

Ecomentor

Eficiencia que ahorra,
valor que crece.

Tabla de contenidos

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Quiénes Somos y Análisis

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02

Funcionalidades y UML

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Ecomentor

ECOMENTOR es una app que impulsa la eficiencia energética en edificios de Cataluña mediante la visualización y comparación de certificados energéticos.

...

El Problema

- Obtener y entender un certificado energético es complicado.
- Comparar edificios y saber si vale la pena hacer mejoras es difícil.



Competencia

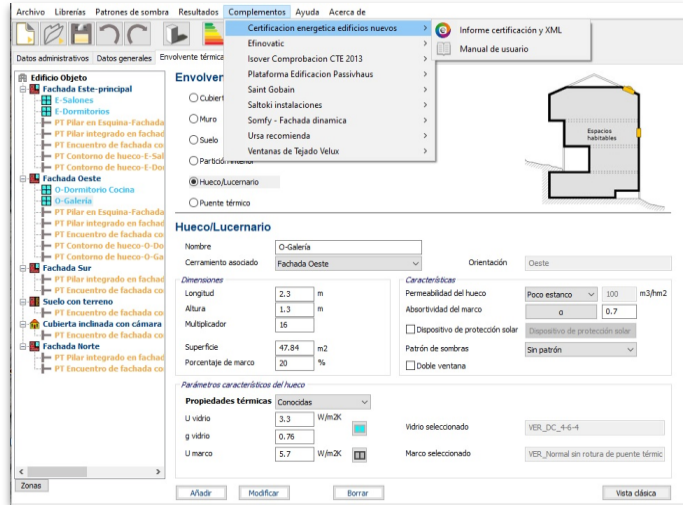


JouleBug

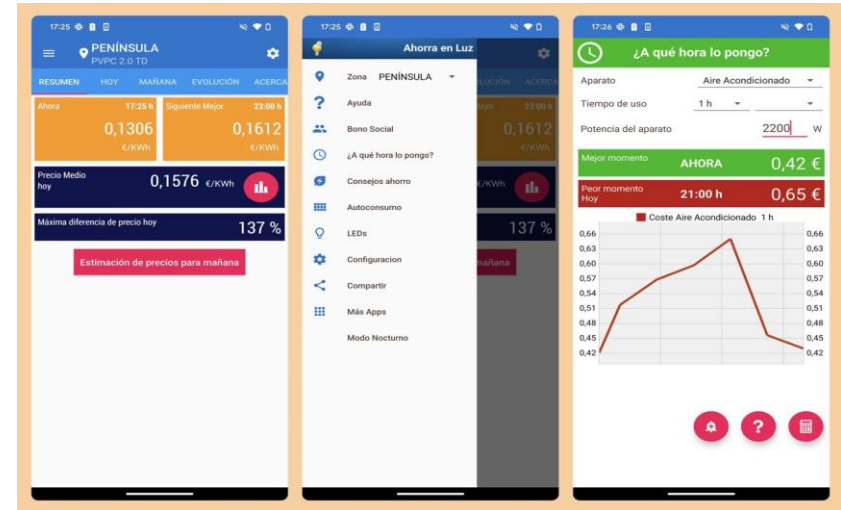


Geoportal España

Competencia



CE3X



Ahorra en luz



Nuestra solución

01

Recomendaciones

Ofrecemos recomendaciones personalizadas

02

Chat

Chatbot al cual poderle hacer preguntas sobre el certificado

03

Mapa interactivo

Mapa donde poder comparar y ver certificados energéticos de otros usuarios

04

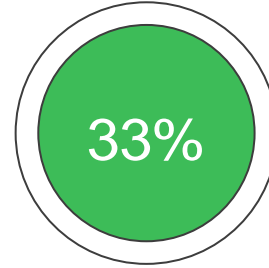
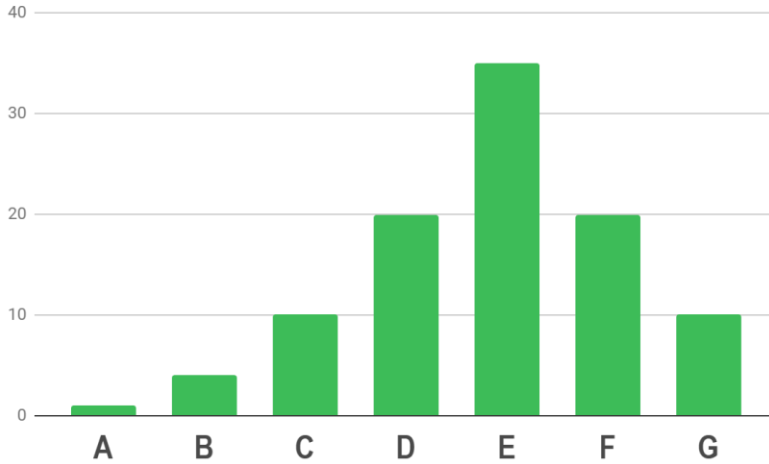
Calculadora

Generación de certificados no oficiales con un simple cuestionario

Competidores

	Comparar	Crear Certificados	Recomendaciones	Trofeos
Ecomentor	✓	✓	✓	✓
JouleBug	✗	✗	✓	✓
AhorraLuz	✗	✗	✓	✗
G.España	✓	✗	✗	✗
CE3X	✗	✓	✗	✗

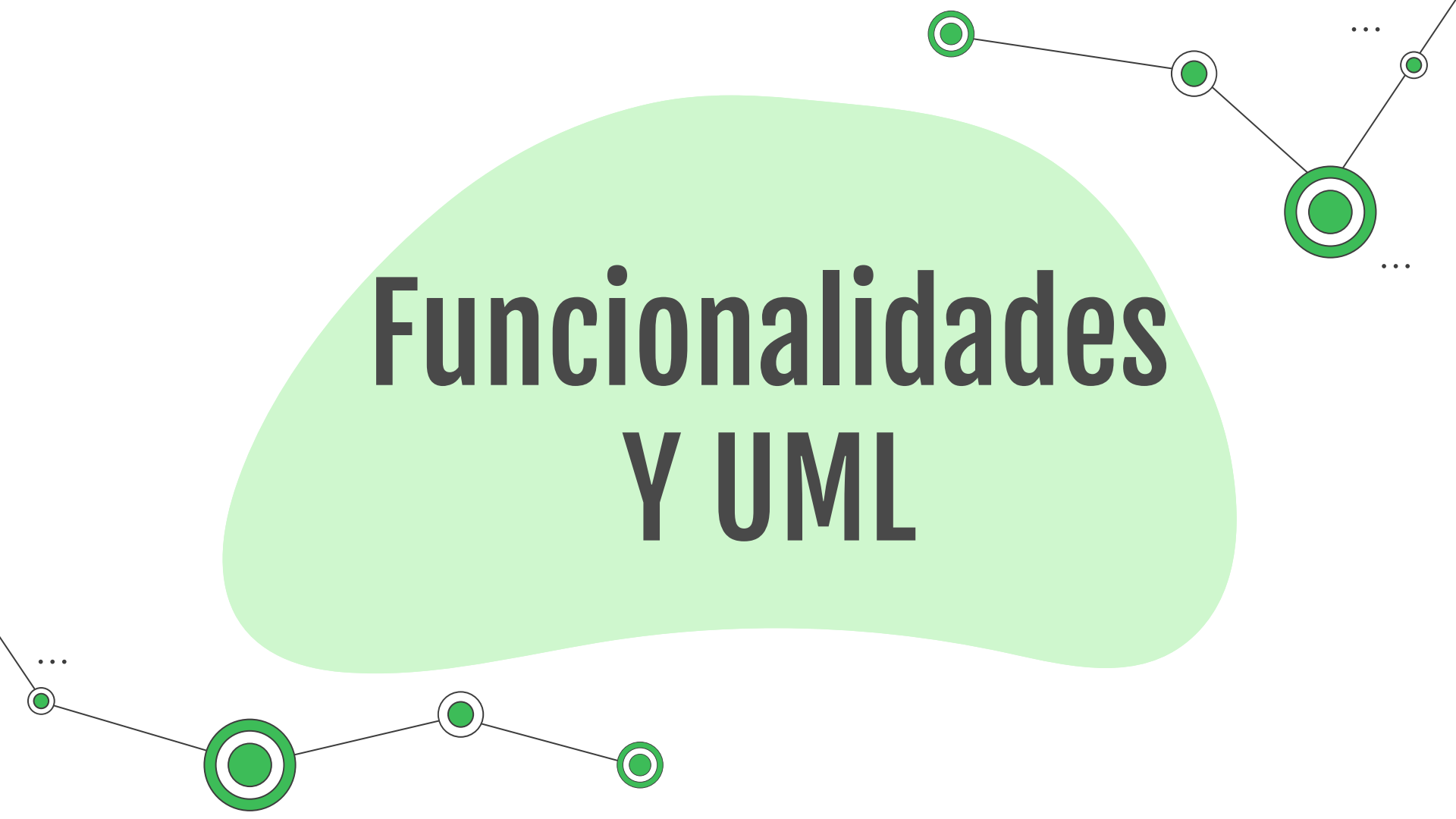
Mercado



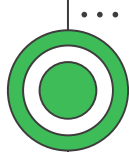
Incremento Esperado



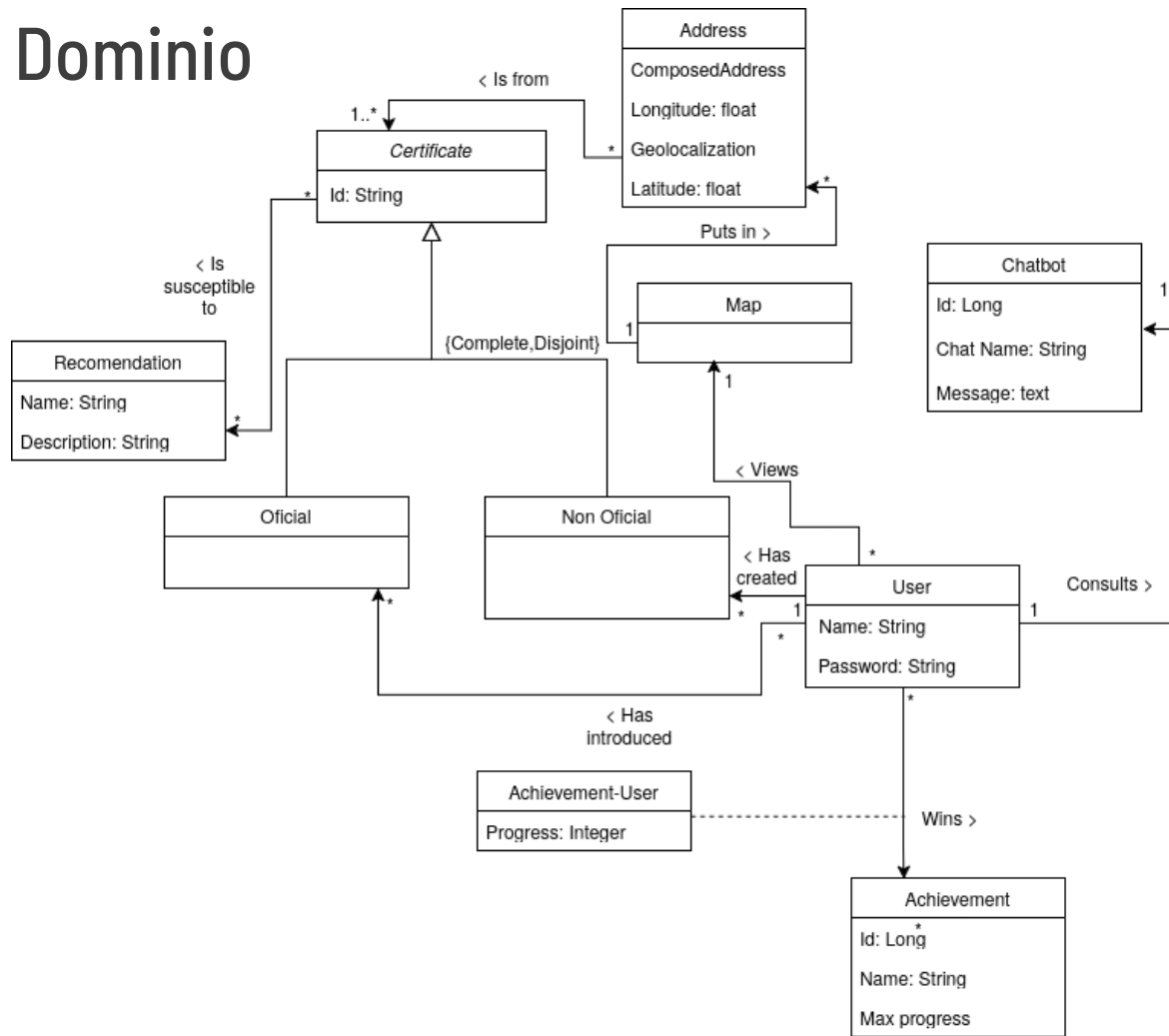
Dinero Movilizado en el sector

A decorative network diagram with green nodes and lines. The nodes are represented by concentric circles, with some having a solid green center and others being hollow. They are connected by thin grey lines, forming a network that frames the central text. Ellipses (...) are used to indicate that the network continues beyond the visible nodes.

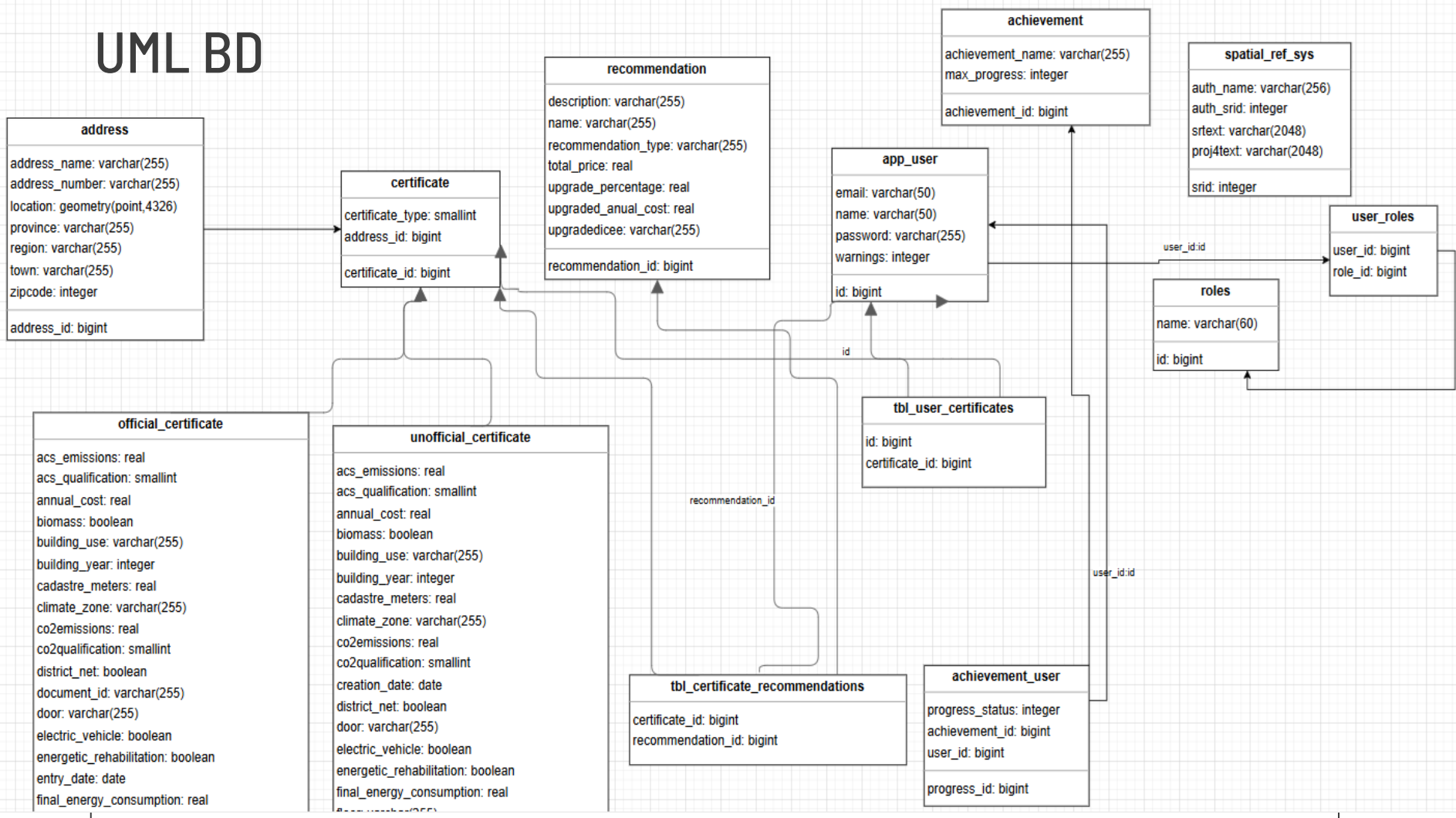
Funcionalidades Y UML



UML Dominio



UML BD



NFRs



Test Coverage

Asegurar un test Coverage del 80%



Seguridad

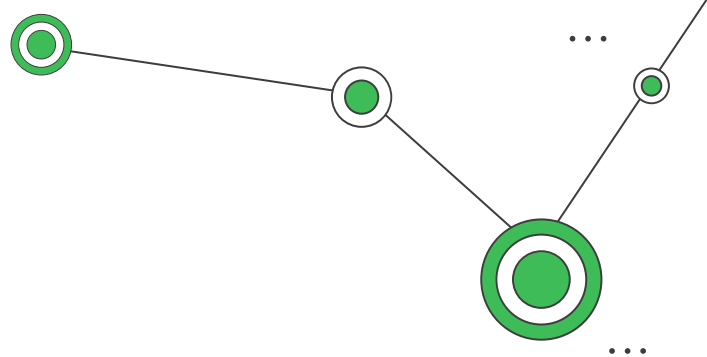
Control de acceso con roles, autenticación con tokens de JWT



Mantenibilidad

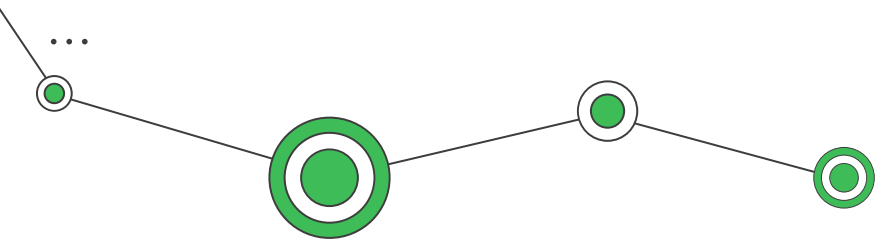
El código debe pasar el linter y los endpoints documentados en Swagger

Test Coverage

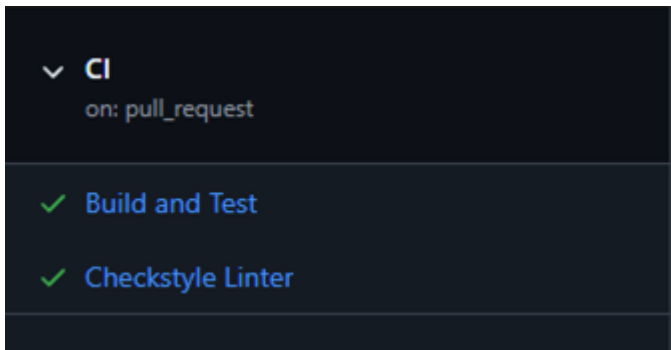
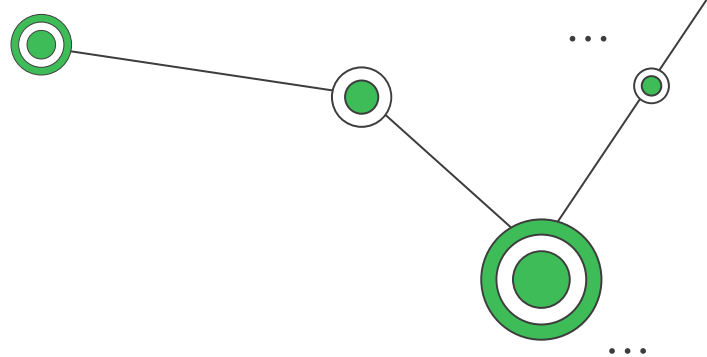


Coverage All Tests Coverage ×	
⌕ ⬆ ⬇ ⬇ ⬇	
Element ^	Statistics, %
✓ ▢ EcoMentor-frontend	31 files, 85% lines covered
✓ ▢ app	29 files, 85% lines covered
> ▢ Components	25 files, 86% lines covered
> ▢ Constants	3 files, 57% lines covered
✓ ▢ context	1 files, 100% lines covered
ts LocationFilterContext.ts	100% lines covered

Coverage All in EcoMentor (2) ×	
⌕ ⬆ ⬇ ⬇ ⬇	
Element ^	Class, %
> ▢ com.EcoMentor_backend.EcoMentor	92% (121/131)



Mantenibilidad



Servers

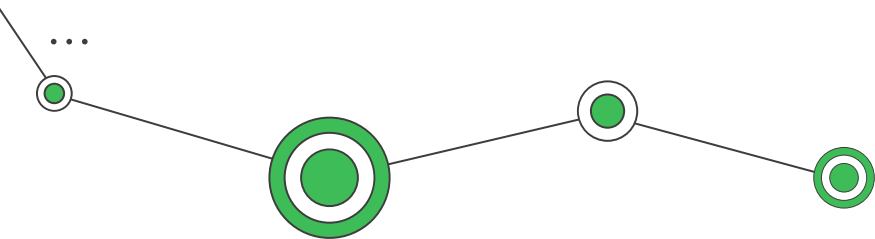
<http://localhost:8080> - Generated server url [Authorize](#)

Best building certifications by area Endpoints to query addresses ^

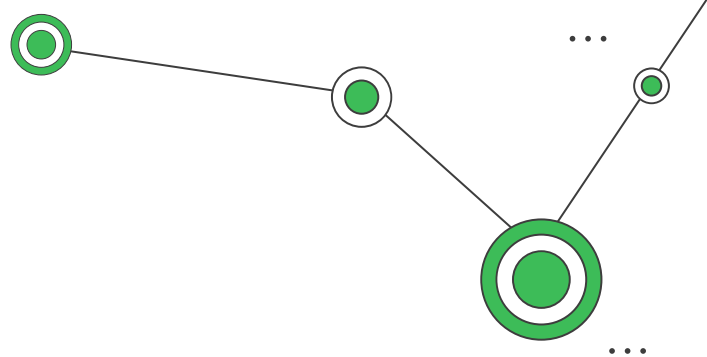
GET	/api/address/bestQualification	Get addresses with the best qualification	🔒	▼
-----	--------------------------------	---	---	---

user-get-controller ^

GET	/api/users/{id}		🔒	▼
GET	/api/users/me		🔒	▼



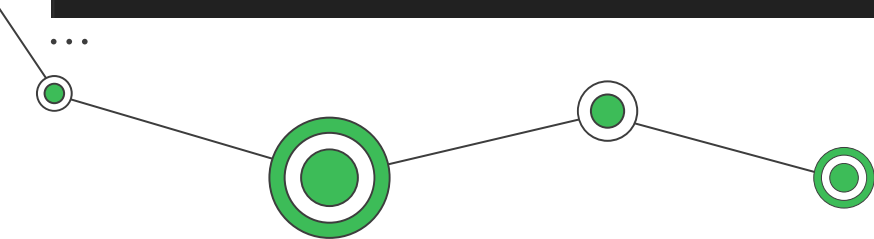
Seguridad



Body Cookies Headers (14) Test Results 200 OK


{ } JSON Preview Visualize

```
1 {
2   "token": "eyJhbGciOiJIUzI1NiJ9.eyJzdWIiOiIwNC5kaWV6LnZAZ21haWwY29tIiwiaWF0IjoxNzQ4NDI2MjIyLCJleHAiOjE3NDg0Mjc2NjJ9.pVjNgN-M0LSLNLTfMThGc7c
3   "roles": [
4     "ROLE_USER"
5   ]
6 }
```

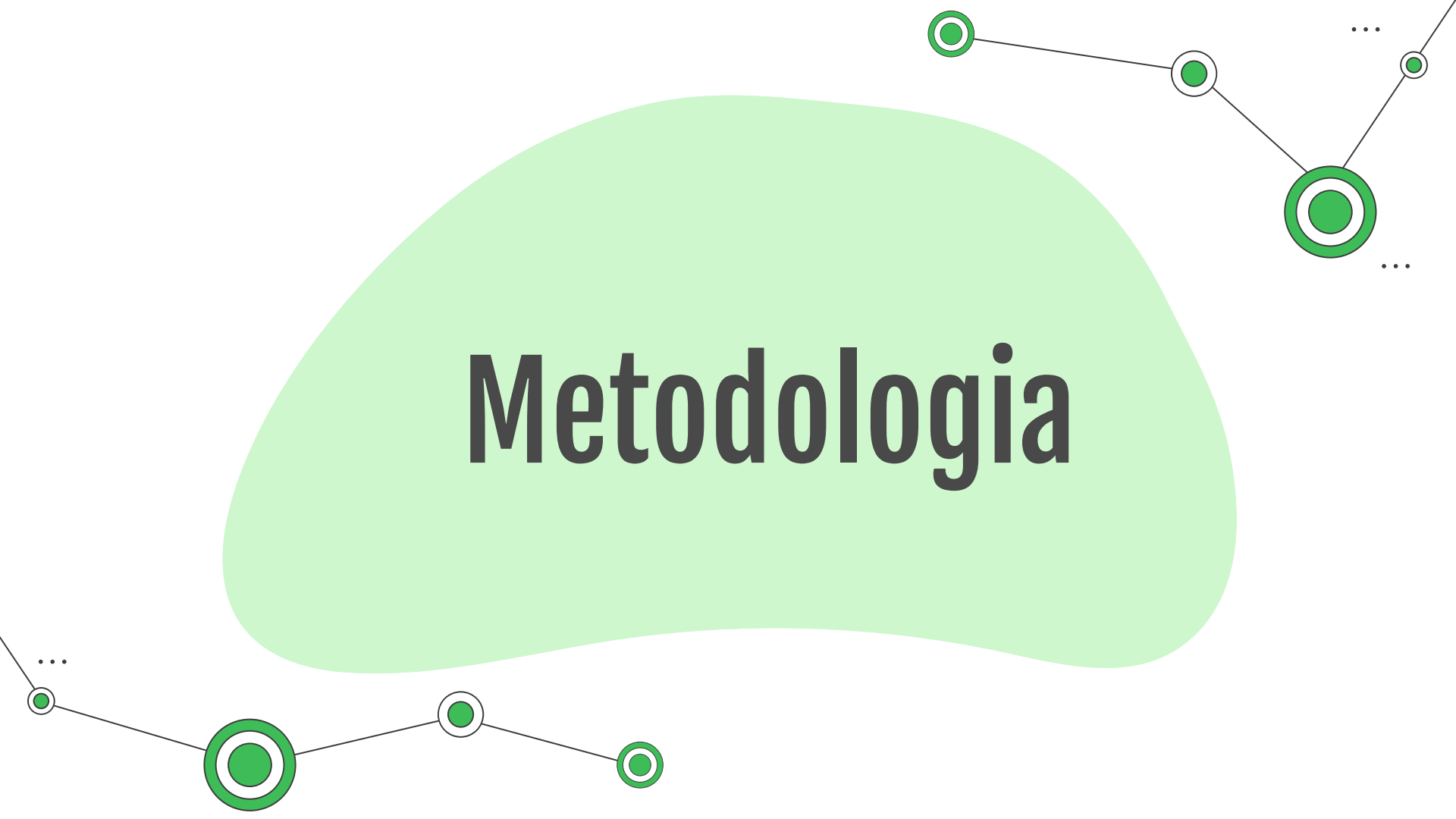


Seguridad

```
return http
    .csrf(AbstractHttpConfigurer::disable)
    .cors(Customizer.withDefaults())
    .authorizeHttpRequests(auth -> auth
        .requestMatchers(
            "/auth/**",
            "/swagger-ui/**",
            "/swagger-ui.html",
            "/v3/api-docs/**",
            "/v3/api-docs.yaml",
            "/v3/api-docs.json"
        )
        .permitAll().anyRequest().authenticated()
    )
    .sessionManagement(sessionManager ->
        sessionManager.sessionCreationPolicy(SessionCreationPolicy.STATELESS))
    .exceptionHandling(ex -> ex
        .authenticationEntryPoint((request, response, authException) -> {
            response.setStatus(HttpStatus.UNAUTHORIZED);
            response.getWriter().write("Unauthorized: " + authException.getMessage());
        })
    )
    .authenticationProvider(authProvider)
    .addFilterBefore(jwtAuthenticationFilter, UsernamePasswordAuthenticationFilter.class)
    .build();
}
```

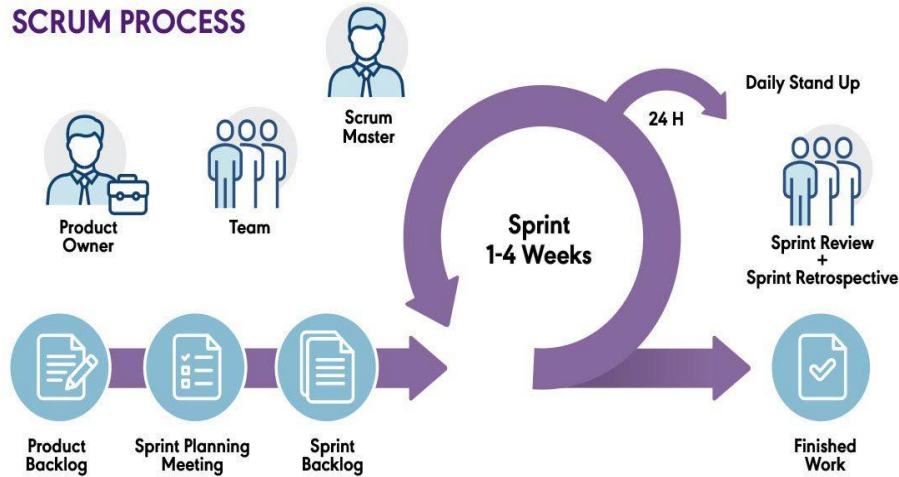


Metodologia



Scrum

SCRUM PROCESS



- **Inception 1** 10/2 - 19/2
- **Inception 2** 20/2 - 28/2
- **Sprint 1** 3/3 - 28/3
- **Sprint 2** 31/3 - 2/5
- **Sprint 3** 5/5 - 30/5

Total: 111 dias

Comunicación

videos

linter-backend

como-conseguir-token

swager

bd

recomendaciones

paginación-de-los-get-all

ia-y-mongo

problema-cada-vez-que-inicias-docker

docker

nueva-variable-de-entorno

deployment-back

deployment-front


logros

api-terceros

entrega-final

Canales de voz ▾

🔊 Ecomentor



Anec Professional

26/03/2025 21:42

POST: <http://localhost:8080/api/certificate>

Body:

```
{
  "certificateType": "OFFICIAL",
  "createAddressDTO": {
    "addressName": "{{ADREÇA}}",
    "addressNumber": "{{NUMERO}}"
  }
}
```

Expandir ↗

message.txt 3 KB

📄



Anec Professional

26/03/2025 21:50

- Abrir un runner en Postman
- Logearse y obtener token
- Cambiar el token de la llamada
- Arrastrar colección donde tengas la llamada
- Seleccionar solo la llamada de subir
- Subir el archivo de la BD
- Run 🏃

(editado)



victor

30/04/2025 23:26

acordaros de darle a guardar despues de poner el token

Taiga



#349 Securitizar endpoints chatbot

TASK

This task belongs to [#329 Augmentar seguretat aplicació](#) ●

TASKBOARD

Add tag +

Created by [Rubén Palà Vacas](#)

06 May 2025 18:36



S'han actualitzat tots els endpoints relacionats amb el mòdul de **xat** per tal d'**eliminar la dependència directa del `**userId**`** com a paràmetre d'entrada. Ara, el `userId` s'obté automàticament a partir del **token JWT** enviat a la capçalera de la petició (Authorization: Bearer).

Aquesta millora permet augmentar la seguretat i simplificar el contracte dels endpoints.

`feat/#349-SecureChatbotEndpoints`.

Custom Fields



Estimated Effort

1

Estimated number of hours for completing the task

Actual Effort

1

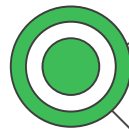
Actual number of hours invested in completing the task

3 Attachments



Screenshot from 2025-05-19 18-06-15.png endpoint

31.7 KB



#349 Securitzar endpoints chatbot

TASK

This task belongs to [#329 Augmentar seguretat aplicació](#) ●

TASKBOARD

Add tag +

Created by [Rubén Palà Vacas](#)

06 May 2025 18:36



S'han actualitzat tots els endpoints relacionats amb el mòdul de **xat** per tal d'**eliminar la dependència directa del `**userId**`** com a paràmetre d'entrada. Ara, el `userId` s'obté automàticament a partir del **token JWT** enviat a la capçalera de la petició (Authorization: Bearer).

Aquesta millora permet augmentar la seguretat i simplificar el contracte dels endpoints.

feat/#349-SecureChatbotEndpoints.

Custom Fields



Estimated Effort

1

Estimated number of hours for completing the task

Actual Effort

1

Actual number of hours invested in completing the task

3 Attachments



Screenshot from 2025-05-19 18-06-15.png endpoint

31.7 KB

Taiga



#349 Securitzar endpoints chatbot

TASK

This task belongs to [#329 Augmentar seguretat aplicació](#)

TASKBOARD

Add tag+

Created by [Rubén Palà Vacas](#)

06 May 2025 18:36



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`feat/#349-SecureChatbotEndpoints`.

Custom Fields



Estimated Effort

1

Estimated number of hours for completing the task

Actual Effort

1

Actual number of hours invested in completing the task

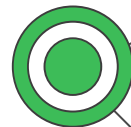
3 Attachments



Screenshot from 2025-05-19 18-06-15.png endpoint

31.7 KB

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Custom Fields



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1

Actual number of hours invested in completing the task

3 Attachments



Screenshot from 2025-05-19 18-06-15.png endpoint

31.7 KB

Bugs

Issues

Filters

subject or reference 

 Tags

TYPE 

SEVERITY 

PRIORITY 

ISSUE 



#370 Imports directly to module source code



#369 Fix chatbot endpoints



#368 users/me Error



#366 Add type to Achievement



#365 Tests Achivement



#363 Fix comparing with self

Repositorios de GitHub

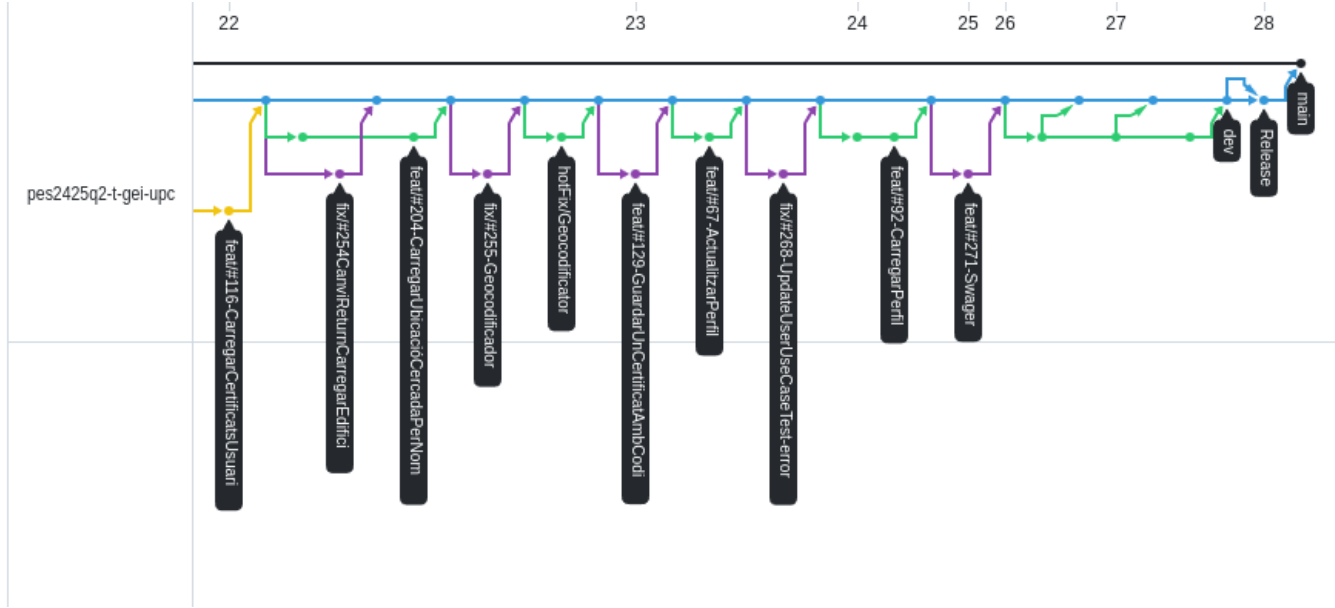
EcoMentor-frontend

EcoMentor-backend

EcoMentor-webadmin



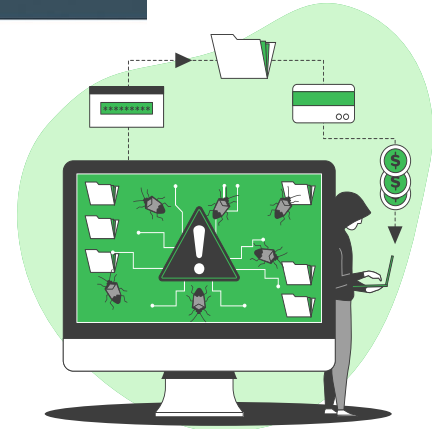
Git Flow

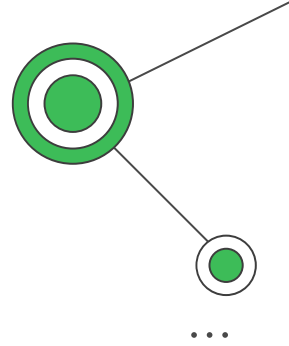
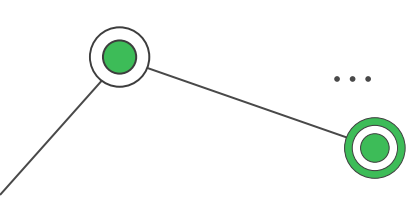


CI



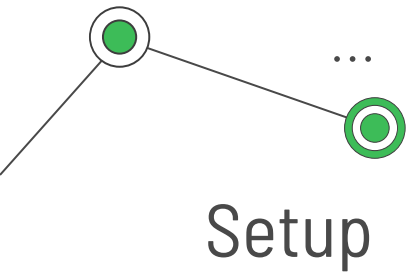
CONTINUOUS INTEGRATION



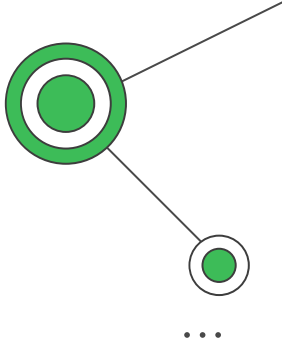


CD





CD



```
- name: Checkout code
  uses: actions/checkout@v3

- name: Set up JDK 21
  uses: actions/setup-java@v3
  with:
    java-version: '21'
    distribution: 'temurin'
```

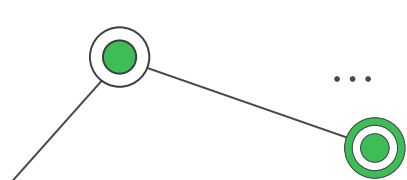
CD

Setup



Docker Image

```
- name: Build Docker image
  run: |
    docker build -t ecomentorapp:latest .
    docker save -o ecomentorapp.tar ecomentorapp:latest
```



Setup

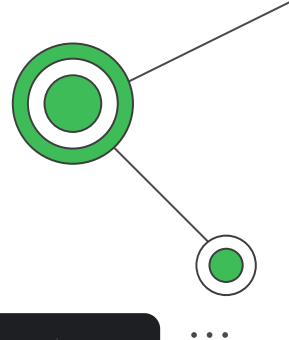


Docker Image



Subir EC2

CD



```
- name: Set up SSH key
run: |
  mkdir -p ~/.ssh
  printf "%s\n" "${{ secrets.SSH_PRIVATE_KEY }}" > ~/.ssh/id_rsa
  chmod 600 ~/.ssh/id_rsa
  ssh-keyscan -H ${{ secrets.EC2_HOST }} >> ~/.ssh/known_hosts

- name: Transfer Docker image to EC2
run: |
  scp -o StrictHostKeyChecking=no ecomentorapp.tar ${{ secrets.EC2_USERNAME }}@${{ secrets.EC2_HOST }}:~/ecomentorapp.tar
```


CD

Setup



Docker Image



Subir EC2



Deploy última
versión

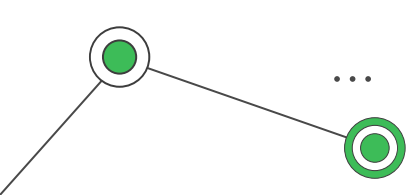
```
- name: Deploy on EC2
run: |
  ssh -o StrictHostKeyChecking=no ${ secrets.EC2_USERNAME }@${ secrets.EC2_HOST } <<EOF
  # Load the Docker image
  docker load -i ~/ecomentorapp.tar
  rm ~/ecomentorapp.tar

  # Create deployment directory if it doesn't exist
  mkdir -p ~/deployment
  cd ~/deployment

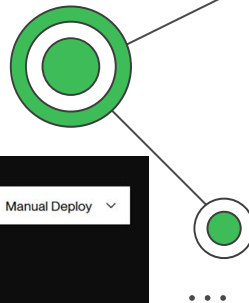
  # Create or update docker-compose.yml
  [...]
EOF

  # Stop and start containers
  docker-compose down || true
  docker-compose up -d

  # Clean up old images
  docker image prune -f
EOF
```



CD



Render

WEB SERVICE

ecomentor-admin

Docker

Free

Upgrade your instance →

Connect ▾

Manual Deploy ▾

pes2425q2-t-gei-upc / EcoMentor-webadmin

main

https://ecomentor-admin.onrender.com

ⓘ Your free instance will spin down with inactivity, which can delay requests by 50 seconds or more.

Upgrade now

Filter 28 ▾

✓

Deploy live for `b0c1b8a`: Merge pull request #4 from pes2425q2-t-gei-upc/dev · Removal of recommendations tab.
May 27, 2025 at 10:32 PM

📄

Deploy started for `b0c1b8a`: Merge pull request #4 from pes2425q2-t-gei-upc/dev · Removal of recommendations tab.
New commit via Auto-Deploy
May 27, 2025 at 10:28 PM

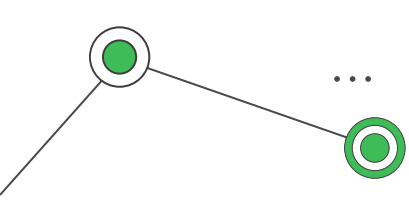
✓

Deploy live for `3eae0ac`: Merge pull request #3 from pes2425q2-t-gei-upc/hotfix hotfix
May 2, 2025 at 12:12 AM

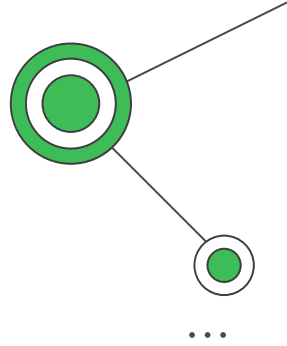
Rollback

📄

Deploy started for `3eae0ac`: Merge pull request #3 from pes2425q2-t-gei-upc/hotfix hotfix
New commit via Auto-Deploy
May 2, 2025 at 12:11 AM




Tests



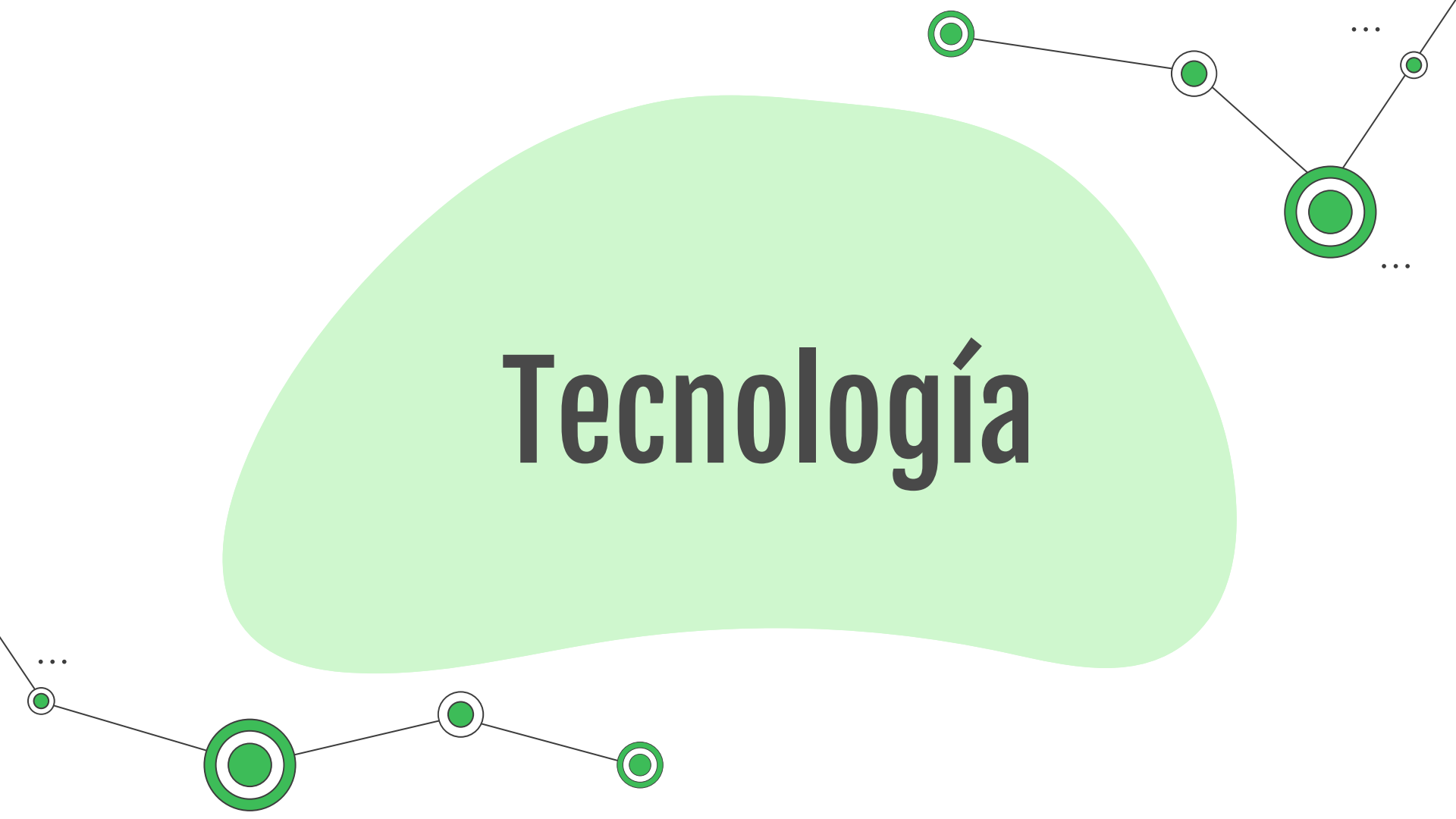
GitHub
Copilot

JUnit 

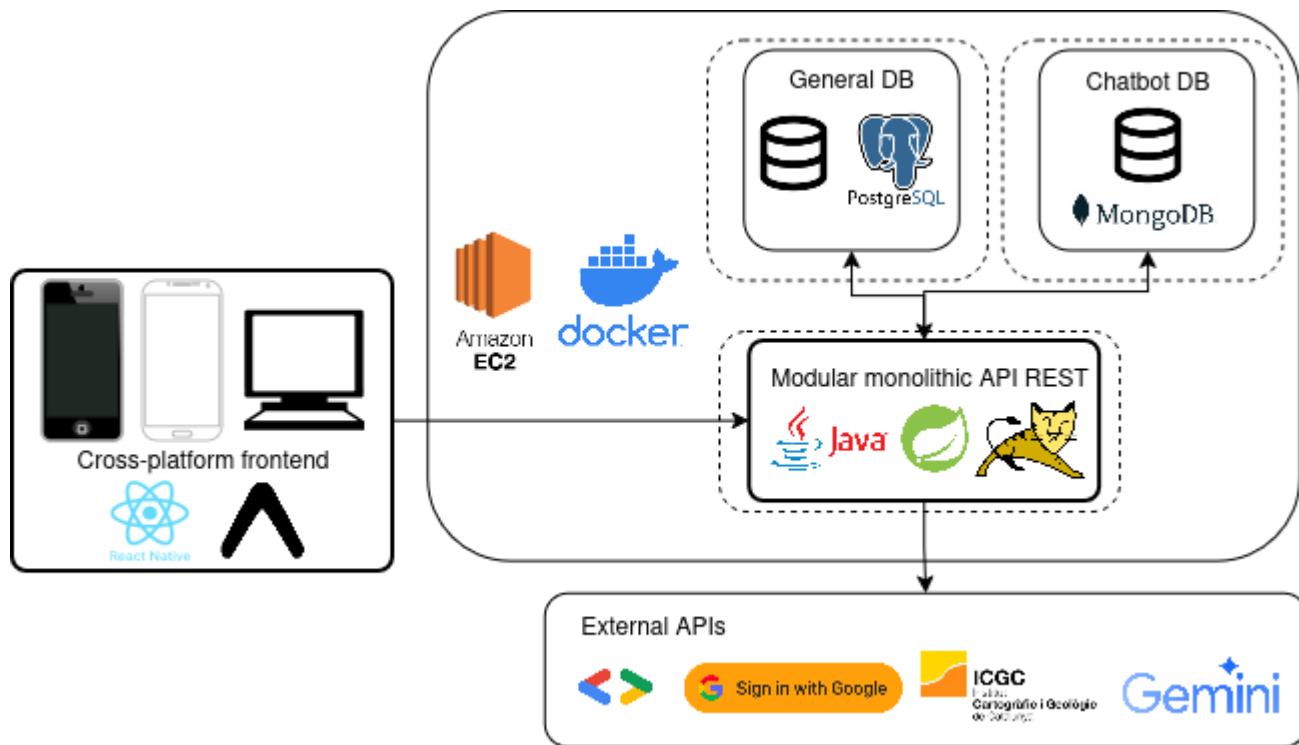




Tecnología



Arquitectura física

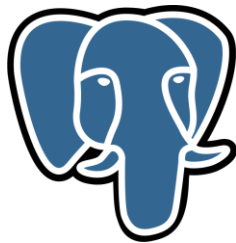


Tecnologías

FRONTEND



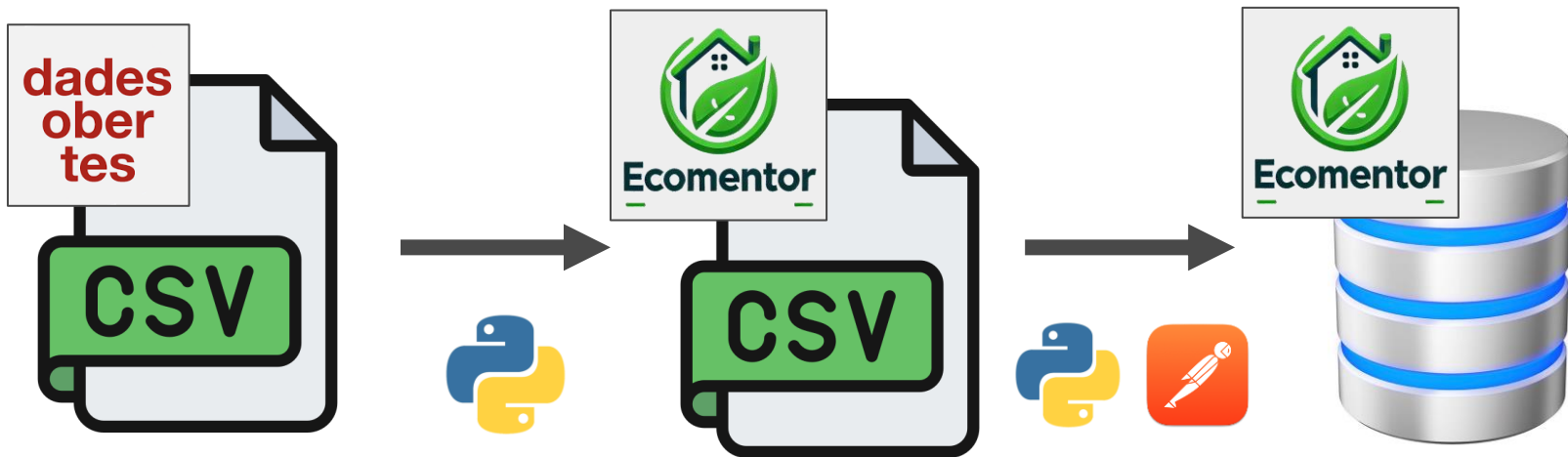
BACKEND



WEB-ADMIN



Procesamiento y uso de los datos



Procesamiento y uso de los datos

$$C_1 = \frac{(R \cdot I_o / \bar{I}_r) - 1}{2(R - 1)} + 0,6$$

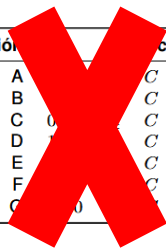
$$C_2 = \frac{(R' \cdot I_o / \bar{I}_s) - 1}{2(R' - 1)} + 0,5$$



MINISTERIO
DE INDUSTRIA, ENERGÍA
Y TURISMO



Calificación	...
A	...
B	...
C	...
D	...
E	...
F	...
G	...



A más eficiente

B

C

D

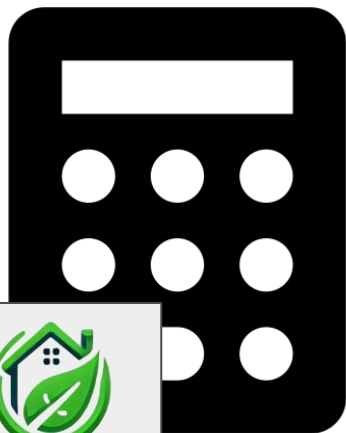
E

F

G menos eficiente



Procesamiento y uso de los datos



Calificación		Índice	
A		C	< 0,40
B	0,40	C	< 0,65
C	0,65	C	< 1,00
D	1,00	C	< 1,30
E	1,30	C	< 1,60
F	1,60	C	< 2,00
G	2,00	C	



Configuraciones



amazon EC2

Familia T2 de uso general

Instancia	CPU virtual*	Créditos por hora de CPU	Memoria (GiB)	Almacenamiento	Rendimiento de red
t2.nano	1	3	0,5	Solo EBS	Bajo
t2.micro	1	6	1	Solo EBS	De bajo a moderado
t2.small	1	12	2	Solo EBS	De bajo a moderado
t2.medium	2	24	4	Solo EBS	De bajo a moderado
t2.large	2	36	8	Solo EBS	De bajo a moderado
t2.xlarge	4	54	16	Solo EBS	Moderado
t2.2xlarge	8	81	32	Solo EBS	Moderado

Configuraciones

IP Elástica



amazon **EC2**

Direcciones IP elásticas (1) [información](#)

🔍 Buscar direcciones IP elásticas por atributo o etiqueta



Acciones ▾

Asignar dirección IP elástica

< 1 > ⚙

<input type="checkbox"/>	Name ▾	Dirección IPv4 asign... ▾	Tipo ▾	ID de asignación ▾	Registro DNS inverso ▾	ID de instancia asociada ▾	Dirección IP privada ▾
<input type="checkbox"/>	-	52.47.21					

Configuraciones



```
docker-compose.yml
```

```
#backend part
```

```
backend:
```

```
  build: .
```

```
  ports:
```

```
    - "8080:8080"
```

```
  depends_on:
```

- postgres
- mongo

```
  environment:
```

- GEMINI_API_KEY=\${GEMINI_API_KEY}
- SPRING_MAIL_PASSWORD=\${SPRING_MAIL_PASSWORD}
- GOOGLE_WEB_CLIENT_ID=\${GOOGLE_WEB_CLIENT_ID}
- DB_HOST=postgres
- MONGO_HOST=mongo

Configuraciones



docker-compose.yml

```
mongo:
  image: mongo:6.0
  ports:
    - "27017:27017"
  environment:
    MONGO_INITDB_DATABASE: EcoMentorChat
    MONGO_INITDB_ROOT_USERNAME: admin
    MONGO_INITDB_ROOT_PASSWORD: 1234
  volumes:
    - mongo-data:/data/db
```

docker-compose.yml

```
#DB part
postgres:
  image: postgis/postgis:15-3.3
  ports:
    - "5432:5432"
  environment:
    POSTGRES_DB: EcoMentorDB
    POSTGRES_USER: EcoMentor
    POSTGRES_PASSWORD: 1234
  volumes:
    - postgres-data:/var/lib/postgresql/data
```



MongoDB Compass - localhost:27017/EcoMentorChat.chats

Connections Edit View Collection Help

Compass

{ My Queries

CONNECTIONS (1)

Search connections

- localhost:27017
 - EcoMentorChat

chats

- admin
- config
- local

Welcome

chats



localhost:27017 > EcoMentorChat > chats

Documents 63

Aggregations

Schema

Indexes 1

Validation



Type a query: { field: 'value' } or [Generate query](#)

ADD DATA

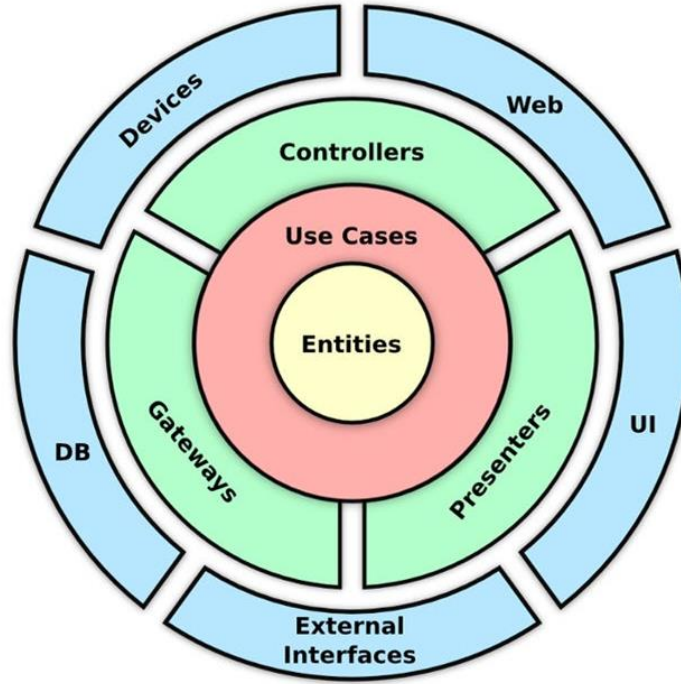
EXPORT DATA

UPDATE

DELETE

```
_id: ObjectId('681284f84015b150e6d25674')
userId: 4
chatName: "initialChat"
message: "From now on you have to talk to me as if you were an assistant called ..."
response: "Hello there! EcoMentor Chatbot here, ready to assist you with all your..."
isSuspicious: false
timestamp: 2025-04-30T22:15:50.805+00:00
_class: "com.EcoMentor_backend.EcoMentor.Chat.entity.Chat"
```

Estructura de código



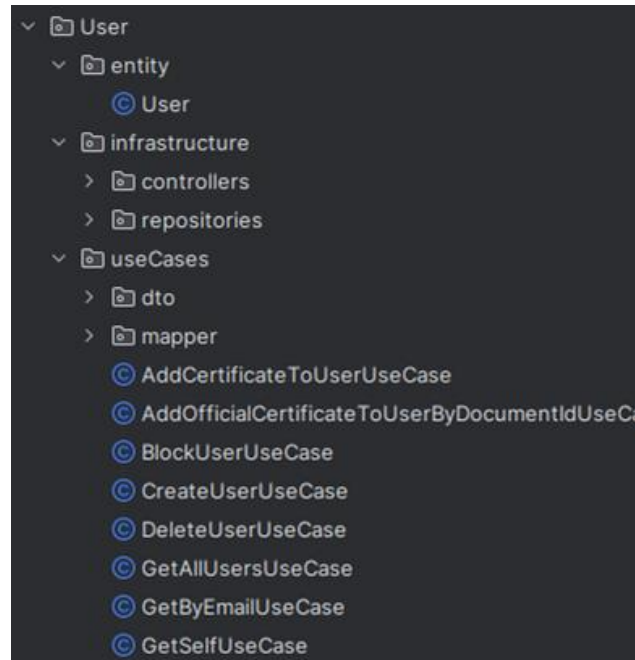
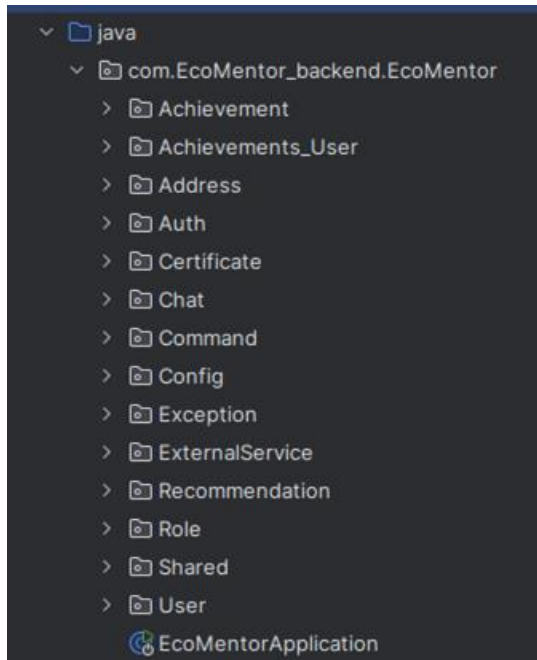
Backend

*Modular
monolithic*

*Clean code
architecture*

Estructura de código

Backend



Estructura de código

Frontend

```

  ▾ app
    > Components
    > Constants
    > CustomHooks
    > Global
    > Screens
    > Services
    > Utils
    ⚙ _layout.tsx
    ⚙ index.tsx
  > assets
  > context
  > langs

```

Webadmin

```

  ▾ src
    > certificates
    > components
    > roles
    > users
    ⚙ App.tsx
    ⚙ AuthProvider.tsx
    ⚙ DataProvider.tsx
    ⚙ index.tsx
    ⚙ Layout.tsx
    ⚙ theme.tsx

```

Integración APIs de terceros



Google Maps API

API Key

```
app.json
{
  "config": {
    "googleMaps": {
      "apiKey": ""
    }
  }
}
```



Integración APIs de terceros



Gemini

```
● ● ● application.properties  
  
# Gemini  
gemini.api-key=${GEMINI_API_KEY:fake-key}  
gemini.api-endpoint=https://generativelanguage.googleapis.com/v1beta
```



Integración APIs de terceros

```
GeminiService.java
public GeminiService(RestTemplate restTemplate, @victor.diez
    @Value("${GEMINI_API_KEY:fake-key}") String apiKey,
    @Value("https://generativelanguage.googleapis.com/v1beta") String endpoint) {
    this.restTemplate = restTemplate;
    this.apiKey        = apiKey;
    this.endpoint      = endpoint.endsWith("/")
        ? endpoint.substring(0, endpoint.length() - 1)
        : endpoint;
    this.model         = "gemini-2.0-flash";
}
```

Integración APIs de terceros



```
#Mail service
spring.mail.host=smtp.gmail.com
spring.mail.port=587
spring.mail.username=ecomentorCAT@gmail.com
spring.mail.password=${SPRING_MAIL_PASSWORD}
spring.mail.properties.mail.smtp.auth=true
spring.mail.properties.mail.smtp.starttls.enable=true
google.oauth.clientId=${GOOGLE_WEB_CLIENT_ID}
```

Integración APIs de terceros



```
<body>
<div class="email-container">
  <h1>Welcome to Ecomentor!</h1>
  <p>Thank you for signing up. We're excited to have you on board.</p>
  <p>If you have any questions, feel free to reply to this email.</p>
  <div class="footer">
    
    <span>© 2025 ECOMENTOR</span>
  </div>
</div>
</body>
</html>
```

Integración APIs de terceros



Welcome to Ecomentor!

Thank you for signing up. We're excited to have you on board.

If you have any questions, feel free to reply to this email.



© 2025 ECOMENTOR

Integración APIs de terceros

Google OAuth2



Register.tsx

```
const [ request, response, promptAsync] = Google.useAuthRequest({  
  androidClientId: 'clientId',  
});
```

AuthContext.tsx

```
const res :AxiosResponse<AuthResponse, any> = await axios.post<AuthResponse>(`${API_URL}/auth/google`, {  
  idToken  
});
```


Integración APIs de terceros

Google Oauth2



```
GoogleLoginUseCase.java
```

```
GoogleIdTokenVerifier verifier = verifierBuilder  
    .setAudience(Collections.singletonList(googleConfig.getClientId()))  
    .build();
```

...



Herramientas de soporte al desarrollo



...



SwaggerTM

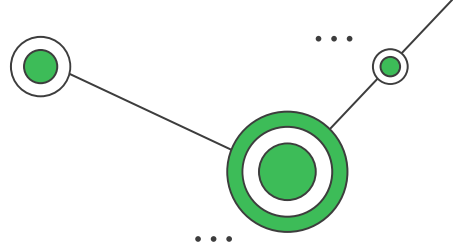


JETBRAINS



Demostración

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