

Projeto Ionic Firebase Login - Explicacao doCodigo

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 { AppRoutingModuleModule } from './app-routing.module';

import { AngularFireModule } from '@angular/fire/compat';
import { AngularFireAuthModule } from '@angular/fire/compat/auth';

import { environment } from '../environments/environment';
import { FormsModule } from '@angular/forms';

@NgModule({
  declarations: [AppComponent], // Declara o componente principal do app
  imports: [
    BrowserModule, // Necessário para rodar em browser
    IonicModule.forRoot(), // Configura Ionic
    AppRoutingModuleModule, // Importa as rotas da aplicação
    FormsModule, // Permite usar ngModel para formulários
    AngularFireModule.initializeApp(environment.firebase), // Inicializa Firebase
    AngularFireAuthModule // Módulo para autenticação Firebase
  ],
  providers: [{ provide: RouteReuseStrategy, useClass: IonicRouteStrategy }],
  bootstrap: [AppComponent], // Componente inicial da aplicação
})
export class AppModule {}
```

home.page.ts

```
import { Component } from '@angular/core';
import { AngularFireAuth } from '@angular/fire/compat/auth';
import { ToastController } from '@ionic/angular'; // Importa o controlador de toasts

@Component({
  selector: 'app-home',
  templateUrl: 'home.page.html',
  styleUrls: ['home.page.scss'],
})
```

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```
  })
  export class HomePage {
    email = '';          // Armazena email digitado
    password = '';        // Armazena senha digitada
    errorMessage = '';    // Mensagem de erro exibida na tela
    loading = false;      // Controle do estado de loading do login

    constructor(
      private afAuth: AngularFireAuth, // Serviço de autenticação do Firebase
      private toastController: ToastController // Serviço para exibir toasts
    ) {}

    async login() {
      this.loading = true;      // Ativa loading enquanto tenta logar
      this.errorMessage = '';   // Limpa mensagens de erro anteriores
      try {
        await this.afAuth.signInWithEmailAndPassword(this.email, this.password); // Tenta
logar
        // Exibe toast no topo confirmando sucesso
        const toast = await this.toastController.create({
          message: 'Login realizado com sucesso!',
          duration: 2000,
          position: 'top',
          color: 'success'
        });
        toast.present();
      } catch (error: any) {
        this.errorMessage = error.message; // Exibe erro caso falhe login
      } finally {
        this.loading = false; // Desativa loading após tentativa
      }
    }
  }
}
```

home.page.html

```
<ion-header>
  <ion-toolbar>
    <ion-title>Login Firebase</ion-title>  <!-- Título da página -->
  </ion-toolbar>
</ion-header>
```

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```
<ion-content class="ion-padding">
  <form (ngSubmit)="login()"> <!-- Evento de submit chama login() -->
    <ion-item>
      <ion-label position="floating">Email</ion-label> <!-- Label flutuante -->
      <ion-input type="email" [(ngModel)]="email" name="email" required></ion-input>
    <!-- Input email -->
  </ion-item>
  <ion-item>
    <ion-label position="floating">Senha</ion-label> <!-- Label flutuante -->
    <ion-input type="password" [(ngModel)]="password" name="password"
required></ion-input> <!-- Input senha -->
  </ion-item>
  <ion-button expand="block" type="submit" [disabled]="loading">Entrar</ion-button>
<!-- Botão submit -->
</form>
  <ion-text color="danger" *ngIf="errorMessage">{{ errorMessage }}</ion-text> <!-- Exibe
erro -->
</ion-content>
```

app-routing.module.ts

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

const routes: Routes = [
  {
    path: '',
    redirectTo: 'home', // Redireciona '/' para '/home'
    pathMatch: 'full'
  },
  {
    path: 'home',
    loadChildren: () => import('./home/home.module').then( m => m.HomePageModule) //
Carrega módulo HomePage
  }
];

@NgModule({
  imports: [
    RouterModule.forRoot(routes, { preloadingStrategy: PreloadAllModules }) // Configura
rotas principais
  ],
```

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```
    exports: [RouterModule]
  })
  export class AppRoutingModule {}
```

environment.ts

```
export const environment = {
  production: false,
  firebase: {
    apiKey: "AIzaSyA6hKgNXUJvZMcPtZQsnvPXvicW88TTJe8", // Chave API Firebase
    authDomain: "teste-756f2.firebaseio.com", // Domínio de
    autenticação Firebase
    projectId: "teste-756f2", // ID do projeto
    Firebase
    storageBucket: "teste-756f2.appspot.com", // Bucket de
    armazenamento Firebase
    messagingSenderId: "691094383206", // ID do remetente
    para mensagens
    appId: "1:691094383206:web:80001d8f0b375ce9741ba7", // ID do aplicativo
    Firebase
    measurementId: "G-N6RZKPYB88" // ID para análise de
    uso Firebase
  }
};
```