Game Mania – (UC10 – Atividades).

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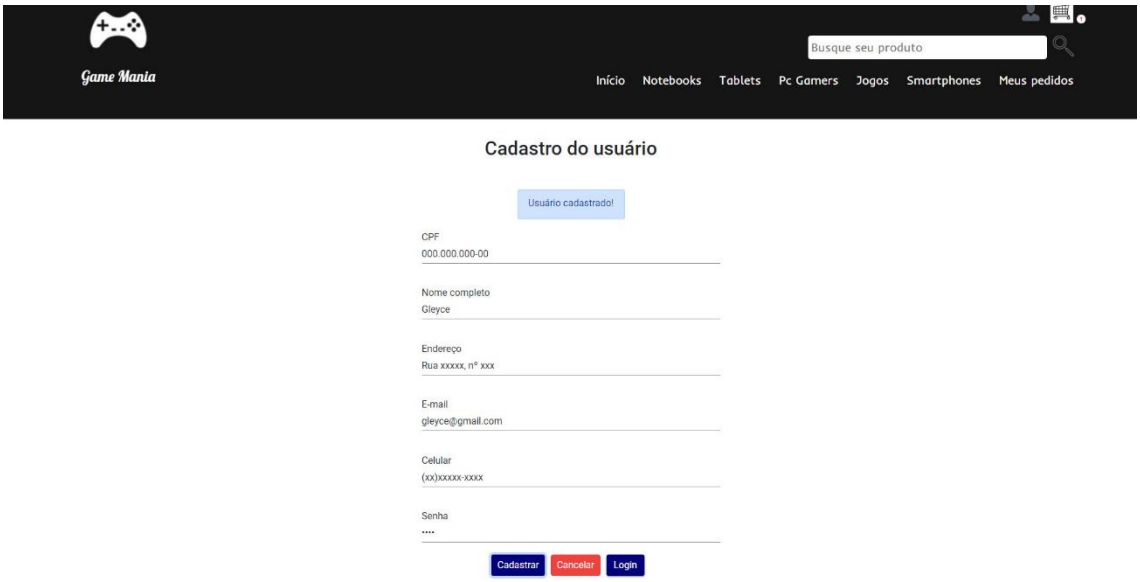
Parte I - CENÁRIOS POSSÍVEIS.

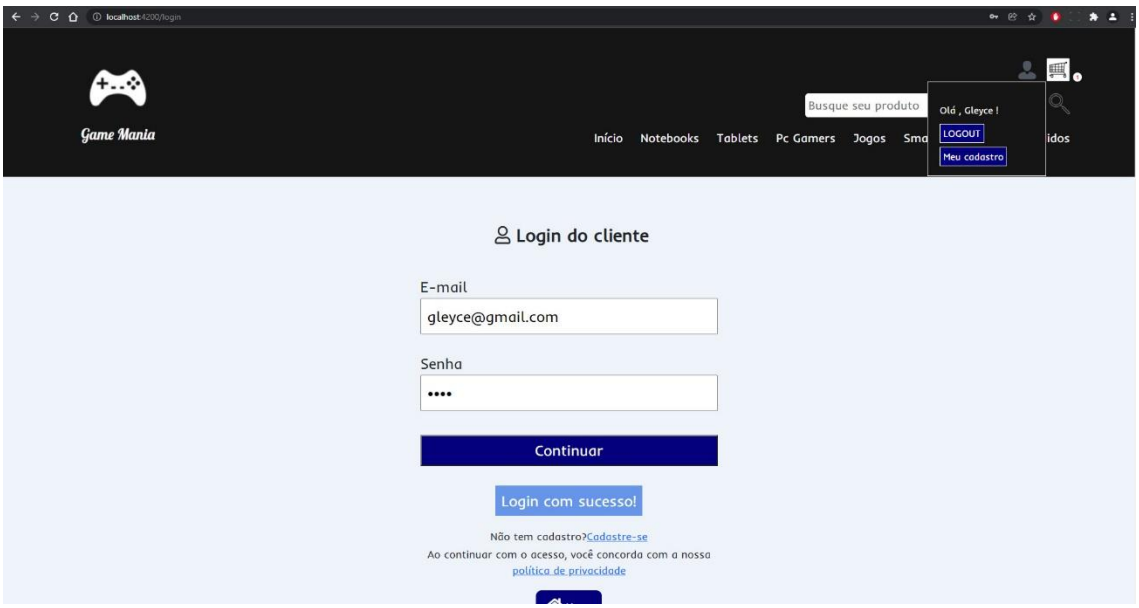
Cadastro de usuário - Com sucesso.

1- Usuário realiza seu cadastro com sucesso.



Login de usuário - com sucesso.

2- Usuário realiza o login com sucesso.



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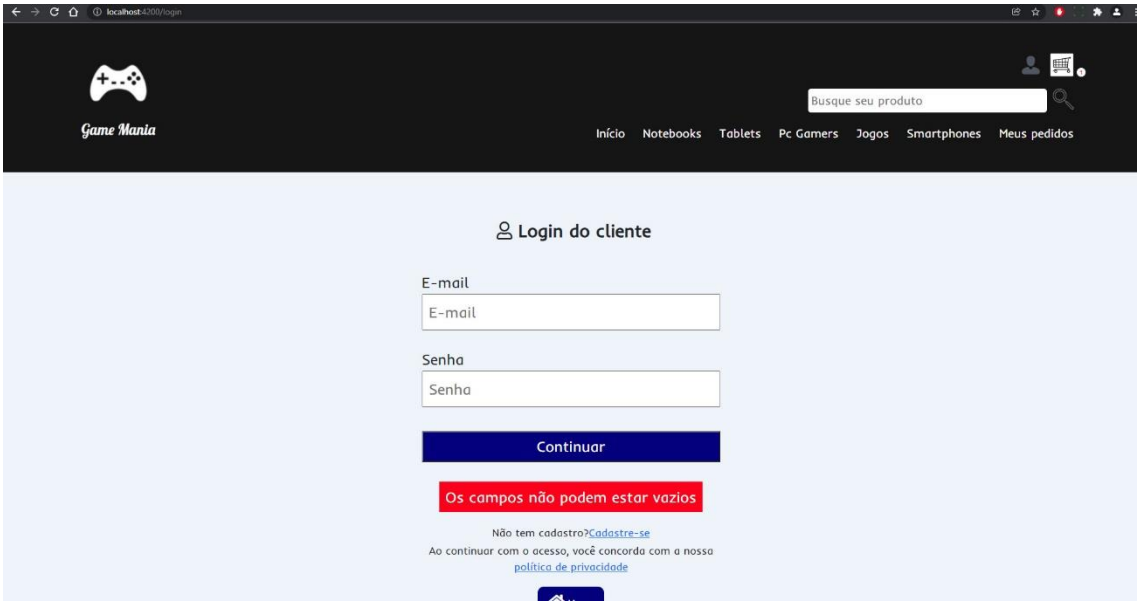
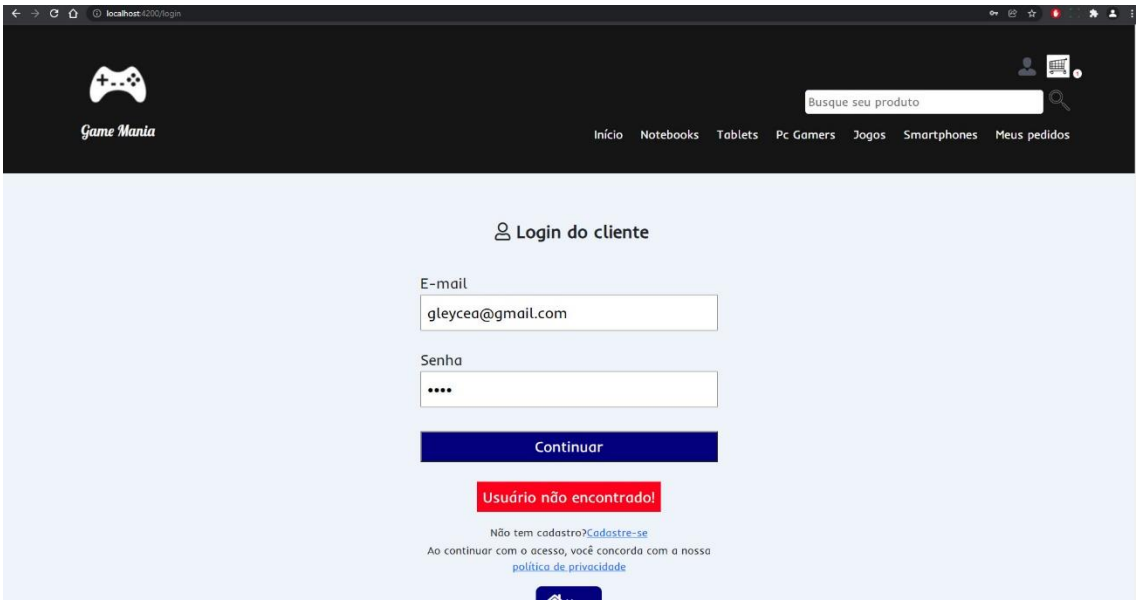
Login de usuário - com erro.

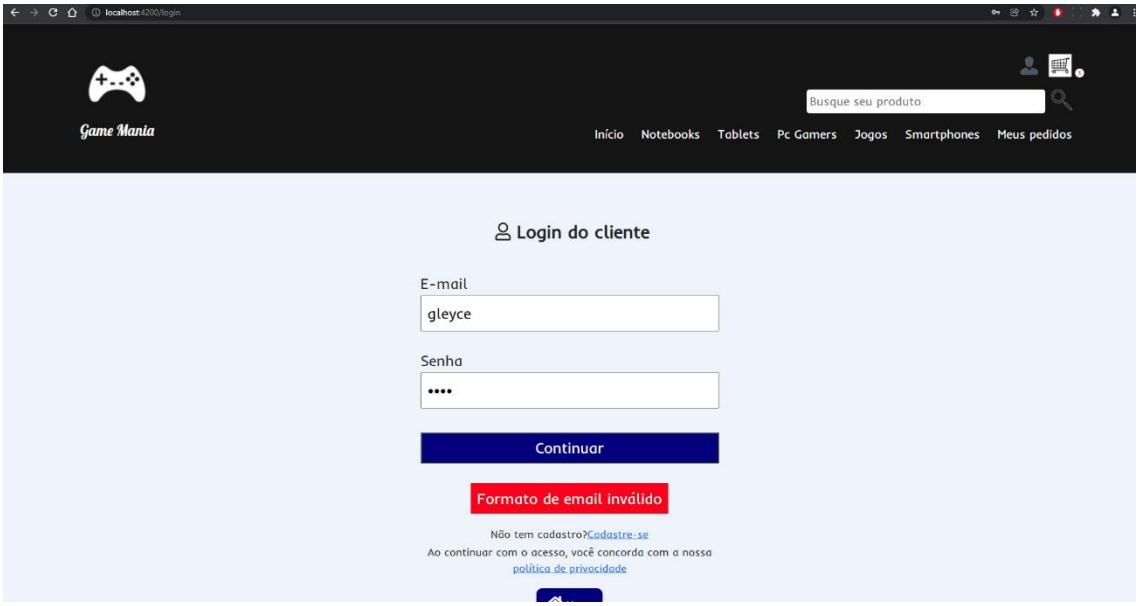
3- Usuário tenta se cadastrar sem preencher os campos de login.



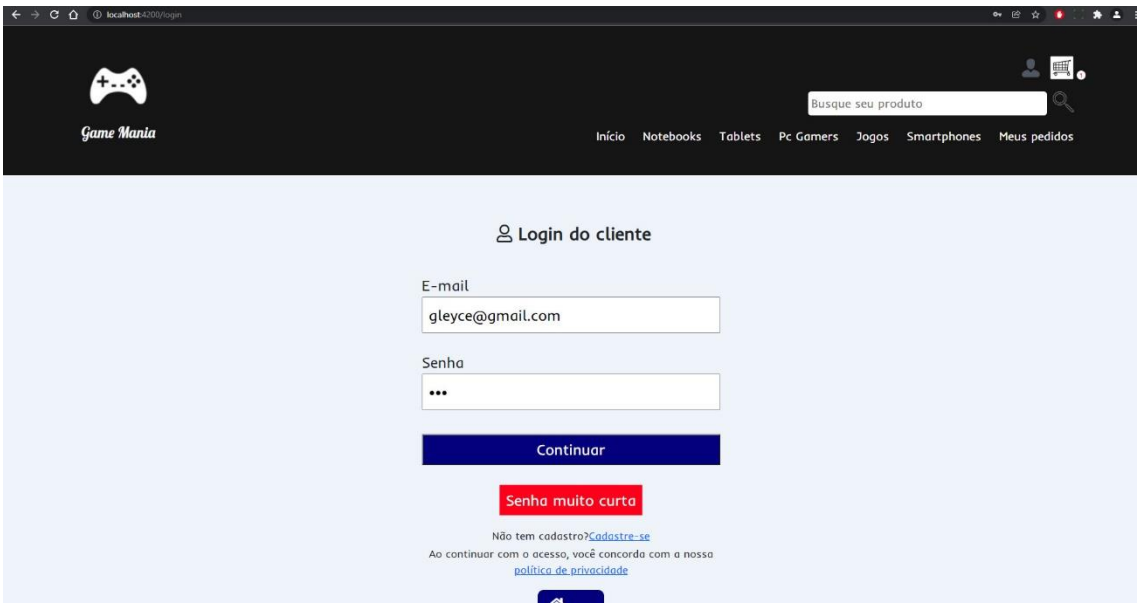
4- Usuário tenta fazer o login com usuário inexistente.



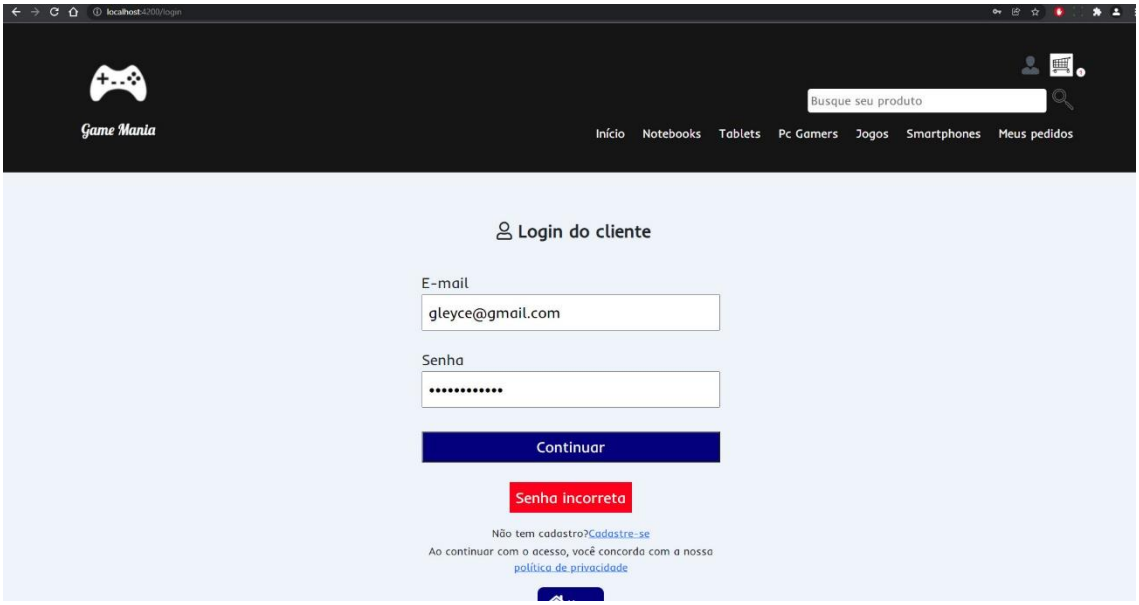
5- Usuário insere formato de e-mail inválido.



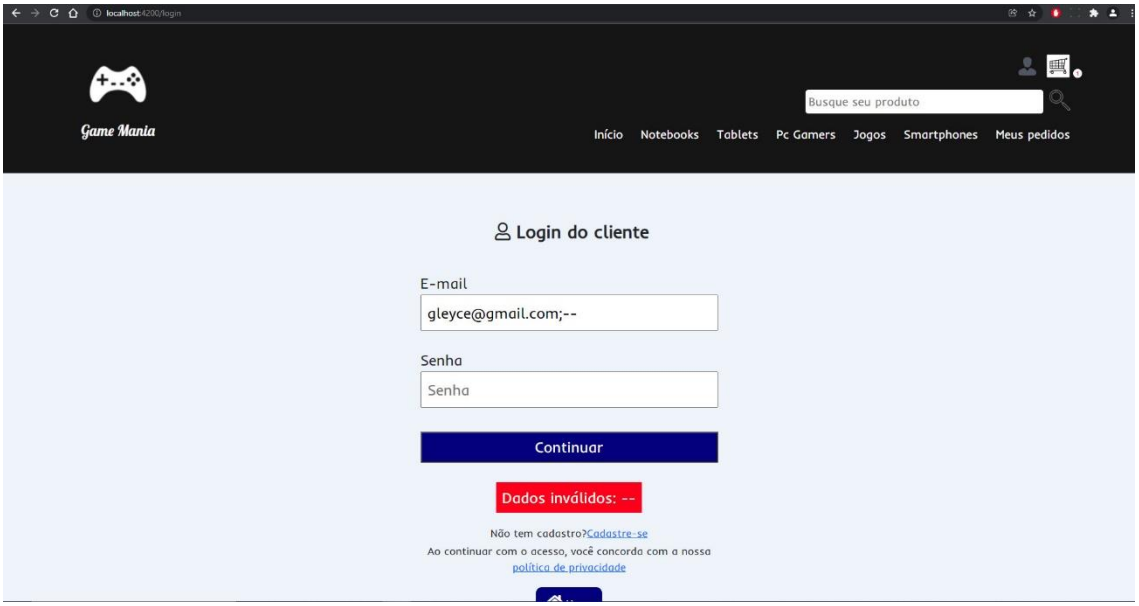
6- Usuário insere senha muito curta.



7- Usuário insere senha incorreta.

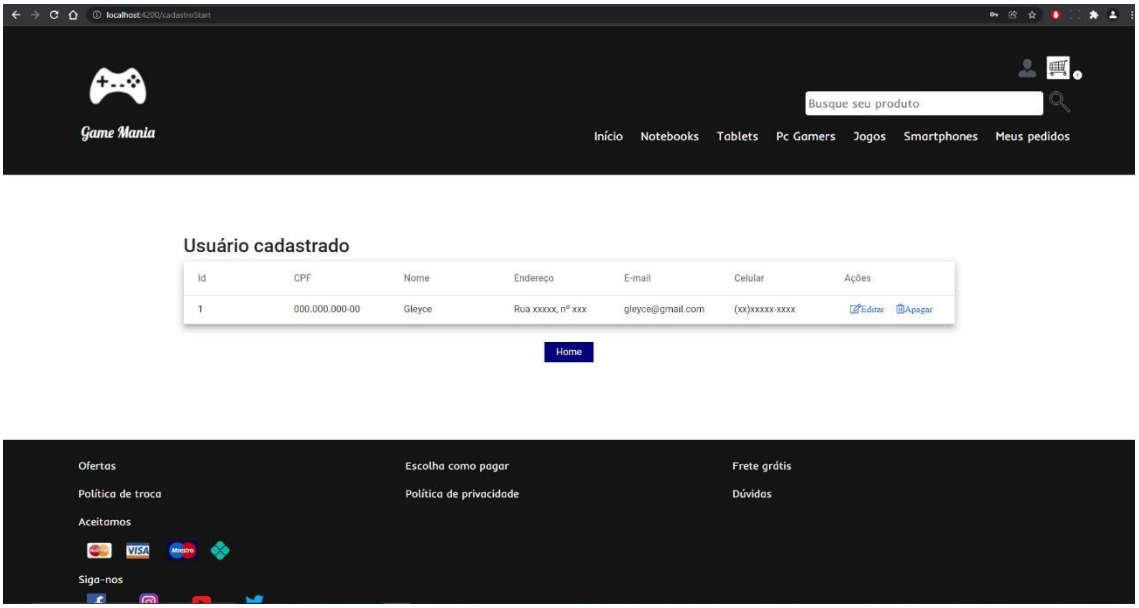


8- Terceiros tentam burlar o sistema para obter dados (SQL Injection).

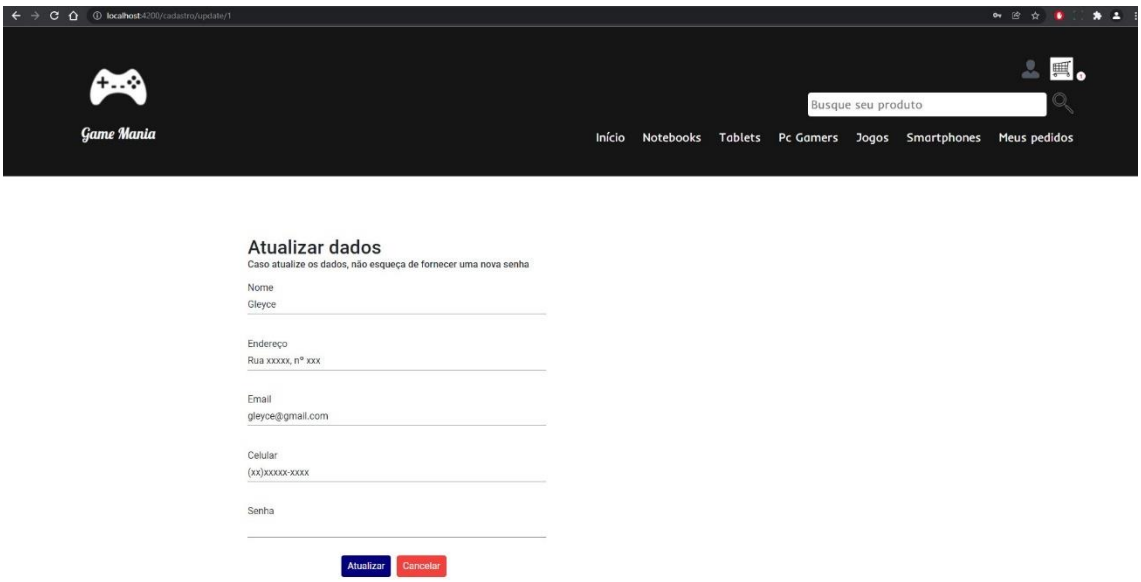


Operações no sistema.

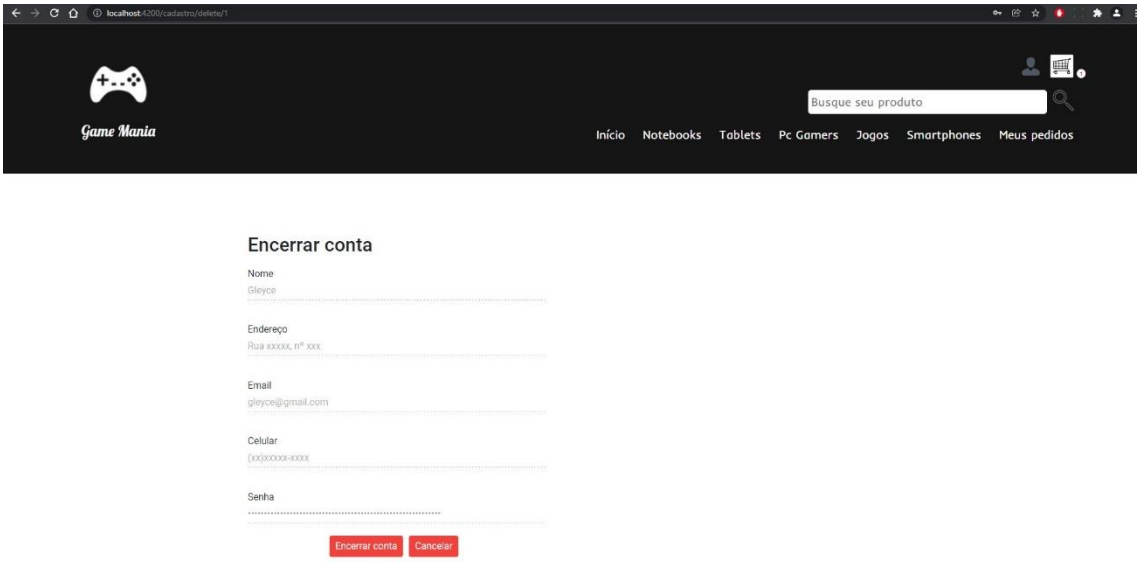
9- Usuário logado pode visualizar seus dados cadastrados.



10- Usuário logado pode atualizar seus dados.



11- Usuário logado pode apagar seu cadastro, encerrando sua conta.



<u>PARTE II - Estrutura do código</u>

login.ts

```
export class Login {
    constructor(
        public email: string  = "",
        public password?: string ,
        public id: number = 1
    ){}
}
```

cadastro.model.ts

```
export interface Cadastro{
    id?: number,
    ssn: string,
    name: string,
    address: string,
    email: string,
    mobile: string,
    password: string
}
```

db.json

```
db.json M ×
backend > db.json > ...
1  {
2    "users": [
3      {
4        "email": "gleyce@gmail.com",
5        "password": "$2a$10$bzJP1X.Uy/lRIrM0HqNC3OPO0Kww3VIpaicLgmnEnMrVHnliVXb6a",
6        "ssn": "000.000.000-00",
7        "name": "Gleyce",
8        "mobile": "(xx)xxxxx-xxxx",
9        "address": "Rua xxxxx, nº xxx",
10       "id": 1
11     }
12   ]
13 }
```

Para Login

login.service.ts

```
import { Observable} from 'rxjs';
import { HttpClient, HttpHeaders } from '@angular/common/http';
import { Injectable } from '@angular/core';
import { Login } from '../models/login';


@Injectable({
  providedIn: 'root'
})
export class LoginService {

  url = "http://localhost:3000/login"

  constructor(private httpClient: HttpClient) { }

  login(user: Login): Observable<any>{
      return this.httpClient.post(this.url, JSON.stringify(user), {
          headers: new HttpHeaders({'Content-Type': 'application/json'}),
          observe: 'response',
      })
  }

}
```

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login.component.ts

```
import { Component, OnInit } from '@angular/core';
import { Login } from 'src/app/models/login';
import { LoginService } from 'src/app/services/login.service';
import { LoginStatus } from 'global';
import { StatusService } from 'src/app/services/status.service';
import { Router } from '@angular/router';

@Component({
  selector: 'app-login',
  templateUrl: './login.component.html',
  styleUrls: ['./login.component.css']

})
export class LoginComponent implements OnInit {

  loginStatus: LoginStatus = new LoginStatus("", "", false);

  public loginModel = new Login();

  message: string = '';
  responseStatus: string = '';

  constructor(private loginService: LoginService,  private statusService: StatusService,
     private router: Router) {}

  ngOnInit(): void {
     this.statusService.currentStatus.subscribe(status => this.loginStatus = status)
  }

  onSubmit(){

    const blacklist: string[] = ["select ", "from ", "drop ", "or ", "having ",
    "group ", "by ", "insert ", "exec ", "\"", "\'", "--", "#", "*", ";"];

    for(let i = 0 ; i < blacklist.length; i++){
      if(this.loginModel.email.toLowerCase().includes(blacklist[i])){
          this.message = "Dados inválidos: " + blacklist[i];
          return;
      }
    }

    this.loginService.login(this.loginModel).subscribe((response) => {

        this.message = "Login com sucesso!";
        this.responseStatus = response.status;

        this.loginStatus.email = (JSON.parse(JSON.stringify(response.body.user))).email;
        this.loginStatus.username = (JSON.parse(JSON.stringify(response.body.user))).name;
        this.loginStatus.active = true;

        this.statusService.changeStatus(this.loginStatus);

        setTimeout(() => {
           this.router.navigateByUrl('');
        }, 2000);

    }, err => {

       if(err.error == "Email and password are required"){
          this.message = "Os campos não podem estar vazios";
       }else if(err.error == "Email format is invalid"){
          this.message = "Formato de email inválido";
       }else if(err.error == "Cannot find user"){
          this.message = "Usuário não encontrado!";
       }else if(err.error == "Password is too short"){
          this.message = "Senha muito curta";
       }else if(err.error == "Incorrect password"){
          this.message = "Senha incorreta";
       }

    })
  }

}
```

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Para cadastro
cadastro.service.ts (serviço para realizar o CRUD em relação aos usuários).

```
import { Injectable } from '@angular/core';
import { MatSnackBar } from '@angular/material/snack-bar';
import { HttpClient } from '@angular/common/http';
import { Cadastro } from './cadastro.model';
import { catchError, map } from 'rxjs/operators';
import { EMPTY, Observable } from 'rxjs';


@Injectable({
  providedIn: 'root'
})
export class CadastroService {

  baseUrl = "http://localhost:3000/users"

  constructor(private snackBar: MatSnackBar, private http: HttpClient ) { }

  showMessage(msg: string, isError: boolean = false): void{
     this.snackBar.open(msg, 'X', {
       duration: 3000,
       verticalPosition: "top",
       panelClass: isError ? ['errorMsg'] : ['successMsg']
     })
  }

  create(cadastro: Cadastro): Observable<Cadastro>{
      return this.http.post<Cadastro>(this.baseUrl, cadastro).pipe(
        map((obj) => obj),
        catchError(e => this.errorMsg(e))
      )
  }

  errorMsg(e: any){
     console.log(e);
     this.showMessage('Erro - E-mail já existe', true);
     return EMPTY;
  }

  read(): Observable<Cadastro[]>{
       return this.http.get<Cadastro[]>(this.baseUrl).pipe(
          map((obj) => obj),
          catchError(e => this.errorMsgLoad(e))
       );
  }

  errorMsgLoad(e: any){
    console.log(e);
    this.showMessage('Erro no carregamento', true);
    return EMPTY;
  }

  readById(id: number): Observable<Cadastro>{
    const url = `${this.baseUrl}/${id}`;
    return this.http.get<Cadastro>(url);
  }

  updateCadastro(cadastro: Cadastro): Observable<Cadastro>{
    const url = `${this.baseUrl}/${ cadastro.id }`;
    return this.http.put<Cadastro>(url, cadastro);
  }

  deleteCadastro(cadastro: Cadastro): Observable<Cadastro>{
    const url = `${this.baseUrl}/${cadastro.id}`;
    return this.http.delete<Cadastro>(url);
  }

}
```

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cadastro-create.component.ts (criar cadastro)

```
import { Component, OnInit } from '@angular/core';
import { Router } from '@angular/router';
import { Cadastro } from '../cadastro.model';
import { CadastroService } from '../cadastro.service';


@Component({
  selector: 'app-cadastro-create',
  templateUrl: './cadastro-create.component.html',
  styleUrls: ['./cadastro-create.component.css']
})
export class CadastroCreateComponent implements OnInit {

  cadastro: Cadastro = {
    ssn: '',
    name: '',
    email: '',
    mobile: '',
    address: '',
    password: ''
  }

  message: string = '';

  constructor( private cadastroService: CadastroService, private router: Router) {

  }

  ngOnInit(): void {
  }

  createCadastro(): void{
    this.cadastroService.create(this.cadastro).subscribe(() => {
        this.message = "Usuário cadastrado!";
        setTimeout(() => {
            this.router.navigateByUrl('login');
        }, 2000);
    })
  }

  cancelarCadastro(): void{
    this.router.navigate([''])
  }

  login(){
    this.router.navigate(['login']);
  }

}
```

cadastro-update.component.ts (atualizar cadastro).

```
import { Component, OnInit } from '@angular/core';
import { ActivatedRoute, Router } from '@angular/router';
import { Cadastro } from '../cadastro.model';
import { CadastroService } from '../cadastro.service';

@Component({
  selector: 'app-cadastro-update',
  templateUrl: './cadastro-update.component.html',
  styleUrls: ['./cadastro-update.component.css']
})
export class CadastroUpdateComponent implements OnInit {

  newPassword : string = '';

  cadastro = {} as Cadastro;

  constructor(private cadastroService: CadastroService,
              private router: Router,
              private route: ActivatedRoute) { }

  ngOnInit(): void {
    const id = +this.route.snapshot.paramMap.get('id')!;
    this.cadastroService.readById(id).subscribe(cadastro => {
          this.cadastro.id = cadastro.id;
          this.cadastro.ssn = cadastro.ssn;
          this.cadastro.name = cadastro.name;
          this.cadastro.address = cadastro.address;
          this.cadastro.email = cadastro.email;
          this.cadastro.mobile = cadastro.mobile;
    })

  }

  updateCadastro(){
    this.cadastro.password = this.newPassword;
    this.cadastroService.updateCadastro(this.cadastro).subscribe(() => {

      this.cadastroService.showMessage('O usuário foi atualizado');
      this.router.navigateByUrl('/cadastroStart');
    })
  }

  cancelarCadastro(): void{
    this.router.navigateByUrl('/cadastroStart');
  }

}
```

cadastro-delete.component.ts (apagar cadastro).

```
import { StatusService } from '../../../../services/status.service';
import { Component, OnInit } from '@angular/core';
import { ActivatedRoute, Router } from '@angular/router';
import { Cadastro } from '../cadastro.model';
import { CadastroService } from '../cadastro.service';

@Component({
  selector: 'app-cadastro-delete',
  templateUrl: './cadastro-delete.component.html',
  styleUrls: ['./cadastro-delete.component.css']
})
export class CadastroDeleteComponent implements OnInit {

  cadastro = {} as Cadastro;

  constructor(private cadastroService : CadastroService,
              private router: Router,
              private route : ActivatedRoute,
              private statusService: StatusService) { }

  ngOnInit(): void {
    const id = +this.route.snapshot.paramMap.get('id')!;
    this.cadastroService.readById(id).subscribe((cadastro) => {
      this.cadastro = cadastro;
    })
  }

  deleteCadastro(): void{
    this.cadastroService.deleteCadastro(this.cadastro).subscribe(() => {
      this.cadastroService.showMessage('Cadastro deletado');
      this.router.navigateByUrl('/cadastroStart');
      this.statusService.changeStatus({ email: '', username: '', active: false })
    })
  }

  cancelarCadastro(): void{
    this.router.navigateByUrl('/cadastroStart');
  }

}
```

cadastro-read.component.ts (ver dados cadastrados).

```
import { Component, OnInit } from '@angular/core';
import { Cadastro } from '../cadastro.model';
import { CadastroService } from '../cadastro.service';
import { StatusService } from 'src/app/services/status.service';


@Component({
  selector: 'app-cadastro-read',
  templateUrl: './cadastro-read.component.html',
  styleUrls: ['./cadastro-read.component.css']
})
export class CadastroReadComponent implements OnInit {

  cadastros : Cadastro[]= []
  displayedColumns = ["id", "cpf", "nome", "endereco", "email", "cel", "action"];
  activeEmail: string = '';

  constructor(private cadastroService: CadastroService, private statusService: StatusService) {
  }

  ngOnInit(): void {

   this.statusService.currentStatus.subscribe(status => {
       this.activeEmail = status.email
   })

    this.cadastroService.read().subscribe(cadastros => {
       this.cadastros = (cadastros.filter(item => item.email == this.activeEmail));
    })
  }
}
```

cadastro-start.component.ts (componente auxiliar para exibir formulário de cadastro ou dados cadastrados, dependendo se o usuário está logado no sistema ou não).

```
import { StatusService } from 'src/app/services/status.service';
import { Component, OnInit } from '@angular/core';


@Component({
  selector: 'app-cadastro-start',
  templateUrl: './cadastro-start.component.html',
  styleUrls: ['./cadastro-start.component.css']
})
export class CadastroStartComponent implements OnInit {

  active: boolean = false;

  constructor(private statusService: StatusService) {
  }

  ngOnInit(): void {
    this.statusService.currentStatus.subscribe(status => {
     this.active = status.active;
    })
  }

}
```

status.service.ts (serviço auxiliar para monitorar se usuário está logado e notificar componentes interessados fornecendo-lhes os dados pertinentes).

```
import { Injectable } from '@angular/core';
import { LoginStatus } from 'global';
import { BehaviorSubject } from 'rxjs';

@Injectable({
  providedIn: 'root'
})
export class StatusService {

  private subject  = new BehaviorSubject<LoginStatus>({ email: '', username: '', active: false });

  currentStatus = this.subject.asObservable();

  constructor() { }

   changeStatus(status: LoginStatus){
      this.subject.next(status);
   }
}
```

Criação de classe global para verificação do status do usuário (ativo ou não).

global.ts

```
export class LoginStatus {

  public email: string = '';
  public active: boolean = false;
  public username : string = '';

  constructor(email: string, username: string, active: boolean){
     this.email = email,
     this.username = username;
     this.active = active;
  }

}
```

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Rotas para chamar os componentes de acordo com o endereço URL.

```
import { NotFoundComponent } from './views/not-found/not-found.component';
import { CadastroStartComponent } from './componentes/cadastro/cadastro-start/cadastro-start.component';
import { NgModule } from '@angular/core';
import { RouterModule, Routes } from '@angular/router';
import { CadastroCreateComponent } from './componentes/cadastro/cadastro-create/cadastro-create.component';
import { CadastroDeleteComponent } from './componentes/cadastro/cadastro-delete/cadastro-delete.component';
import { CadastroReadComponent } from './componentes/cadastro/cadastro-read/cadastro-read.component';
import { CadastroUpdateComponent } from './componentes/cadastro/cadastro-update/cadastro-update.component';
import { CarrinhoComponent } from './views/carrinho/carrinho.component';
import { CategoriasComponent } from './views/categorias/categorias.component';
import { FaleconoscoComponent } from './views/faleconosco/faleconosco.component';
import { HomeComponent } from './views/home/home.component';
import { LoginComponent } from './views/login/login.component';
import { PedidosComponent } from './views/pedidos/pedidos.component';
import { ProdutosComponent } from './views/produtos/produtos.component';

const routes: Routes = [
  { path: "" , component: HomeComponent},
  { path: "login" , component: LoginComponent },
  { path: "carrinho" , component: CarrinhoComponent },
  { path: "pedidos", component: PedidosComponent },
  { path: "categorias", component: CategoriasComponent },
  { path: "produtos", component: ProdutosComponent },
  { path: "faleconosco", component: FaleconoscoComponent },
  { path: "cadastroStart", component: CadastroStartComponent },
  { path: "cadastro", component: CadastroCreateComponent },
  { path: "cadastroRead", component: CadastroReadComponent },
  { path: "cadastro/update/:id", component: CadastroUpdateComponent },
  { path: "cadastro/delete/:id", component: CadastroDeleteComponent },
  { path: "404", component: NotFoundComponent },
  { path: "**", redirectTo: "404" }
];

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