



Desenvolvimento Mobile usando HTML5  
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Módulo 4 - Ionic2  
Laboratório DespesasApp - 16/10/2017

LINK <https://goo.gl/H7Mj9C>

## DespesasApp usando ionic 2

1. Instalar o node.js (6.11.0), inclui o npm 3.10.10;
2. Criar o projeto:

```
ionic start DespesasAppIonic blank --type=ionic-angular
```

Passo opcional: Instale o Atom.io com o plugins de typescript, emmet, angular2 e ionic-preview;

3. Entrar na pasta de projeto DespesasApp:

```
cd DespesasAppIonic
```

4. Testar o projeto recém-criado:

```
ionic serve
```

5. Acesse <http://localhost:8100/>:



6. Alterar em **./src/index.html**:

```
<meta charset="UTF-8">
  <title>DespesasApp Ionic App</title>
  <meta name="viewport" content="width=device-width,
initial-scale=1.0, minimum-scale=1.0, maximum-scale=1.0,
user-scalable=no">
  <base href="/">
```

7. Criar uma pasta models em **./src**;

8. Criar uma arquivo despesa.ts em **./src/models**;

9. Alterar em **./src/models/despesa.ts**:

```
export class Despesa {
  id: number;
```

```

    tipo: string;
    icone: string;
    nome: string;
    data: Date;
    valor: number;

    constructor(
    id: number,
    tipo: string,
    icone: string,
    nome: string,
    data: Date,
    valor: number)
    {
        this.id = id;
        this.tipo = tipo;
        this.icone = icone;
        this.nome = nome;
        this.data = data;
        this.valor = valor;
    }
}

```

#### 10. Alterar em ./src/pages/home/home.ts:

```

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

import { NavController } from 'ionic-angular';

import { Despesa } from '../../../models/despesa';

@Component({
  selector: 'page-home',
  templateUrl: 'home.html'
})
export class HomePage {
  despesas: Despesa[];

  constructor(public navCtrl: NavController) {
    this.despesas = [new Despesa(1, "Mercado", "cart", "Extra",
new Date("2016-10-01T03:00:00-03:00"), 200.5),
new Despesa(2, "Lazer", "ios-film",
"Cinemark", new Date("2016-10-20T03:00:00-03:00"), 59.9)];
  }
}

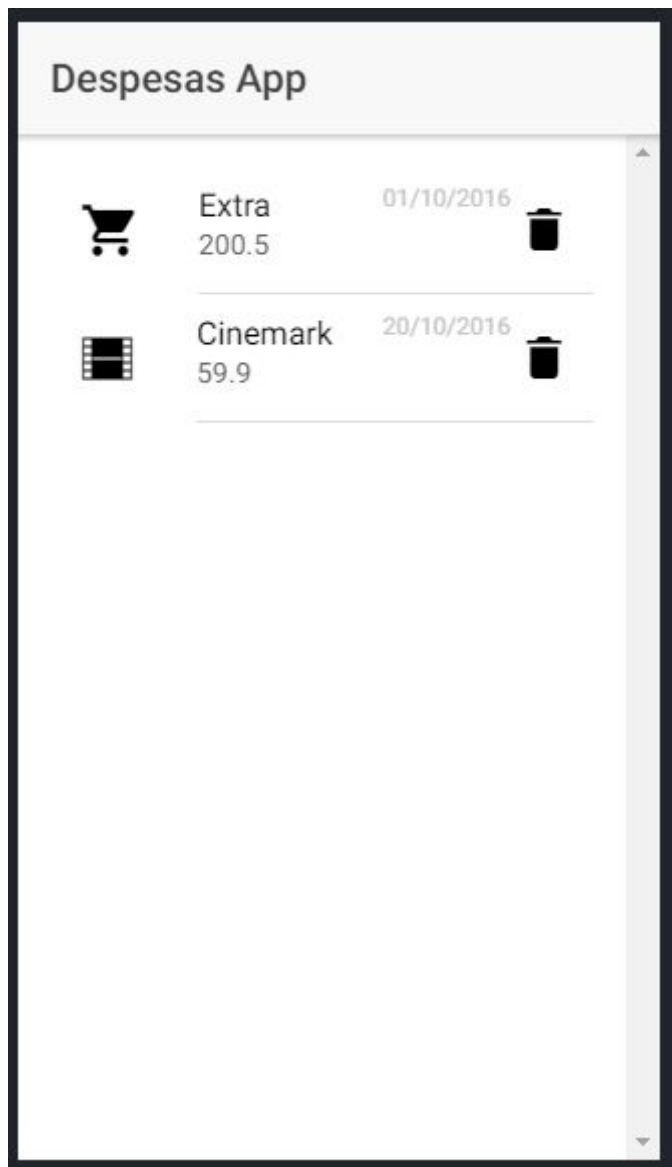
```

## 11. Alterar em ./src/pages/home/home.html:

```
<ion-header>
  <ion-navbar>
    <ion-title>
      Despesas AppDespesas Appionic Blank
    </ion-title>
  </ion-navbar>
</ion-header>

<ion-content padding>

  <ion-item *ngFor="let despesa of despesas">
    <ion-icon name="{{despesa.icone}}" item-left large></ion-icon>
    <h2>{{despesa.nome}}</h2>
    <p>{{despesa.valor}}</p>
    <ion-note item-right>{{despesa.data | date:
'dd/MM/yyyy'}}</ion-note>
    <ion-icon name="trash" item-right></ion-icon>
  </ion-item>
—The world is your oyster.
—<p>
—If you get lost, the <a
href="http://ionicframework.com/docs/v2">docs</a> will be your
guide.
—</p>
</ion-content>
```



Criando um: pipe chamado Decimal Br:

```
ionic g pipe decimalBr
```

Alterar em ./src/pipes/decimal-br/decimal-br.pipe.ts:

```
import { Pipe, PipeTransform } from '@angular/core';

/**
 * Generated class for the DecimalBrPipe pipe.
 *
 * See https://angular.io/docs/ts/latest/guide/pipes.html for
 * more info on
 * Angular Pipes.
 */
@Pipe({
  name: 'decimalBr',
```

```

}))
export class DecimalBrPipe implements PipeTransform {
  transform(value: number): string {
    return value.toString().replace(".", "&"),
    "&").replace(".", ",") .replace("&", ".");
  }
}

```

#### 1. Alterar em ./src/pages/home/home.html:

```

<ion-header>
  <ion-navbar>
    <ion-title>
      Despesas App
    </ion-title>
  </ion-navbar>
</ion-header>

<ion-content padding>
  <ion-item *ngFor="let despesa of despesas">
    <ion-icon name="{{despesa.icone}}" item-left
large></ion-icon>
    <h2>{{despesa.nome}}</h2>
    <p>{{despesa.valor | currency:'BRL':true:'1.2-2' | decimalBr
}}</p>
    <ion-note item-right>{{despesa.data | date:
'dd/MM/yyyy'}}</ion-note>
    <ion-icon name="trash" item-right></ion-icon>
  </ion-item>
</ion-content>

```

#### 12. Criar a página add:

```
ionic g page add
```

#### 13. Alterar em ./src/app/app.module.ts:

```

import { BrowserModule } from '@angular/platform-browser';
import { ErrorHandler, NgModule } from '@angular/core';
import { IonicApp, IonicErrorHandler, IonicModule } from
'ionic-angular';
import { SplashScreen } from '@ionic-native/splash-screen';
import { StatusBar } from '@ionic-native/status-bar';

import { DecimalBrPipe } from '../pipes/decimal-br/decimal-br';

import { MyApp } from './app.component';
import { HomePage } from '../pages/home/home';
import { AddPage } from '../pages/add/add';

```

```

@NgModule({
  declarations: [
    MyApp,
    DecimalBrPipe,
    HomePage,
    AddPage
  ],
  imports: [
    IonicModule.forRoot(MyApp)
  ],
  bootstrap: [IonicApp],
  entryComponents: [
    MyApp,
    HomePage,
    AddPage
  ],
  providers: [
    StatusBar,
    SplashScreen,
    {provide: ErrorHandler, useClass: IonicErrorHandler}
  ]
})
export class AppModule {}

```

#### 14. Alterar em ./src/pages/home/home.html:

```

<ion-header>
  <ion-navbar>
    <ion-title>
      Despesas App
    </ion-title>
  </ion-navbar>
</ion-header>

<ion-content padding>
  <ion-item *ngFor="let despesa of despesas">
    <ion-icon name="{{despesa.icone}}" item-left
large></ion-icon>
    <h2>{{despesa.nome}}</h2>
    <p>{{despesa.valor | currency:'BRL':true:'1.2-2' | decimalBr
}}</p>
    <ion-note item-right>{{despesa.data | date:
'dd/MM/yyyy'}}</ion-note>
    <ion-icon name="trash" item-right></ion-icon>
  </ion-item>

  <ion-fab right bottom>
  <button ion-fab color="primary" (click)="add()">
    <ion-icon name="add" color="light" large></ion-icon>
  </button>

```

```
</ion-fab>
</ion-content>
```

#### 15. Alterar em ./src/pages/home/home.ts:

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

import { NavController } from 'ionic-angular';

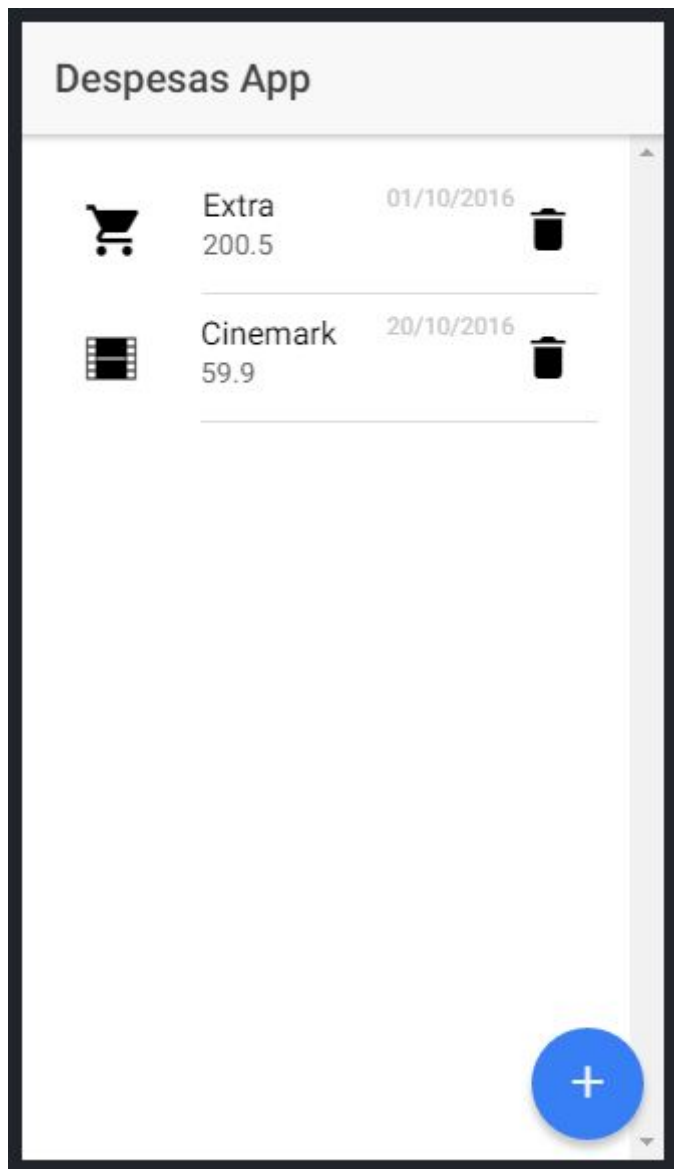
import { Despesa } from '../../../models/despesa';
import { AddPage } from '../add/add';

@Component({
  selector: 'page-home',
  templateUrl: 'home.html'
})
export class HomePage {
  despesas: Despesa[]

  constructor(public navCtrl: NavController) {
    this.despesas = [new Despesa(1, "Mercado", "cart", "Extra",
new Date("2016-10-01T03:00:00-03:00"), 200.5),
                      new Despesa(2, "Lazer", "ios-film",
"Cinemark", new Date("2016-10-20T03:00:00-03:00"), 59.9)];
  }

  add() {
    this.navCtrl.push(AddPage);
  }
}
```





16. Alterar em `./src/app/pages/add/add.ts`:

```
import { Component } from '@angular/core';
import { IonicPage, NavController, NavParams } from
'ionic-angular';

import { Despesa } from '../../../models/despesa';

@IonicPage()
@Component({
  selector: 'page-add',
  templateUrl: 'add.html'
})
export class AddPage {
  despesa: Despesa;
```

```

    constructor(public navCtrl: NavController, public navParams:
NavParams) {

        this.despesa = new Despesa(new Date().getTime(), "", "", "",
new Date(), 0);
    }

    ionViewDidLoad() {
        console.log('ionViewDidLoad AddPage');
    }
}

```

#### 17. Alterar em ./src/app/pages/add/add.html:

```

<ion-header>

    <ion-navbar>
        <ion-title>Adicionar despesa</ion-title>
    </ion-navbar>

</ion-header>

<ion-content padding>

    <ion-list>

        <ion-item>
            <ion-label stacked>Tipo</ion-label>
            <ion-select [(ngModel)]="despesa.tipo">
                <ion-option value="Mercado">Mercado</ion-option>
                <ion-option value="Lazer">Lazer</ion-option>
                <ion-option value="Saúde">Saúde</ion-option>
            </ion-select>
        </ion-item>

        <ion-item>
            <ion-label stacked>Data</ion-label>
            <ion-input type="date" [(ngModel)]="despesa.data"></ion-input>
        </ion-item>

        <ion-item>
            <ion-label stacked>Nome</ion-label>
            <ion-input type="text" [(ngModel)]="despesa.nome"></ion-input>
        </ion-item>

        <ion-item>
            <ion-label stacked>Valor</ion-label>
            <ion-input type="number"
[(ngModel)]="despesa.valor"></ion-input>

```

```
</ion-item>

</ion-list>

<button (click)="save();">Salvar despesa</button>

</ion-content>
```

← Adicionar despesa

Categoria  
Saúde ▼

Data  
10/01/2017

Nome  
Dentista

Valor  
500,00

Salvar despesa

18. Instalando o Angular 2 LocalStorage plugin:

```
npm install angular-2-local-storage
```

## 19. Alterar em ./src/app/app.module.ts:

```
import { BrowserModule } from '@angular/platform-browser';
import { ErrorHandler, NgModule } from '@angular/core';
import { IonicApp, IonicErrorHandler, IonicModule } from
'ionic-angular';
import { SplashScreen } from '@ionic-native/splash-screen';
import { StatusBar } from '@ionic-native/status-bar';

import { DecimalBrPipe } from '../pipes/decimal-br/decimal-br';

import { MyApp } from '../app.component';
import { HomePage } from '../pages/home/home';
import { AddPage } from '../pages/add/add';

/* LocalStorage */
import { LocalStorageModule } from 'angular-2-local-storage';

@NgModule({
  declarations: [
    MyApp,
    DecimalBrPipe,
    HomePage,
    AddPage
  ],
  imports: [
    BrowserModule,
    IonicModule.forRoot(MyApp) ,
    LocalStorageModule.withConfig({
      prefix: 'despesasApp',
      storageType: 'localStorage'
    })
  ],
  bootstrap: [IonicApp],
  entryComponents: [
    MyApp,
    HomePage,
    AddPage
  ],
  providers: [
    StatusBar,
    SplashScreen,
    {provide: ErrorHandler, useClass: IonicErrorHandler}
  ]
})
export class AppModule {}
```

## 20. Alterar em ./src/app/pages/home/home.ts:

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

```

import { NavController } from 'ionic-angular';

import { Despesa } from '../models/despesa';
import { AddPage } from '../add/add';

import { LocalStorageService } from 'angular-2-local-storage';

@Component({
  selector: 'page-home',
  templateUrl: 'home.html'
})
export class HomePage {
  despesas: Despesa[]

  constructor(public navCtrl: NavController, private
LocalStorageService: LocalStorageService) {
    this.despesas = [];
    if (this.localStorageService.get("despesas") != null)
    {
      let jsonArray =
JSON.parse(<string>this.localStorageService.get("despesas"));
      for (let jsonObject of jsonArray)
      {
        switch(jsonObject.tipo)
        {
          case "Saúde":
            jsonObject.icone = "medical";
            break;
          case "Mercado":
            jsonObject.icone = "cart";
            break;
          case "Lazer":
            jsonObject.icone = "american-football";
            break;
        }
        this.despesas.push(new Despesa(jsonObject.id,
jsonObject.tipo, jsonObject.icone, jsonObject.nome, new
Date(jsonObject.data), jsonObject.valor));
      }
    }

    this.despesas = [new Despesa(1, "Mercado", "cart", "Extra",
new Date("2016-10-01T03:00:00-03:00"), 200.5),
    new Despesa(2, "Lazer", "ios-film",
"Cinemark", new Date("2016-10-20T03:00:00-03:00"), 59.9)];
  }

  add() {
    this.navCtrl.push(AddPage);
  }
}

```

```
}
```

## 21. Alterar em ./src/app/pages/add/add.ts:

```
import { Component } from '@angular/core';
import { NavController, NavParams } from 'ionic-angular';

import { Despesa } from '../../models/despesa';
import { HomePage } from '../../home/home';

import { LocalStorageService } from 'angular-2-local-storage';
/*
  Generated class for the List page.

  See http://ionicframework.com/docs/v2/components/#navigation
  for more info on
  Ionic pages and navigation.
*/
@Component({
  selector: 'page-add',
  templateUrl: 'add.html'
})
export class AddPage {
  despesa: Despesa;
  despesas: Despesa[];

  constructor(public navCtrl: NavController, public navParams:
NavParams, private localStorageService: LocalStorageService) {

    this.despesa = new Despesa(new Date().getTime(), "", "", "",
new Date(), 0);
  }

  ionViewDidLoad() {
    console.log('ionViewDidLoad AddPage');
  }

  save() {
    this.despesas = [];
    if (this.localStorageService.get("despesas") != null)
    {
      let jsonArray =
JSON.parse(<string>this.localStorageService.get("despesas"));
      for (let jsonObject of jsonArray)
      {
        this.despesas.push(new Despesa(jsonObject.id,
jsonObject.tipo, jsonObject.icone, jsonObject.nome, new
Date(jsonObject.data), jsonObject.valor));
      }
    }
  }
}
```

```

        this.despesas.push(this.despesa);
        this.localStorageService.set("despesas",
JSON.stringify(this.despesas));

        this.navCtrl.push(HomePage);
    }
}

```

Delete

## 22. Alterar em ./src/app/pages/home/home.html:

```

<ion-header>
  <ion-navbar>
    <ion-title>
      Despesas App
    </ion-title>
  </ion-navbar>
</ion-header>

<ion-content padding>
  <ion-item *ngFor="let despesa of despesas"
[hidden]="despesa.deleted"><!-- Não precisa -->
    <ion-icon name="{{despesa.icone}}" item-left
large></ion-icon>
    <h2>{{despesa.nome}}</h2>
    <p>{{despesa.valor | currency:'BRL':true:'1.2-2' | decimalBr
}}</p>
    <ion-note item-right>{{despesa.data | date:
'dd/MM/yyyy'}}</ion-note>
    <ion-icon name="trash" item-right
(click)="del(despesa.id)"></ion-icon>
  </ion-item>

  <ion-fab right bottom>
    <button ion-fab color="primary" (click)="add()">
      <ion-icon name="add" color="light" large></ion-icon>
    </button>
  </ion-fab>
</ion-content>

```

## 23. Alterar em ./src/models/despesa.ts:

```

export class Despesa {
  id: number;
  tipo: string;
  icone: string;
  nome: string;
  data: Date;
}

```

```

    valor: number;
    deleted: boolean;

    constructor(
      id: number,
      tipo: string,
      icone: string,
      nome: string,
      data: Date,
      valor: number)
    {
      this.id = id;
      this.tipo = tipo;
      this.icone = icone;
      this.nome = nome;
      this.data = data;
      this.valor = valor;
    }
  }
}

```

#### 24. /src/app/pages/home/home.ts:

```

import { Component } from '@angular/core';
import { NavController } from 'ionic-angular';

import { Despesa } from '../../../models/despesa';

import { AddPage } from '../add/add';

import { LocalStorageService } from 'angular-2-local-storage';

@Component({
  selector: 'page-home',
  templateUrl: 'home.html'
})
export class HomePage {
  despesas: Despesa[];

  constructor(public navCtrl: NavController, private
localStorageService: LocalStorageService) {

    this.despesas = [];
    if (this.localStorageService.get("despesas") != null)
    {
      let jsonArray =
JSON.parse(<string>this.localStorageService.get("despesas"));
      for (let jsonObject of jsonArray)
      {
        switch(jsonObject.tipo)
        {

```



```

        case "Saúde":
            jsonObject.icone = "medical";
            break;
        case "Mercado":
            jsonObject.icone = "cart";
            break;
        case "Lazer":
            jsonObject.icone = "american-football";
            break;
    }
    this.despesas.push(new Despesa(jsonObject.id,
jsonObject.tipo, jsonObject.icone, jsonObject.nome, new
Date(jsonObject.data), jsonObject.valor));
    }
}

add() {
    this.navCtrl.push(AddPage);
}

del(id)
{
    for (var i=0; i < this.despesas.length; i++)
    {
        if (this.despesas[i].id == id)
        {
            this.despesas[i].deleted = true;
            this.despesas.splice(i, 1);
        }
    }
    this.localStorageService.set("despesas",
JSON.stringify(this.despesas));
}
}

```

25. Site do Ionic, criar uma conta, criar um app, solicitar id.

26. `npm install @ionic/cloud-angular --save`

27. s

28. Alterar em `./src/app/app.module.ts`:

```

import { BrowserModule } from '@angular/platform-browser';
import { ErrorHandler, NgModule } from '@angular/core';
import { IonicApp, IonicErrorHandler, IonicModule } from
'ionic-angular';
import { SplashScreen } from '@ionic-native/splash-screen';
import { StatusBar } from '@ionic-native/status-bar';

```

```

import { DecimalBrPipe } from '../pipes/decimal-br/decimal-br';

import { MyApp } from '../app.component';
import { HomePage } from '../pages/home/home';
import { AddPage } from '../pages/add/add';

/* LocalStorage */
import { LocalStorageModule } from 'angular-2-local-storage';

import { CloudSettings, CloudModule } from '@ionic/cloud-angular';

const cloudSettings: CloudSettings = {
  'core': {
    'app_id': '81d1d2f1'
  }
};

@NgModule({
  declarations: [
    MyApp,
    DecimalBrPipe,
    HomePage,
    AddPage
  ],
  imports: [
    BrowserModule,
    IonicModule.forRoot(MyApp),
    LocalStorageModule.withConfig({
      prefix: 'despesasApp',
      storageType: 'localStorage'
    }),
    CloudModule.forRoot(cloudSettings)
  ],
  bootstrap: [IonicApp],
  entryComponents: [
    MyApp,
    HomePage,
    AddPage
  ],
  providers: [
    StatusBar,
    SplashScreen,
    {provide: ErrorHandler, useClass: IonicErrorHandler}
  ]
})
export class AppModule {}

```

Alterar em ionic.config.json

```
{
```

```
"name": "DespesasApplonic",  
"app_id": "81d1d2f1",  
"type": "ionic-angular"  
}
```

```
ionic upload
```