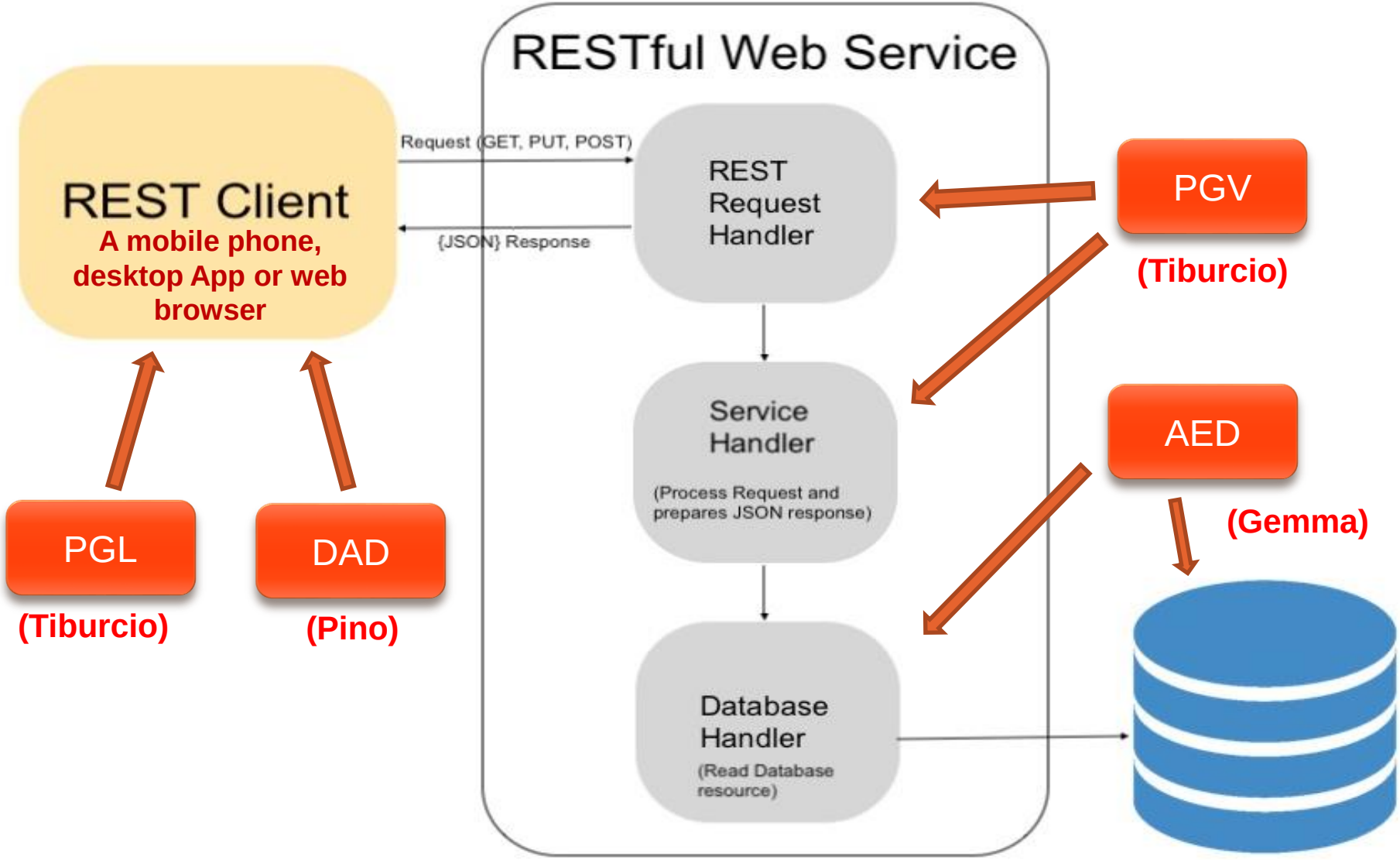
IONIC consumming an API (Using Angular)

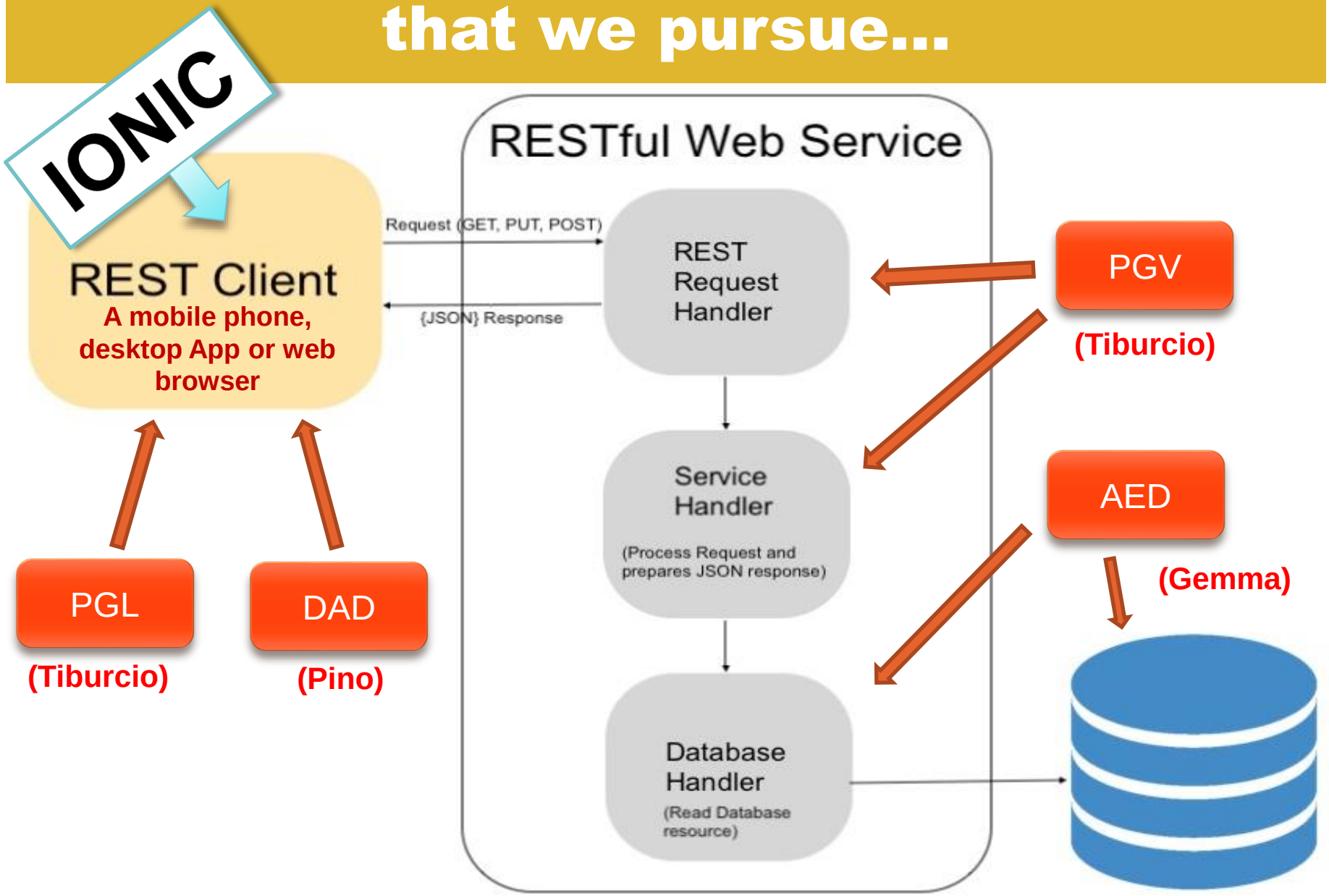
Summary of steps based on the web:

https://remotestack.io/ionic-http-requests-with-httpclient-get-post-put-delete-tutorial/

Let us never lose the global vision that we pursue…



Let us never lose the global vision that we pursue…



To the mess... we are going to make our App with Ionic...

What do we do now?

You must previously have installed:

- **NodeJS**, which is what has made JavaScript to run outside of the web browser.
- **npm**, which is the package manager for node. (Similar to apt for Linux)
- The commands below allow you to see the installed version.

```
$ node --version
$ npm --version
```

To the mess… we are going to make our App with Ionic…

Let's install ionic…

Let's install ionic:

- **@ionic/cli**, ionic comes as one more package available in npm.
- The option **–g** is to install it globally in your PC.

```
$ npm install -g @ionic/cli
```

To the mess… we are going to make our App with Ionic…

Let's create our App with ionic…

Creating our Ionic App:

- **ionic start,** creates a skeleton of the App.
- **myApp,** is the name of the App to be created.
- **blank**, is the initial template. Other options are: tabs, sidemenu, etc…
- **--capacitor,** means that I'm going to use integration with Capacitor. The other posible option is --cordova
- **--type=angular**, means that I'm going to use Angular. Other options are: react or vue. You can also use older versions: "ionic1" or "ionic-angular". "ionic start --list" shows a full list of the available options.

```
$ ionic start myApp blank --capacitor --type=angular
```

To the mess… we are going to make our App with Ionic…

Let's créate our App with ionic…

It will surely ask you the following if you want to create an Ionic account…

You do not need an Ionic account for this practice…

To get to the point in this practice, answer No by pressing ENTER.

```
Join the Ionic Community! 💙

Connect with millions of developers on the Ionic Forum and get access to live events, news updates, and more.

? Create free Ionic account? (y/N)
```

To the mess… we are going to make our App with Ionic…

Let's create our App with ionic…

If you get to this screen, you have managed to create the skeleton of a project with Ionic that is now ready to work…

```
Your Ionic app is ready! Follow these next steps:

- Go to your new project: cd .\myApp
- Run ionic serve within the app directory to see your app in the browser
- Run ionic capacitor add to add a native iOS or Android project using Capacitor
- Generate your app icon and splash screens using cordova-res --skip-config --copy
- Explore the Ionic docs for components, tutorials, and more: https://ion.link/docs
- Building an enterprise app? Ionic has Enterprise Support and Features: https://ion.link/enterprise-edition

tibur@MSI MINGW64 /c/MisCosas/Casa/Ionic
$
```

To the mess… we are going to make our App with Ionic…

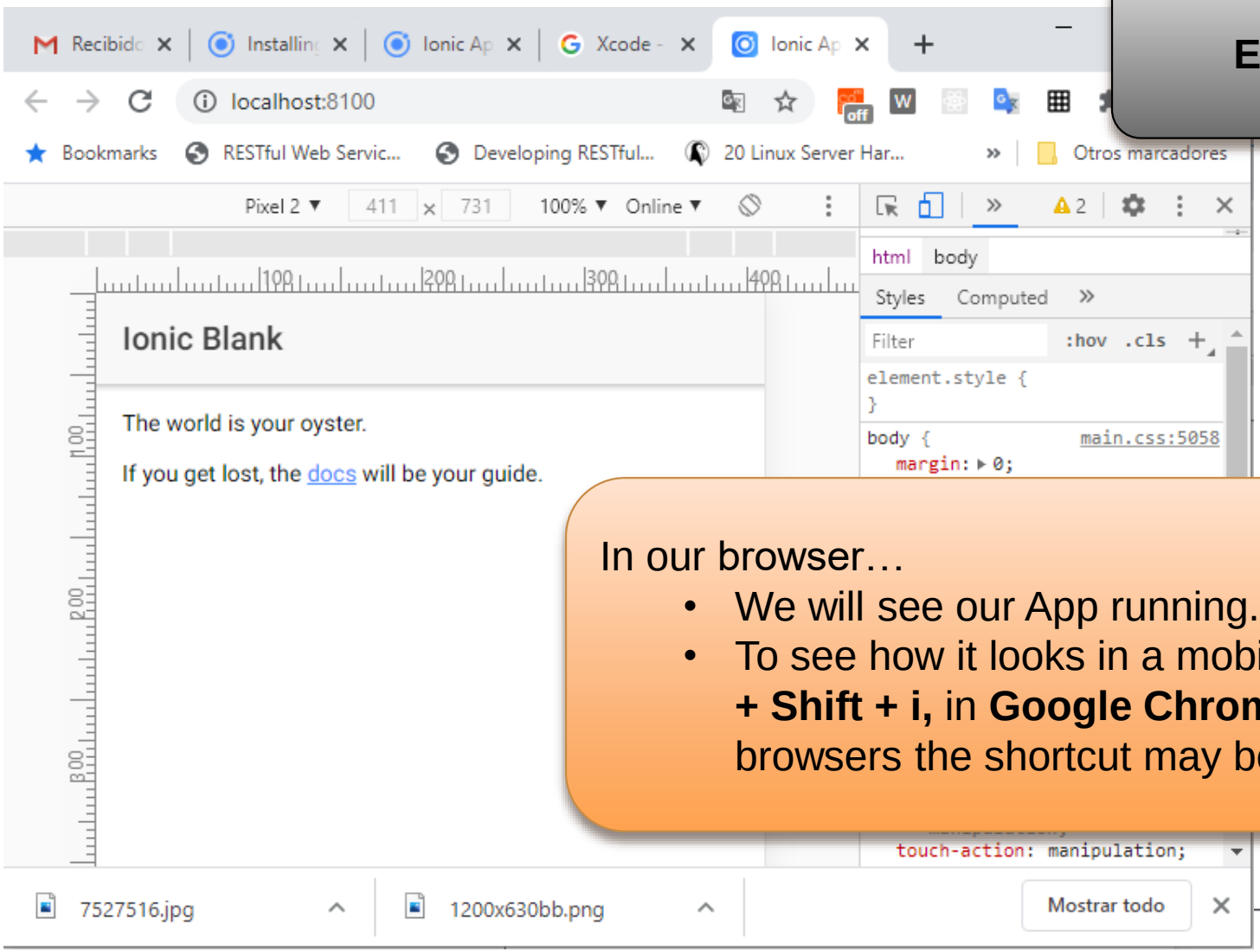
Let’s boot our App with Ionic…

Let’s boot our App with ionic:

- **cd myApp,** Change to the new created directory.
- **Ionic serve,** Let’s boot the developping server for our App.

```
$ cd myApp
$ ionic serve
```

To the mess… we are going to make our App with Ionic…



Et voilá…

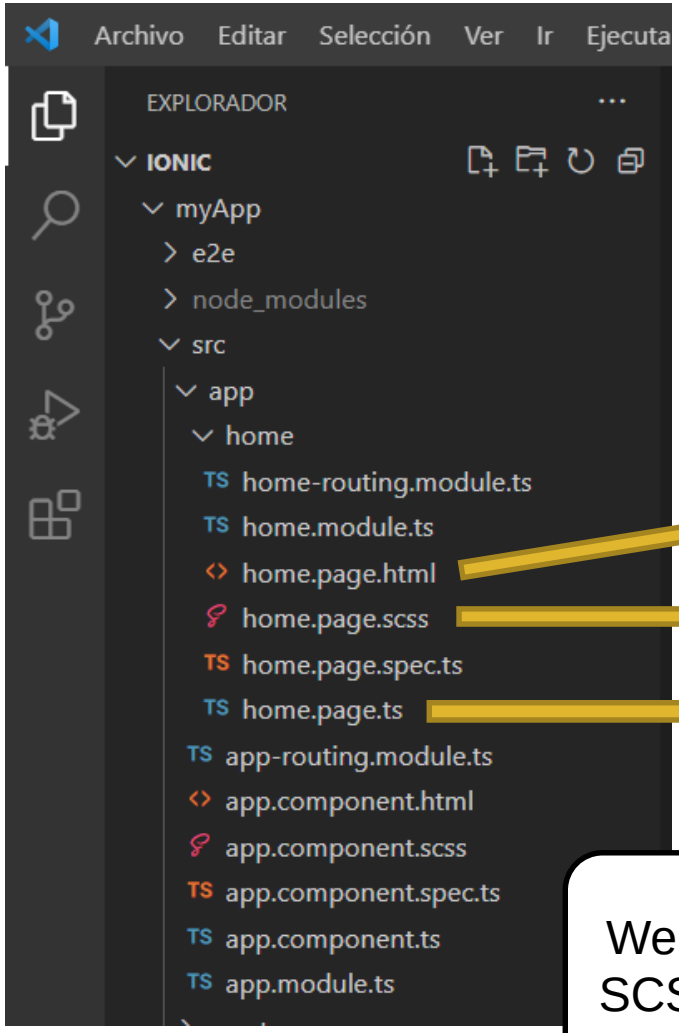
In our browser…

- We will see our App running.
- To see how it looks in a mobile phone **Ctrl + Shift + i,** in **Google Chrome.** In other browsers the shortcut may be different.

Let’s start coding.

It all comes down to HTML, CSS, and JavaScript

Creating an App with Ionic...
All is HTML, CSS & JavaScript



Let's check that the most important is HTML, CSS and JavaScript

HTML

SCSS

TypeScript

We actually use the Angular framework and we work with SCSS for styles and with TypeScript instead of JavaScript

Creating an App with Ionic...

All is HTML, CSS & JavaScript

Let's check that the most important is HTML, CSS and JavaScript

Let's add a bit of HTML

Archivo Editar Selección Ver Ir Ejecutar Terminal Ayuda

EXPLORADOR

IONIC
- myApp
  - e2e
  - node_modules
  - src
    - app
      - home
        - home-routing.module.ts
        - home.module.ts
        - home.page.html M
        - home.page.scss M
        - home.page.spec.ts
        - home.page.ts M
      - app-routing.module.ts
      - app.component.html
      - app.component.scss
      - app.component.spec.ts
      - app.component.ts
      - app.module.ts

home.page.html M | home.page.scss M

myApp > src > app > home > home.page.html

```html
<ion-header [translucent]="true">
  <ion-toolbar>
    <ion-title>
      Blank
    </ion-title>
  </ion-toolbar>
</ion-header>

<ion-content [fullscreen]="true">
  <ion-header collapse="condense">
    <ion-toolbar>
      <ion-title size="large">Blank</ion-title>
    </ion-toolbar>
  </ion-header>

  <div>
    <h1 class="brand">Brand: {{brand}}</h1>
    <p>Model: {{model}}</p>
  </div>
</ion-content>
```

Creating an App with Ionic...
All is HTML, CSS & JavaScript

Archivo Editar Selección Ver Ir Ejecutar Terminal Ayuda

EXPLORADOR

IONIC
- myApp
  - e2e
  - node_modules
  - src
    - app
      - home
        - home-routing.module.ts
        - home.module.ts
        - home.page.html M
        - home.page.scss M
        - home.page.spec.ts
        - home.page.ts M
      - app-routing.module.ts
      - app.component.html
      - app.component.scss
      - app.component.spec.ts

home.page.html M

myApp > src > app > home > ho

```
14  }
15
16  #container p {
17    font-size: 16px;
18    line-height: 22px;
19
20    color: #8c8c8c;
21
22    margin: 0;
23  }
24
25  #container a {
26    text-decoration: none;
27  }
28
29  .brand {
30    color: red;
31  }
```

Let's check that the most important is HTML, CSS and JavaScript

Let's add a bit of SCSS

Creating an App with Ionic...
All is HTML, CSS & JavaScript

Let's check that the most important is HTML, CSS and JavaScript

Let's add a bit of TypeScript

Archivo Editar Selección Ver Ir Ejecutar Terminal Ayuda

EXPLORADOR

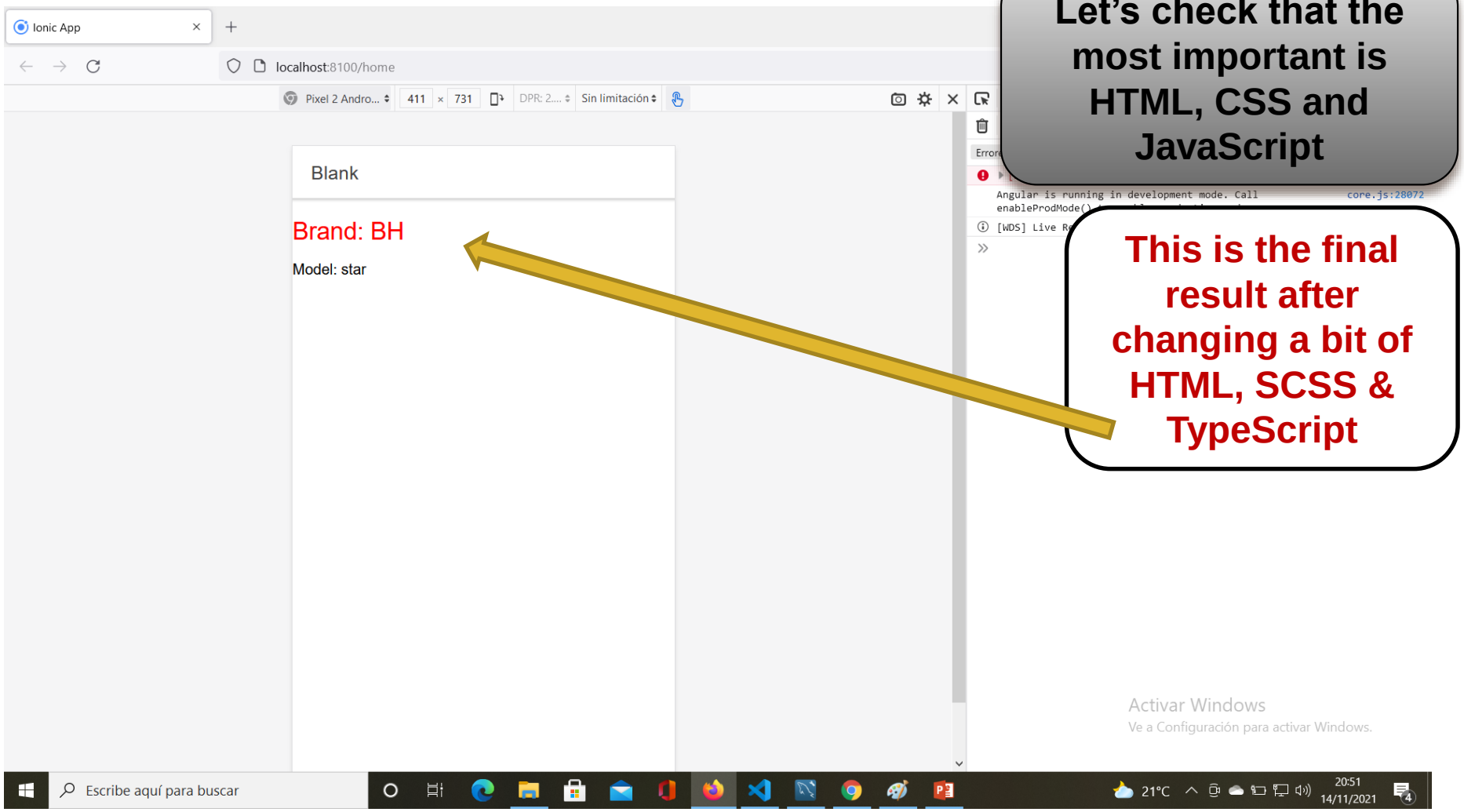
- IONIC
  - myApp
    - e2e
    - node_modules
    - src
      - app
        - home
          - home-routing.module.ts
          - home.module.ts
          - home.page.html M
          - home.page.scss M
          - home.page.spec.ts
          - home.page.ts M
        - app-routing.module.ts
        - app.component.html

home.page.html M

myApp > src > app > home > home.pa

```
1  import { Component } from
2
3  @Component({
4    selector: 'app-home',
5    templateUrl: 'home.page.html',
6    styleUrls: ['home.page.scss'],
7  })
8  export class HomePage {
9
10   brand: string = "BH";
11   model: string = "star";
12
13   constructor() {}
14
15 }
16
```

Creating an App with Ionic...
All is HTML, CSS & JavaScript



Let's check that the most important is HTML, CSS and JavaScript

This is the final result after changing a bit of HTML, SCSS & TypeScript

Let’s create now a new page called my-bicycles which shows a list from a JSON Array of objects

Creating an App with Ionic...

List from a JSON Array of objects

Let's create a page called my-bicycles

```
tibur@DESKTOP-O2362TM MINGW64 /c/MisCosas/Casa/Ionic/myApp
$ ionic generate page my-bicycles
> ng.cmd generate page my-bicycles --project=app
CREATE src/app/my-bicycles/my-bicycles-routing.module.ts (364 bytes)
CREATE src/app/my-bicycles/my-bicycles.module.ts (502 bytes)
CREATE src/app/my-bicycles/my-bicycles.page.html (130 bytes)
CREATE src/app/my-bicycles/my-bicycles.page.spec.ts (690 bytes)
CREATE src/app/my-bicycles/my-bicycles.page.ts (275 bytes)
CREATE src/app/my-bicycles/my-bicycles.page.scss (0 bytes)
UPDATE src/app/app-routing.module.ts (630 bytes)
[OK] Generated page!

tibur@DESKTOP-O2362TM MINGW64 /c/MisCosas/Casa/Ionic/myApp (master)
$
```

Creating an App with Ionic...

List from a JSON Array of objects

Archivo Editar Selección Ver Ir Ejecutar Terminal Ayuda

EXPLORADOR

IONIC
- myApp
  - e2e
  - node_modules
  - src
    - app
      - home
      - my-bicycles
        - my-bicycles-routing.module... U
        - my-bicycles.module.ts U
        - my-bicycles.page.html U
        - my-bicycles.page.scss U
        - my-bicycles.page.spec.ts U
        - my-bicycles.page.ts U
      - app-routing.module.ts M
      - app.component.html
      - app.component.scss
      - app.component.spec.ts
      - app.component.ts

TS my-bicycles.page.ts U

myApp > src > app > my-bicycles > TS my-bicy

```
1  import { Component, OnInit } f
2
3  @Component({
4    selector: 'app-my-bicycles',
5    templateUrl: './my-bicycles.page.html',
6    styleUrls: ['./my-bicycles.page.scss'],
7  })
8  export class MyBicyclesPage implements OnInit {
9
10   constructor() { }
11
12   ngOnInit() {
13   }
14
15 }
16
```

As you can see a folder called my-bicycles is created, with the same structure as home

Creating an App with Ionic...

List from a JSON Array of objects

Let's add an array with data about bicycles

Archivo Editar Selección Ver Ir Ejecutar Terminal Ayuda my-bicyc

EXPLORADOR

- IONIC
  - myApp
    - e2e
    - node_modules
    - src
      - app
        - home
        - my-bicycles
          - my-bicycles-routing.module... U
          - my-bicycles.module.ts U
          - my-bicycles.page.html U
          - my-bicycles.page.scss U
          - my-bicycles.page.spec.ts U
          - my-bicycles.page.ts U
        - app-routing.module.ts M
        - app.component.html
        - app.component.scss
        - app.component.spec.ts
        - app.component.ts
        - app.module.ts
      - assets
      - environments
      - theme
      - global.scss
      - index.html

my-bicycles.page.ts U

myApp > src > app > my-bicycles > my-bicycles.page.ts >

```
1  import { Component, OnInit } from '@angu
2
3  @Component({
4    selector: 'app-my-bicycles',
5    templateUrl: './my-bicycles.page.html',
6    styleUrls: ['./my-bicycles.page.scss'],
7  })
8  export class MyBicyclesPage implements OnInit {
9
10   bicycles: any = [
11     {
12       id: 1,
13       brand: "BH",
14       model: "star"
15     },{
16       id: 2,
17       brand: "Orbea",
18       model: "sky"
19     }
20   ]
21
22   constructor() { }
23
24   ngOnInit() {
25   }
26
27 }
28
```

Creating an App with Ionic...
List from a JSON Array of objects

Let's add the view to show the bike array information

Find tips about lists in the following link: **https://ionicframework.com/docs/api/list**

Archivo Editar Selección Ver Ir Ejecutar Terminal Ayuda

EXPLORADOR

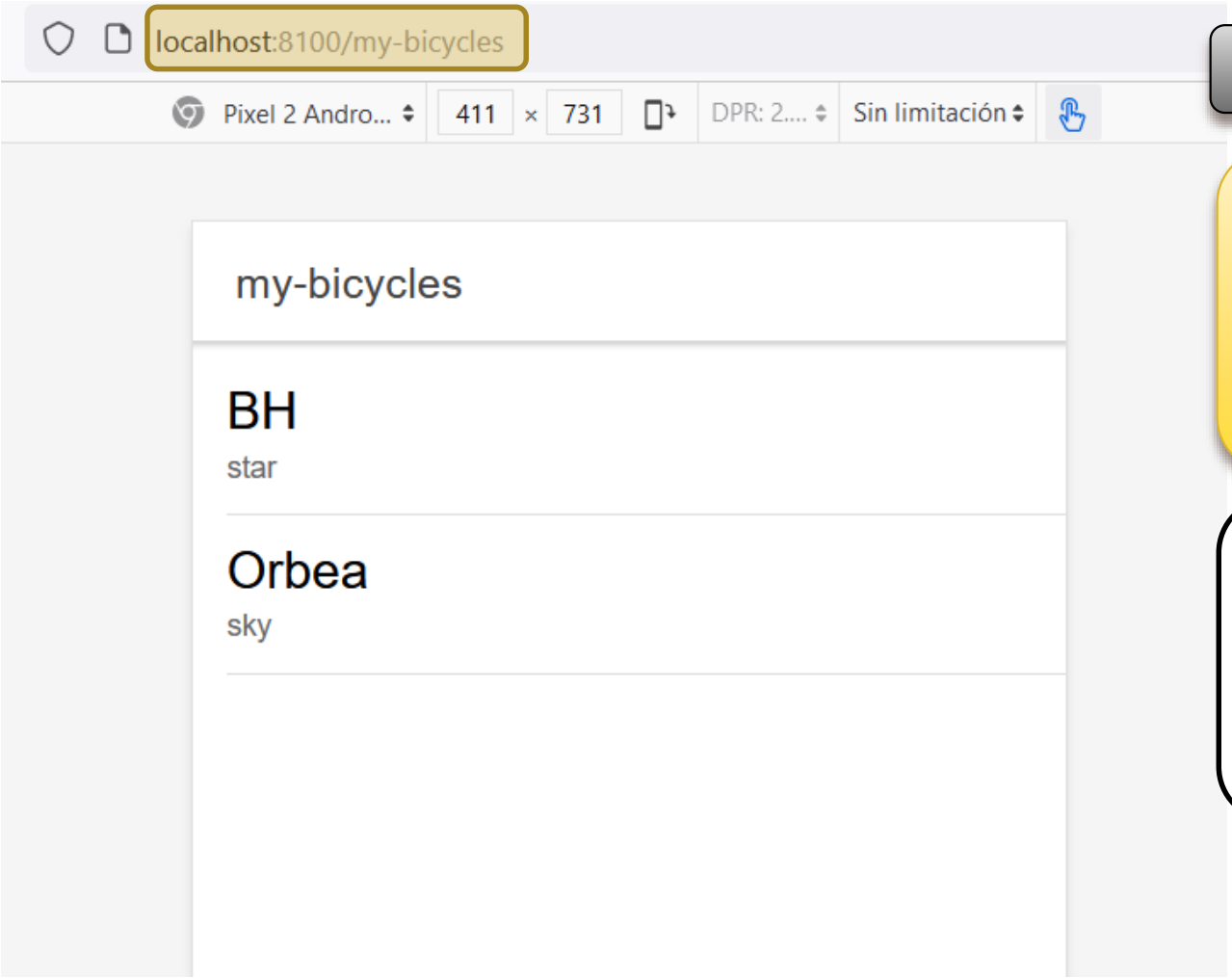
IONIC
- myApp
  - e2e
  - node_modules
  - src
    - app
      - home
      - my-bicycles
        - my-bicycles-routing.module... U
        - my-bicycles.module.ts U
        - my-bicycles.page.html U
        - my-bicycles.page.scss U
        - my-bicycles.page.spec.ts U
        - my-bicycles.page.ts U
      - app-routing.module.ts M
      - app.component.html

TS my-bicycles.page.ts U

myApp > src > app > my-bicycles

```
1  <ion-header>
2    <ion-toolbar>
3      <ion-title>m
4    </ion-toolbar>
5  </ion-header>
6
7  <ion-content>
8
9    <ion-list>
10     <ion-item *ngFor="let b of bicycles">
11       <ion-label>
12         <h1>{{b.brand}}</h1>
13         <p>{{b.model}}</p>
14       </ion-label>
15     </ion-item>
16   </ion-list>
17 </ion-content>
```

Creating an App with Ionic...
List from a JSON Array of objects



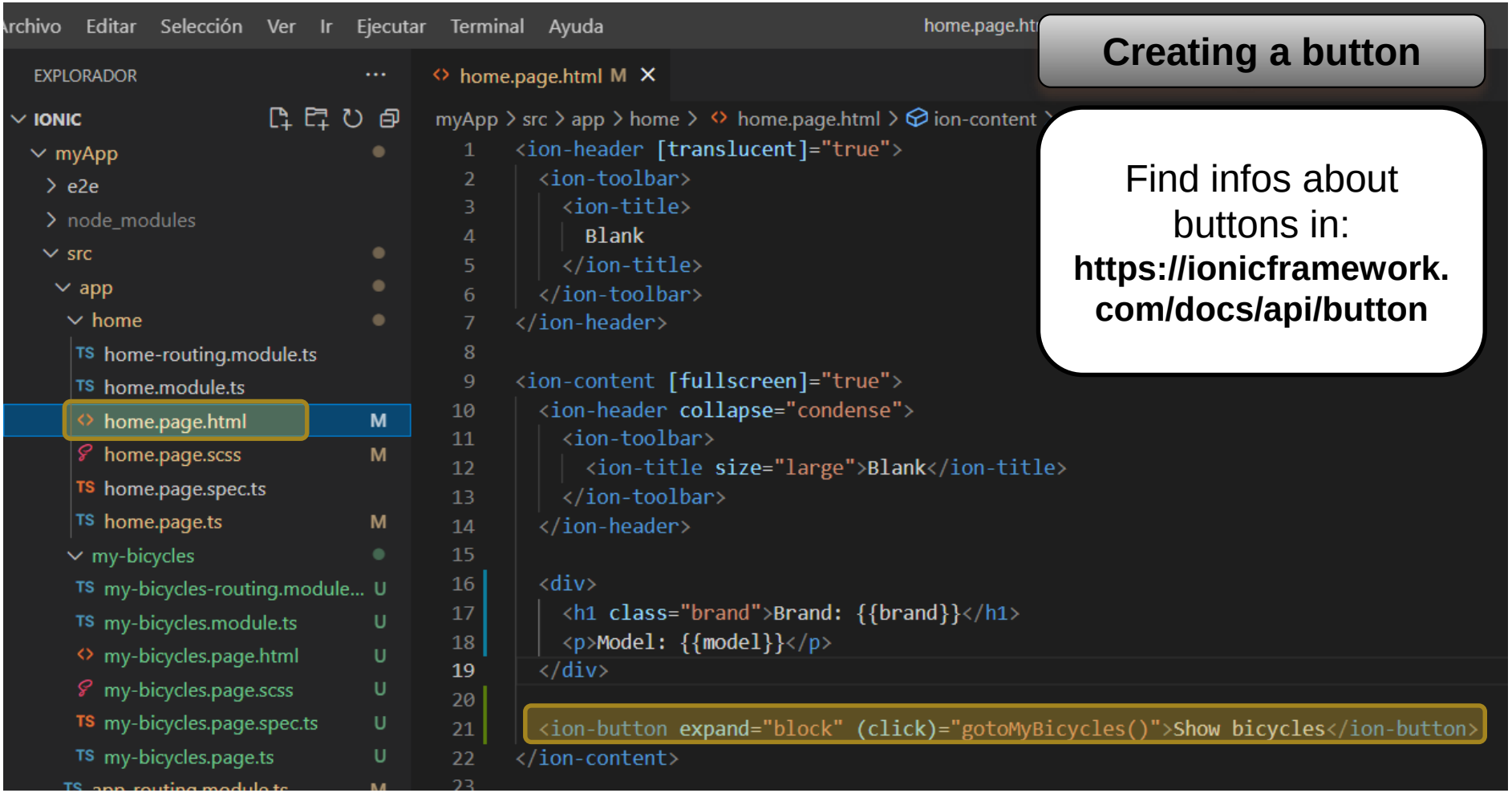
And this is the result

View the result in the following link: **http://localhost:8100/my-bicycles**

Find tips about list in the following link: **https://ionicframework.com/docs/api/list**

Instead of changing the URL by hand we will go from one page to another through a button

Creating an App with Ionic...
List from a JSON Array of objects



Creating an App with Ionic...
From one page to another

Creating the link

chivo Editar Selección Ver Ir Ejecutar Terminal Ayuda

EXPLORADOR

IONIC
- myApp
  - e2e
  - node_modules
  - src
    - app
      - home
        - home-routing.module.ts
        - home.module.ts
        - home.page.html M
        - home.page.scss M
        - home.page.spec.ts
        - home.page.ts M
      - my-bicycles
        - my-bicycles-routing.module... U
        - my-bicycles.module.ts U
        - my-bicycles.page.html U
        - my-bicycles.page.scss U
        - my-bicycles.page.spec.ts U

home.page.html M | home.page.ts M

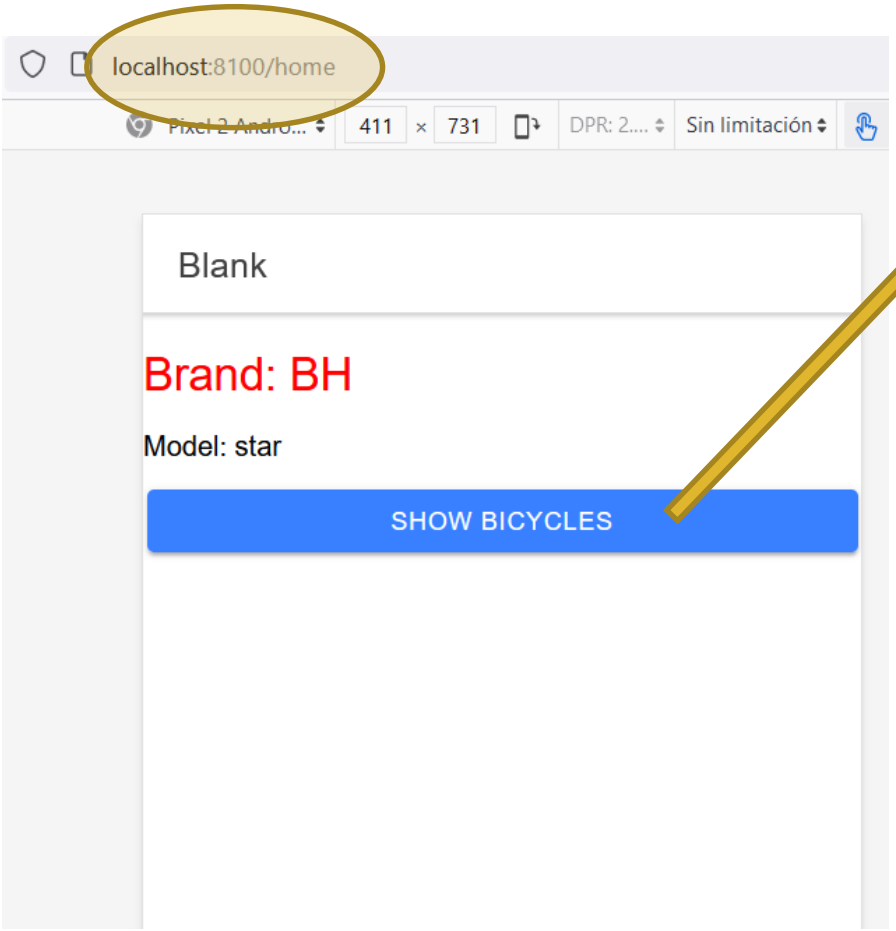
myApp > src > app > home > home.page.ts > ...

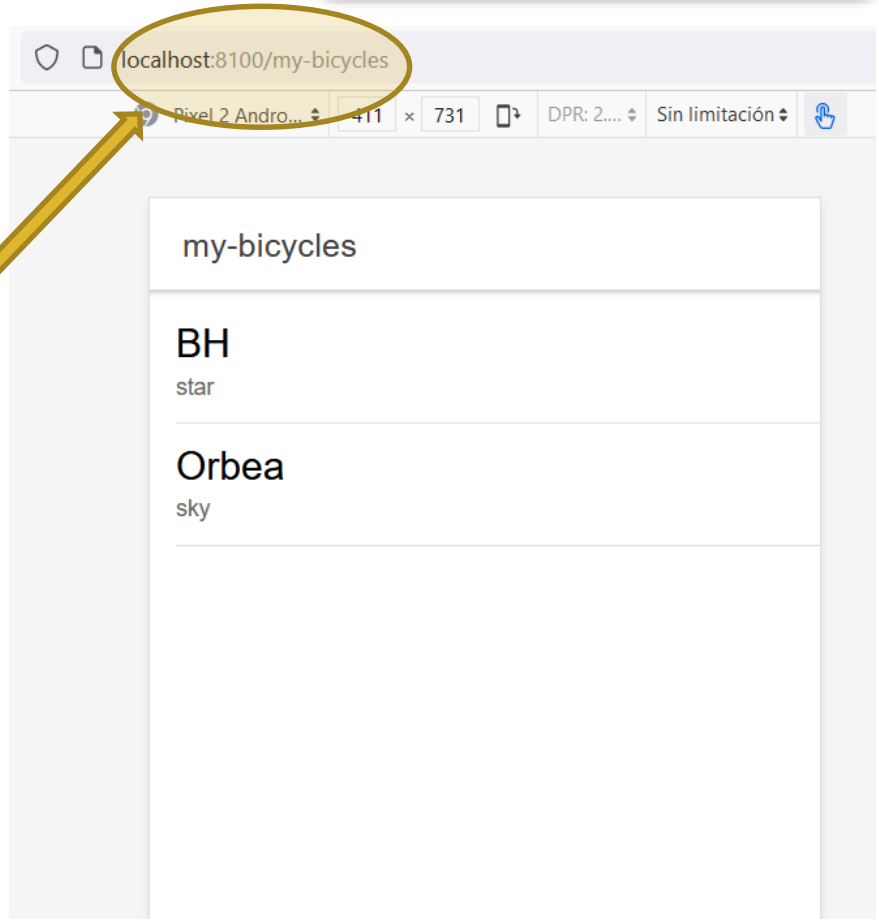
```
1  import { Component } from '@angular/core';
2  import { Router } from '@angular/router';
3
4  @Component({
5    selector: 'app-home',
6    templateUrl: 'home.page.html',
7    styleUrls: ['home.page.scss'],
8  })
9  export class HomePage {
10
11   brand: string = "BH";
12   model: string = "star";
13
14   constructor(private router: Router) { }
15
16   gotoMyBicycles() {
17     this.router.navigateByUrl("/my-bicycles");
18   }
19
20 }
21
```

Find infos about navigation in: **https://ionicframework.com/docs/angular/navigation**

Creating an App with Ionic...
From one page to another

Testing the button





Understanding the routing in Ionic

Creating an App with Ionic...

Understanding the routing in Ionic

e.page.html M TS app-routing.module.ts M ×

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

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

const routes: Routes = [
  {
    path: 'home',
    loadChildren: () => import('./home/home.module').then( m => m.HomePageModu
  },
  {
    path: '',
    redirectTo: 'home',
    pathMatch: 'full'
  },
  {
    path: 'my-bicycles',
    loadChildren: () => import('./my-bicycles/my-bicycles.module').then( m => m.MyBicyclesPageModule)
  },
];

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

Let's take a look to app-routing.modules.ts

When creating a page the corresponding path is created in this file. At the moment we have 2 pages: **"home" and "my-bicycles"**

Creating a service to consume an API RESTful

Replacing our Array of "hardcoded" JSON objects with data obtained from the API

Creating an App with Ionic...

Creating a service to consume an API

EXPLORADOR

IONIC

- myApp
  - e2e
  - node_modules
  - src
    - app
      - home
        - home-routing.module.ts
        - home.module.ts
        - home.page.html M
        - home.page.scss M
        - home.page.spec.ts
        - home.page.ts M
      - my-bicycles
      - services
        - bicycle.service.spec.ts U
        - bicycle.service.ts U
      - app-routing.module.ts M
      - app.component.html
      - app.component.scss
      - app.component.spec.ts
      - app.component.ts
      - app.module.ts

TS bicycle.service.ts U

myApp > src > app > services > TS bicycle.service.ts > ...

```
1  import { Injectable } from '@angular/core';
2
3  @Injectable({
4    providedIn: 'root'
5  })
6  export class BicycleService {
7
8    constructor() { }
9  }
10
```

Let's create a service

We create the service BicycleService by running the command:

ionic generate service services/bicycle

PROBLEMAS SALIDA CONSOLA DE DEPURACIÓN TERMINAL

```
tibur@DESKTOP-O2362TM MINGW64 /c/MisCosas/Casa/Ionic
$ cd myApp/

tibur@DESKTOP-O2362TM MINGW64 /c/MisCosas/Casa/Ionic/myApp (master)
$ ionic generate service services/bicycle
> ng.cmd generate service services/bicycle --project=app
CREATE src/app/services/bicycle.service.spec.ts (362 bytes)
CREATE src/app/services/bicycle.service.ts (136 bytes)
[OK] Generated service!

tibur@DESKTOP-O2362TM MINGW64 /c/MisCosas/Casa/Ionic/myApp (master)
$
```

Creating an App with Ionic...
Creating a service to consume an API

Archivo Editar Selección Ver Ir Ejecutar Terminal Ayuda

EXPLORADOR

- IONIC
  - myApp
    - e2e
    - node_modules
    - src
      - app
        - home
          - home-routing.module.ts
          - home.module.ts
          - home.page.html M
          - home.page.scss M
          - home.page.spec.ts
          - home.page.ts M
        - my-bicycles
          - my-bicycles-routing.module... U
          - my-bicycles.module.ts U
          - my-bicycles.page.html U
          - my-bicycles.page.scss U
          - my-bicycles.page.spec.ts U
          - my-bicycles.page.ts U
        - services
          - bicycle.service.spec.ts U
          - bicycle.service.ts U

TS bicycle.service.ts U | TS my-bicycles.page.ts U | TS

myApp > src > app > services > TS bicycle.service.ts > ...

```
1  import { Injectable } from '@angular/core';
2  import { HttpClient } from '@angular/common/http';
3
4  @Injectable({
5    providedIn: 'root'
6  })
7  export class BicycleService {
8
9    endpoint = 'http://localhost:8080/api/bicycles';
10
11   constructor(private httpClient: HttpClient) { }
12
13   getBicycles() {
14     return this.httpClient.get(this.endpoint);
15   }
16 }
17
```

PROBLEMAS SALIDA CONSOLA DE DEPURACIÓN TERMINAL

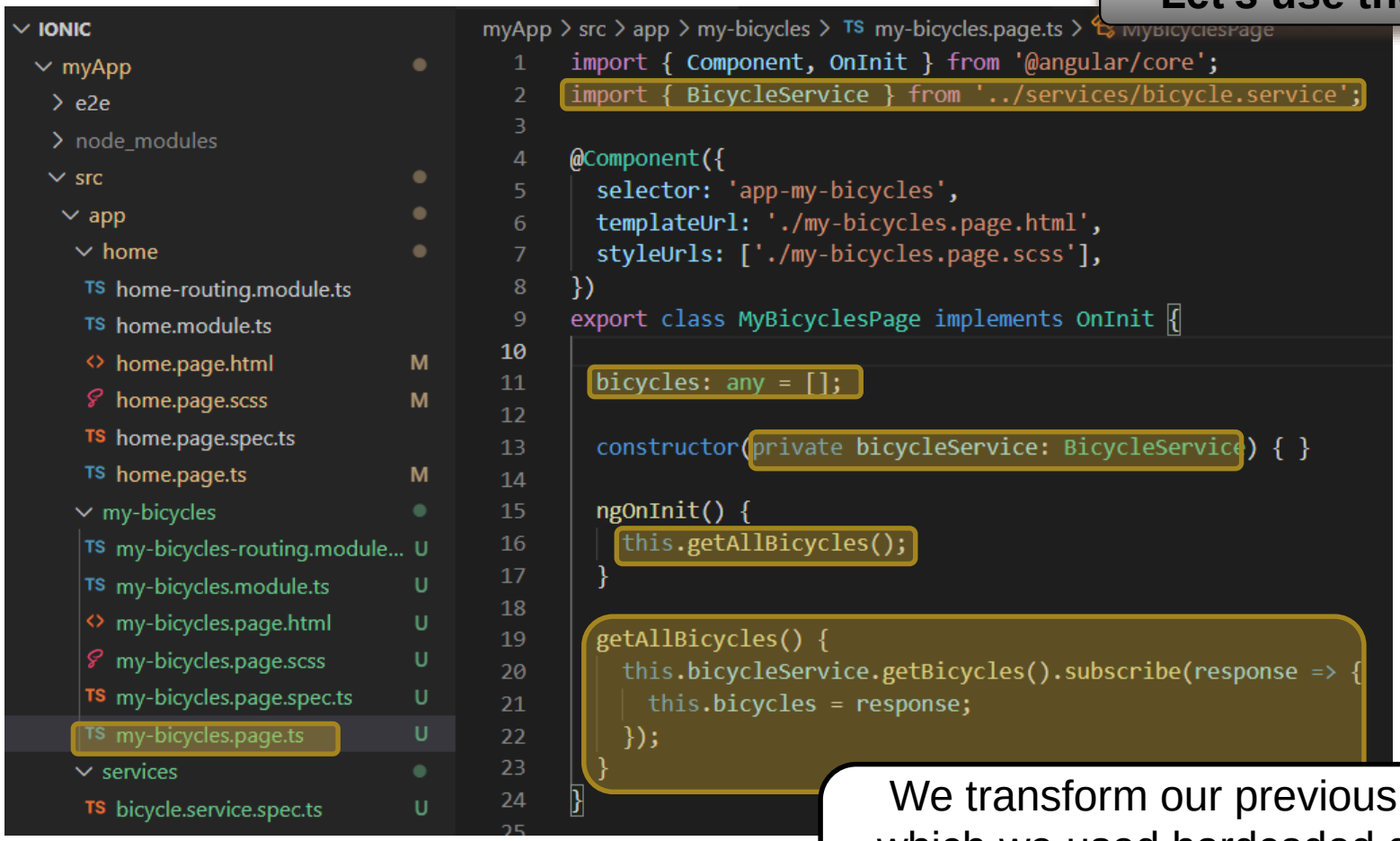
Executing (default): CREATE TABLE IF NOT EXISTS `bi

Creating a service

The method getBicycles() allows you to access an end-point which returns an Array with the bicycles data

Creating an App with Ionic...
Creating a service to consume an API

Let's use the service



We transform our previous version in which we used hardcoded data in **my-bicycles.page.ts** to now get the data from the service

Creating an App with Ionic...
Creating a service to consume an API

```
tibur@DESKTOP-O2362TM MINGW64 /c/MisCosas/Casa/Bicycles/backend
$ node index.js
```

Boot the API

GET http://localhost:8080/api/bicycles Send

Params Auth Headers (6) Body Pre-req. Tests Settings Cookies

Body 200 OK 37 ms 594 B Save Response

Pretty Raw Preview Visualize JSON


```
[
    {
        "id": 1,
        "brand": "BH",
        "model": "star",
        "createdAt": "1980-01-01T00:00:00.000Z",
        "updatedAt": "1980-01-01T00:00:00.000Z"
    },
    {
        "id": 2,
        "brand": "Orbea",
        "model": "sky",
        "createdAt": "1980-01-01T00:00:00.000Z",
        "updatedAt": "1980-01-01T00:00:00.000Z"
    },
    {
        "id": 3,
        "brand": "Torrot",
        "model": "sc arlett",
        "createdAt": "1980-01-01T00:00:00.000Z",
        "updatedAt": "1980-01-01T00:00:00.000Z"
    }
]
```


Start the API that we had created in a previous practice and make sure it has data to display using **POSTMAN**

Creating an App with Ionic...
Creating a service to consume an API

Error when accessing the API

Ionic App | bicicletas de los 80 - Buscar con

localhost:8100/home

Pixel 2... 411 × 731 DPR: 2.... Sin limitac...

Inspector | Consola | 1

Filtrar salida

Errores | Advertencias | Registros | Información | Depurar

Blank

Brand: BH

Model: star

SHOW BICYCLES

```
Angular is running in development mode. Call enableProdMode() to enable production mode.                core.js:28072
[WDS] Live Reloading enabled.                                                                            index.js:52
Element.setCapture() está obsoleto. Utilice Element.setPointerCapture() en su lugar. Para más información https://developer.mozilla.org/docs/Web/API/Element/setPointerCapture   …-simulator.js:219:19
ERROR Error: Uncaught (in promise): NullInjectorError: R3InjectorError(MyBicyclesPageModule)[BicycleService -> BicycleService -> HttpClient -> HttpClient -> HttpClient]:
  NullInjectorError: No provider for HttpClient!
  get@http://localhost:8100/vendor.js:50992:27
  get@http://localhost:8100                                                                              core.js:6479
```

When testing our App we get an error that tells us that we have not imported the **HttpClientModule** module

Creating an App with Ionic...
Creating a service to consume an API

Importing the module

In **app.modules.ts** is where we must import the modules we use. In this case the module **HttpClientModule**

cle.service.ts U | TS my-bicycles.page.ts U | TS app.module.ts M ×

> src > app > TS app.module.ts > ...

```
import { NgModule } from '@angular/core';
import { BrowserModule } from '@angular/platform-browser';
import { RouteReuseStrategy } from '@angular/router';

import { IonicModule, IonicRouteStrategy } from '@ionic/angular';

import { AppComponent } from './app.component';
import { AppRoutingModule } from './app-routing.module';
import { HttpClientModule } from '@angular/common/http';

@NgModule({
  declarations: [AppComponent],
  entryComponents: [],
  imports: [BrowserModule, IonicModule.forRoot(), AppRoutingModule, HttpClientModule],
  providers: [{ provide: RouteReuseStrategy, useClass: IonicRouteStrategy }],
  bootstrap: [AppComponent],
})
export class AppModule {}
```

Creating an App with Ionic...
Creating a service to consume an API

Error CORS

localhost:8100/my-bicycles

Pixel 2... 411 × 731 DPR: 2.... Sin limitac...

Inspector Consola 2

Filtrar salida

Errores Advertencias Registros Información Depurar CS

my-bicycles

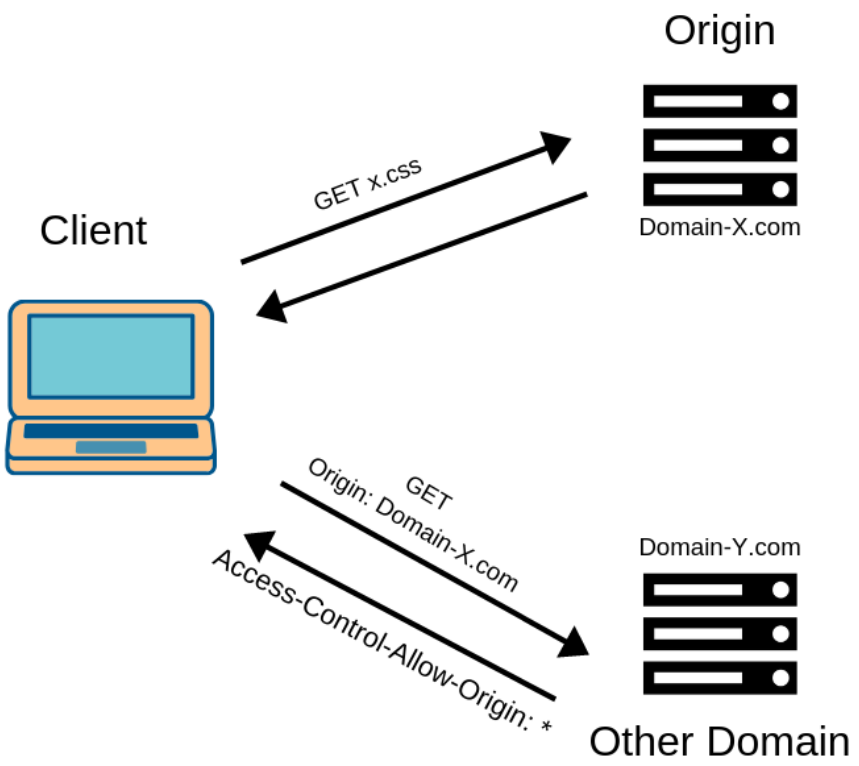
```
Angular is running in development mode. Call enableProdMode() to enable production mode.                core.js:28072
[WDS] Live Reloading enabled.                                                                            index.js:52
Element.setCapture() está obsoleto. Utilice Element.setPointerCapture () en su lugar. Para más información https://developer.mozilla.org/docs/Web/API/Element/setPointerCapture   …-simulator.js:219:19
Solicitud desde otro origen bloqueada: la política de mismo origen impide leer el recurso remoto en http://localhost:8080/api/bicycles (razón: falta la cabecera CORS 'Access-Control-Allow-Origin'). [Saber más]
ERROR                                                                                                    core.js:6479
  ▶ Object { headers: {…}, status: 0, statusText: "Unknown Error", url: "http://localhost:8080/api/bicycles", ok: false, name: "HttpErrorResponse", message: "Http failure response for http://localhost:8080/api/bicycles: 0 Unknown Error", error: error }
```

And now we get a new Error. In this case is the problema of **CORS (Cross Origin Resource Sharing)**

Creating an App with Ionic...
Creating a service to consume an API

Error CORS

Cross-Origin Resource Sharing (CORS) is a mechanism that uses additional HTTP headers to allow a user agent (browser, mobile, etc ...) to obtain permission to access selected resources from a server, in a different origin (domain) to which it belongs.

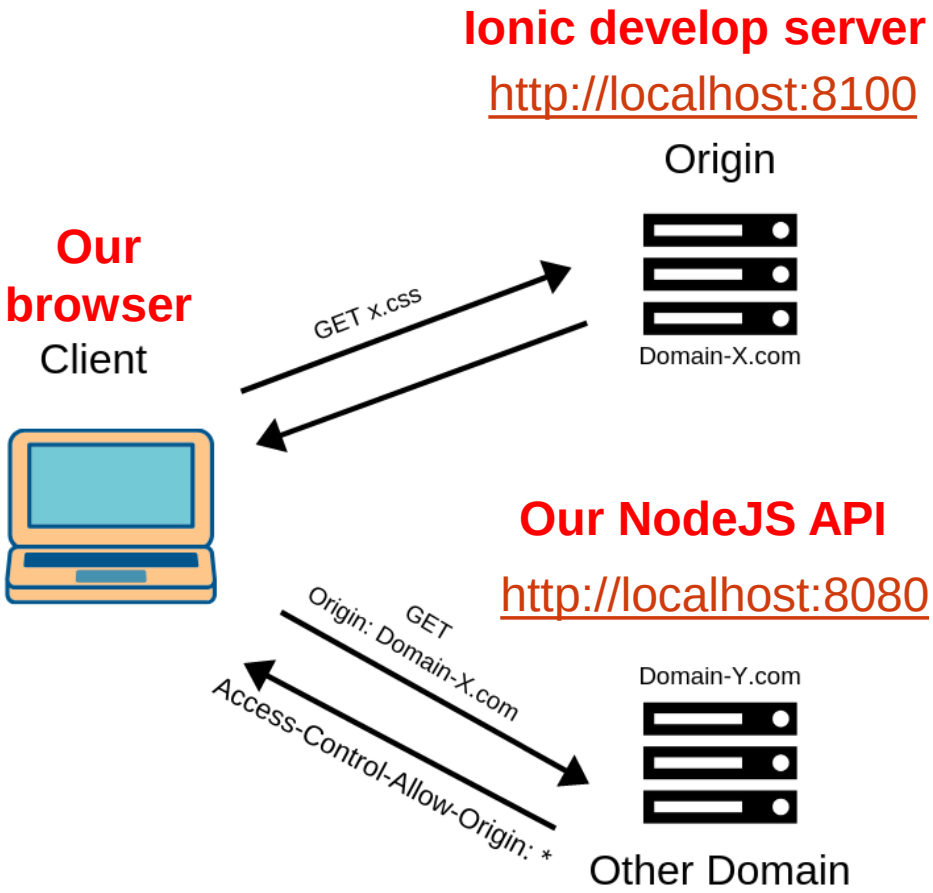


Creating an App with Ionic…
Creating a service to consume an API

In our case…

When we start Ionic we are actually starting a development server that hosts our App in http://localhost:8100

And of course our API is in http://localhost:8080 so we are accessing cross domain resources



Creating an App with Ionic...
Creating a service to consume an API

Returning the CORS permission from the API

For this we install the package **cors**, and edit **index.js** to include permission for the source domain URL of our Ionic development server

```
BACKEND
  config
    db.config.js
  controllers
    bicycle.controller.js
  models
    bicycle.model.js
    index.js
  node_modules
  routes
    bicycle.routes.js
  index.js
  package-lock.json
  package.json
```

index.js > ...

```
1  const express = require("express");
2  const cors = require("cors");
3
4  const app = express();
5
6  var corsOptions = {
7    origin: "http://localhost:8100"
8  };
9
10 app.use(cors(corsOptions));
11
12 // parse requests of content-type - app
13 app.use(express.json());
14
15 // parse requests of content-type - app
16 app.use(express.urlencoded({ extended:
17
18 const db = require("./models");
```

PROBLEMAS SALIDA CONSOLA DE DEPURACIÓN TERMINAL

```
PS C:\MisCosas\Casa\Bicycles\backend> npm install cors

added 2 packages, and audited 84 packages in 1s

found 0 vulnerabilities
PS C:\MisCosas\Casa\Bicycles\backend>
```

Creating an App with Ionic...
Creating a service to consume an API

```
tibur@DESKTOP-O2362TM MINGW64 /c/MisCosas/Casa/Bicycles/backend
$ node index.js
```

GET http://localhost:8080/api/bicycles Send

Params Auth Headers (6) Body Pre-req. Tests Settings Cookies

Body 200 OK 37 ms 594 B Save Response

Pretty Raw Preview Visualize JSON


```
[
    {
        "id": 1,
        "brand": "BH",
        "model": "star",
        "createdAt": "1980-01-01T00:00:00.000Z",
        "updatedAt": "1980-01-01T00:00:00.000Z"
    },
    {
        "id": 2,
        "brand": "Orbea",
        "model": "sky",
        "createdAt": "1980-01-01T00:00:00.000Z",
        "updatedAt": "1980-01-01T00:00:00.000Z"
    },
    {
        "id": 3,
        "brand": "Torrot",
        "model": "sc arlett",
        "createdAt": "1980-01-01T00:00:00.000Z",
        "updatedAt": "1980-01-01T00:00:00.000Z"
    }
]
```

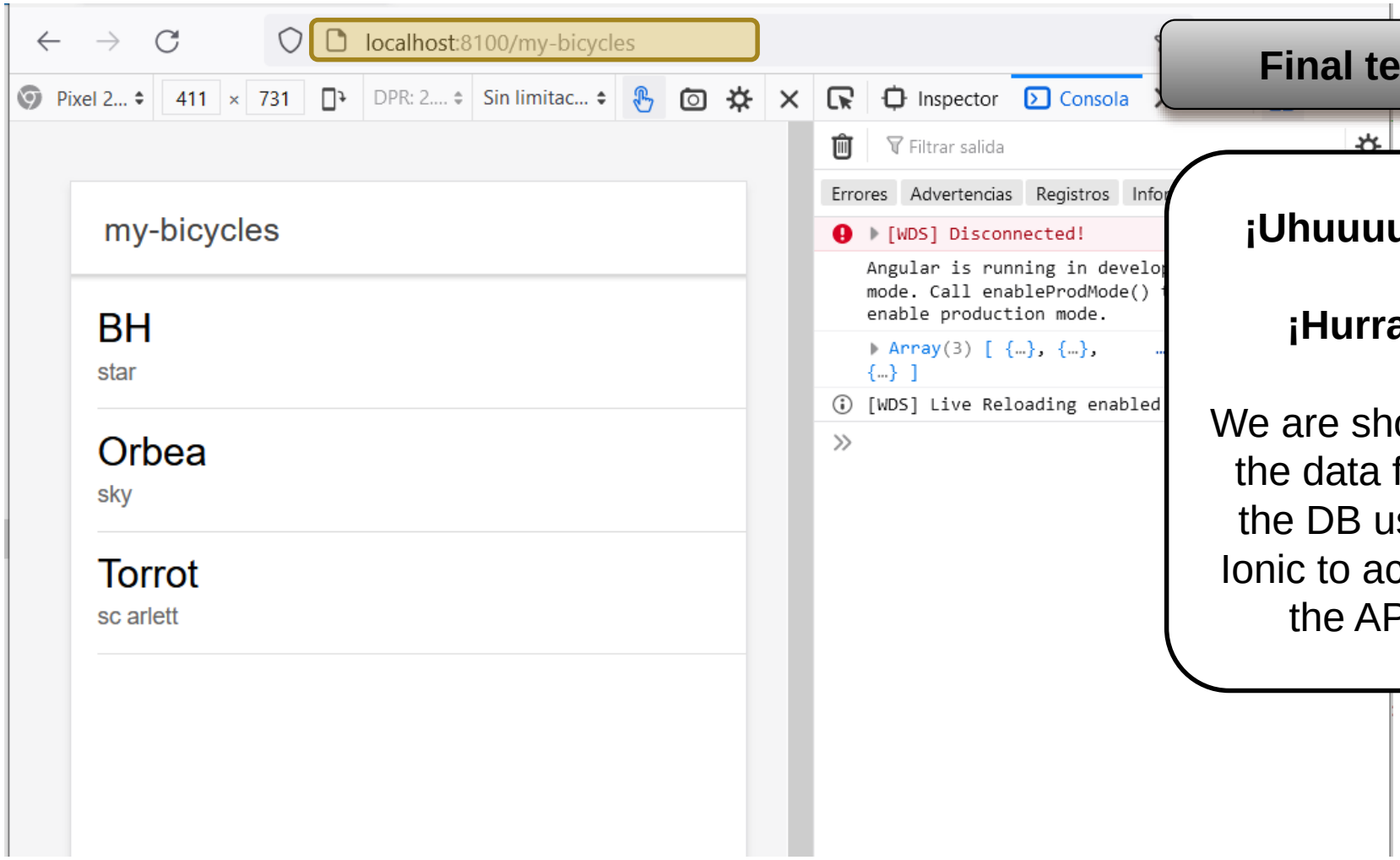

Reboot your API

Then add some records to your DB and check that there is data

If your data has been deleted it is because in your API you must remove the option **force: true**

Do you remember?

Creating an App with Ionic...
Creating a service to consume an API



Final test

¡Uhuuuu…!

¡Hurra!

We are showing the data from the DB using Ionic to access the API

Keep on learning...

Finish this example to get the full CRUD:

- https://remotestack.io/ionic-http-requests-with-httpclient-get-post-put-delete-tutorial/

¡Be carefull with the versions!

As of the creation of this tutorial, you should be working with version 5 of Ionic.

The Ionic 4 tutorials can still serve you mostly.

But the previous ones already have enough differences

Conclussions

What have we learned so far?

- We have simply consumed an API to display the data obtained through the GET method in Ionic.
- For this we had to learn in Ionic how to create a page, the routing to go from page to page, we have created a service, we have imported a module, and surely other things that I miss now…
- We have also learned about CORS.

Next steps…

- Finish the CRUD following the recommended tutorial.