12. Lihat hasilnya di browser



13. Buat service untuk menampung data

```
D:\ionic-course-umn\umn-homes>ionic generate service places/places
```

14. Buat file place.model.ts dan tambahkan kode berikut.

```
place.model.ts ×
 EXPLORER
V UNTITLED (WO... 🖰 🖆 ひ
                                    🧿 umn-homes > src > app > places > 📆 place.model.ts > 😭 Pl
                                            export class Place {
     places
                                                constructor(
      > iii discover
                                                    public id: string,
public title: string,
        offers
                                                    public description: string,
                                                    public imageUrl: string,
         places-routing.m... U
                                                    public price: number
            places.module.ts
                                                ) {}
            places.page.html
            places.page.scss
```

15. Tambahkan kode berikut pada places.services.ts

```
EXPLORER
                                places.service.ts ×
                                   umn-homes > src > app > places > 👂 places.service.ts > 😭 PlacesService > 🔑 places
UNTITLED (WORKSPACE)
          aiscover.page.nt... u
                                        @Injectable({
        discover.page.scss U
                                          providedIn: 'root'
        discover.page.sp... U
                                        })
                                           ort class PlacesService {
        discover.page.ts U
     > offers
                                          private _places: Place[] = [
  new Place(
       g place.model.ts
       places-routing.m... U
                                              'p1',
       places.module.ts
                                              'Gading Apartment',
                                              '2BR, Luas dan Cozy',
       g places.page.html U
                                              'http://www.desertsun.co.uk/blog/images/Apartment%201.jpg',
       places.page.scss
       places.page.spec.ts U
       places.page.ts
                                               Place(
                                              'p2',
       places.service.spe... \( \)
                                              'Serpong Apartment',
       A places.service.ts 1, U
                                              'Apartemen Romantis',
      🔞 app-routing.modu... M
                                              'https://static3.businessinsider.com/image/5681799ce6183e55008b526d
         app.component.html
                                              125000000
        app.component.scss
                                               Place(
      app.component.spec.ts
      app.component.ts
                                              'BSD Apartment',
      app.module.ts
                                              'Apartemen Murah',
    assets
                                              'https://lh3.googleusercontent.com/-F5aY6yinaiA/TW_NzlRJppI/AAAAAAA
     environments
                                              50000000
                                            ),
    theme
                                          ];
       global.scss
     index.html
                                          get places() {
     main.ts
                                            return [...this._places];
     nobefille te
OUTLINE
```

16. Tambahkan kode berikut pada discover.page.ts

```
EXPLORER
                                                                                                                 discover.page.ts ×
UNTITLED (WORKSPACE)

    umn-homes > src > app > places > discover > 
    discover.page.ts > 
    ⇔Discover.page.ts > 
    ⇔Discover.page
                                                                                                                           1  vimport { Component, OnInit } from '@angular/core';
2  import { PlacesService } from '../places.service';
           places
                discover
                                                                                                                                              import { Place } from '../place.model';
                     > place-detail
                              🔇 discover.module... U

√ @Component({
                                                                                                                                                     selector: 'app-discover',
                              discover.page.ht... U
                                                                                                                                                    templateUrl: './discover.page.html',
                              🧣 discover.page.scss U
                                                                                                                                                    styleUrls: ['./discover.page.scss'],
                             🚨 discover.page.sp... l
                                                                                                                                             })
                                                                                                                                                          ort class DiscoverPage implements OnInit {
                                                                                                                                                    loadedPlaces: Place[];
                > offers
                        place.model.ts
                         places-routing.m... U
                                                                                                                                                     constructor(private placesService: PlacesService) { }
                           places.module.ts
                          places.page.html
                                                                                                                                                    ngOnInit() {
                                                                                                                                                           this.loadedPlaces = this.placesService.places;
                                                                                                                        17
                         places.page.scss
                         places.page.spec.ts U
                         places.page.ts
```

```
EXPLORER
                                                                                                                                                       discover.page.html ×
UNTITLED (WORKSPACE)

    umn-homes > src > app > places > discover > 
    discover.page.html > 
    oion-header > 
    oion-toolbar > 
    oion-title

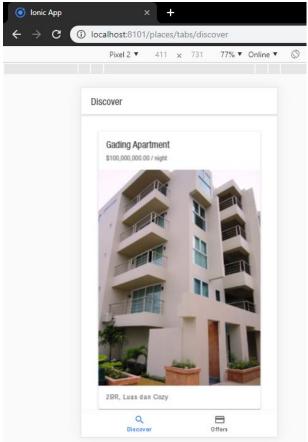
→ Image
→ places

| Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Places | Place

→ liscover

                     > n place-detail
                         discover.module.ts
                               discover.page.html
                                △ discover.page.spec.ts U
                              discover.page.ts
                         offers
                           place.model.ts
                                                                                                                                                                                                               places.module.ts U
places.page.html U
                                                                                                                                                                                                          v.zom.card.neader>
    <ion-img [src]="loadedPlaces[0].imageUrl"></ion-img>
    <ion-card-content>
                             places.page.scss
                                                                                                                                                                                                                       {{ loadedPlaces[0].description }}
                            △ places.page.spec.ts U
                             📆 places.page.ts
                             A places.service.ts
                             app-routing.module.ts
                                  app.component.html
```

18. Lihat hasilnya di browser



19. Tambahkan kode berikut pada discover.page.html

```
EXPLORER
                                      discover.page.html ×

    umn-homes > src > app > places > discover > ■ discover.page.html > ⊕ion-content > ⊕
/ UNTITLED (WORKSPACE)

→ Image
→ places

                                             ≺ion-content padding>
                                              <ion-grid>
     <ion-row>
           <ion-col>

✓ 

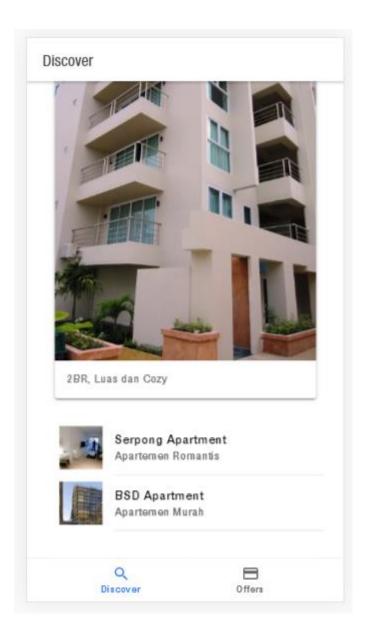
discover

       > 🖿 place-detail
                                                    <ion-card-header>
<ion-card-title>\(\) loadedPlaces[0].title }}</ion-card-title</pre>
         discover.page.scss
                                                       component IonCardHeader padedPlaces[0].price | currency }}

∆ discover.page.spec.ts U

         discover.page.ts
                                                       <ion-img [src]="loadedPlaces[0].imageUrl"></ion-img>
<ion-card-content>
      > offers
        nlace.model.ts
                                                       {{ loadedPlaces[0].description }}
        places-routing.module.ts U
        places.module.ts
        ■ places.page.html
        places.page.scss
                                                    on-row>
<ion-col size="12" size-sm="8" offset-sm="2" text-center>
        places.page.spec.ts
        rs places.page.ts
                                                       places.service.spec.ts
        A places.service.ts
       app-routing.module.ts
       ■ app.component.html
                                                          <h2>{{ place.title }}</h2>
       app.component.scss
                                                          >{{ place.description }}
       app.component.spec.ts
                                                 </ion-label>
</ion-item>
</ion-list>
</ion-col>
</ion-row>
       app.component.ts
       app.module.ts
   > 📭 assets
   > 🔃 environments
> OUTLINE
NPM SCRIPTS
```

20. Lihat hasilnya di browser

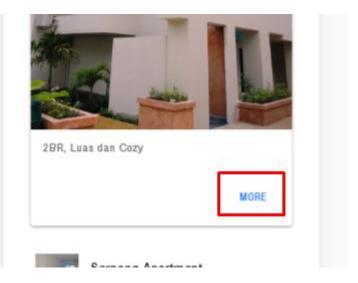


21. Tambahkan kode berikut pada discover.page.html untuk menambahkan button "More"

```
EXPLORER
                                                                                                                                                                            discover.page.html ×
UNTITLED (WORKSPA... 🖰 🖆 🖰 🗗

    umn-homes > src > app > places > discover > 
    discover.page.html > 
    oion-content > 
    content > 
   content > 
    content > 
   content > 
   content > 
   content > 
   content > 
   content > 
   content > 
   content > 
   c
                                                                                                                                                                                                                                               </ion-card-header>
<ion-img [src]="loadedPlaces[0].imageUrl"></ion-img>
<ion-card-content>
                    ∨ 🗁 place-detail
                                         place-detail.module.ts U
                                                                                                                                                                                                                                                {{ loadedPlaces[0].description }}</ion-card-content>
                                                  place-detail.page.html \
                                                                                                                                                                                                                                              <div text-right padding>
  <ion-button fill="clear" color="primary" [routerLink]="[
    '/',</pre>
                                         place-detail.page.scss
                                         🛕 place-detail.page.spe... U
                                       🖪 place-detail.page.ts / U
                                                                                                                                                                                                                                                       'places',
                                   discover.module.ts
                                                                                                                                                                                                                                                        'tabs',
                                   g discover.page.scss
                                                                                                                                                                                                                                                       loadedPlaces[0].id]">More</ion-button>
                                   discover.page.spec.ts
                                   s discover.page.ts
                     > offers
```

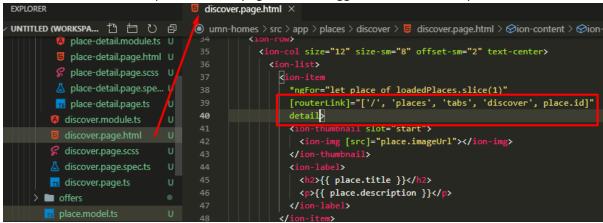
22. Lihat hasilnya di browser:



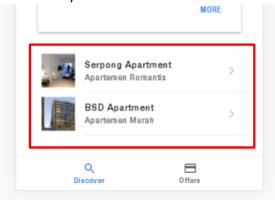
23. Coba click tombol tersebut, akan membuka halaman place-detail

```
place-detail
```

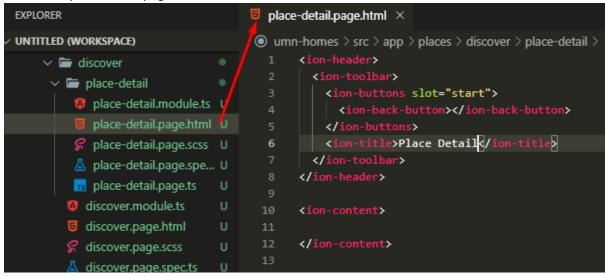
24. Tambahkan kode berikut pada discover.page.html sehingga list-item bias di tap/click.



25. Coba hasilnya di browser



26. Modifikasi place-detail.page.html untuk menambahkan back button.



27. Lihat hasilnya di browser

```
← Place Detail
```

28. Tambahkan attribute default-href. Apakah Anda masih ingat untuk apa fungsi attribute ini?

29. Tambahkan kode berikut pada place-detail.page.html

```
| place-detail.page.html | | place-detail.page.h
```

30. Tambahkan kode berikut pada place-detail.page.ts

```
EXPLORER
                                      🖪 place-detail.page.ts 🗵
UNTITLED (WORKSPACE)
                                       🔰 umn-homes > src > app > places > discover > place-detail > 📆 place-detail.
                                                styleUrls: ['./place-detail.page.scss'],
     auth
                                              })
   bookings
                                               export class PlaceDetailPage implements OnInit {
     places
     v 🗁 discover
                                                constructor(private router: Router) { }

✓ I place-detail

                                                ngOnInit() {
          place-detail.module.ts U
         Figure 1, U place-detail.page.h... 1, U
         place-detail.page.scss U
                                                goBack() {
         place-detail.page.spe...
                                                  this.router.navigateByUrl('/places/tabs/discover');
                                                }
         glace-detail.page.ts
         discover.module.ts
```

31. Lihat hasilnya di browser, bandingkan dengan back-button yang dibuat sebelumnya.



32. Coba modifikasi place-detail.page.ts menjadi seperti berikut.

```
🖪 place-detail.page.ts 🗵
UNTITLED (WORKSPACE)

    umn-homes > src > app > places > discover > place-detail > 
    src > place-detail.page.ts > 
    PlaceD

   > 🛅 auth
                                              export class PlaceDetailPage implements OnInit {
   > bookings
                                                constructor(private router: Router, private navCtrl: NavController) { }
   places
      discover 🗁
                                                ngOnInit() {
       / 🗁 place-detail
          👂 place-detail.module.ts 👃
                                                goBack() {
         😈 place-detail.page.h... 1, U
         place-detail.page.scss
                                                  this.navCtrl.navigateBack('/places/tabs/discover');
         🛕 place-detail.page.spe. . U
        discover.page.html
```

33. Coba lagi tombol back dan tombol goback, bandingkan hasilnya.