

Evidências — Atividade 6 (Encapsulamento)

Ambiente

- SO: Windows 11
- .NET SDK: 9.0
- Editor: VS Code

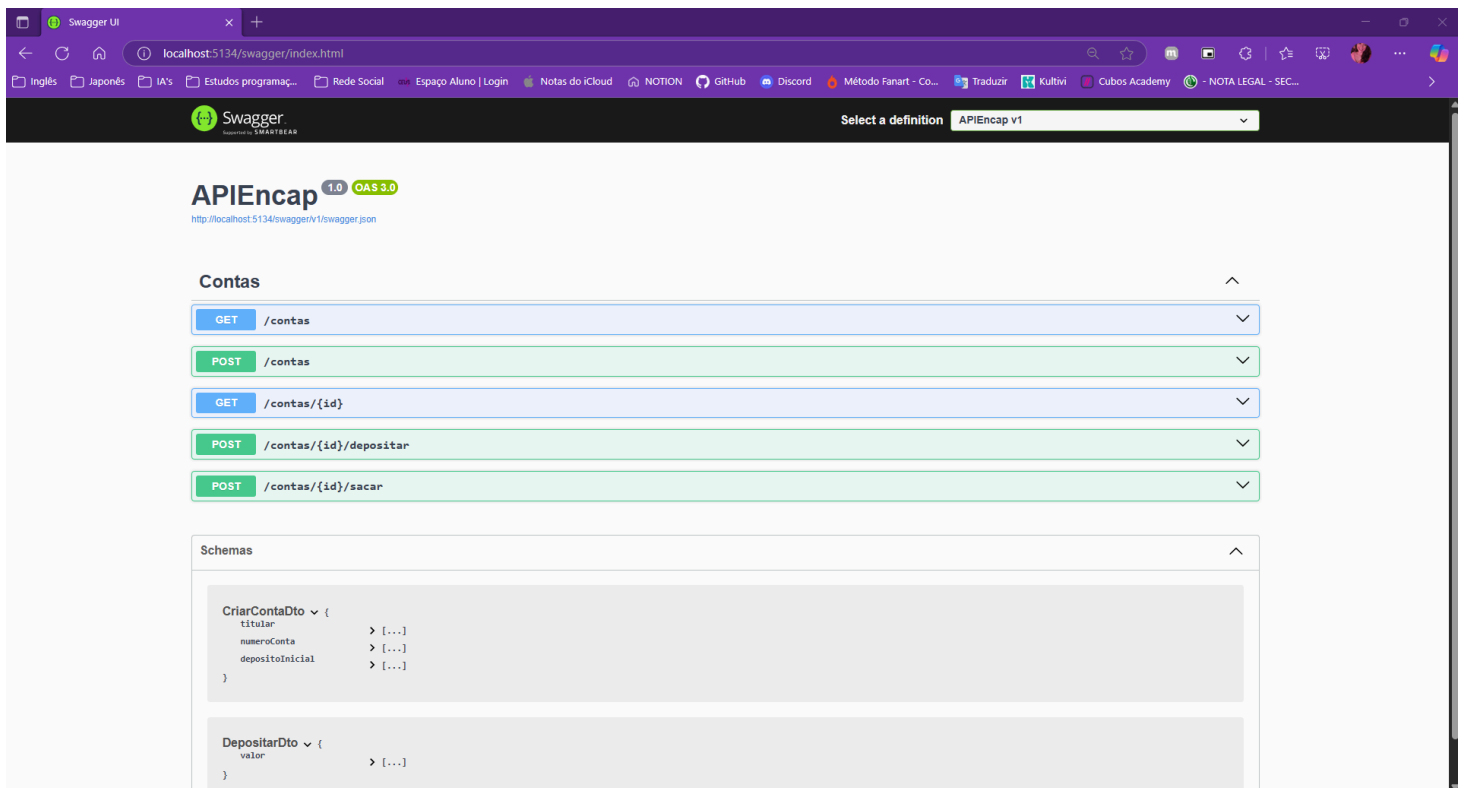
Execução

- `dotnet run` → URL: <http://localhost:5134>

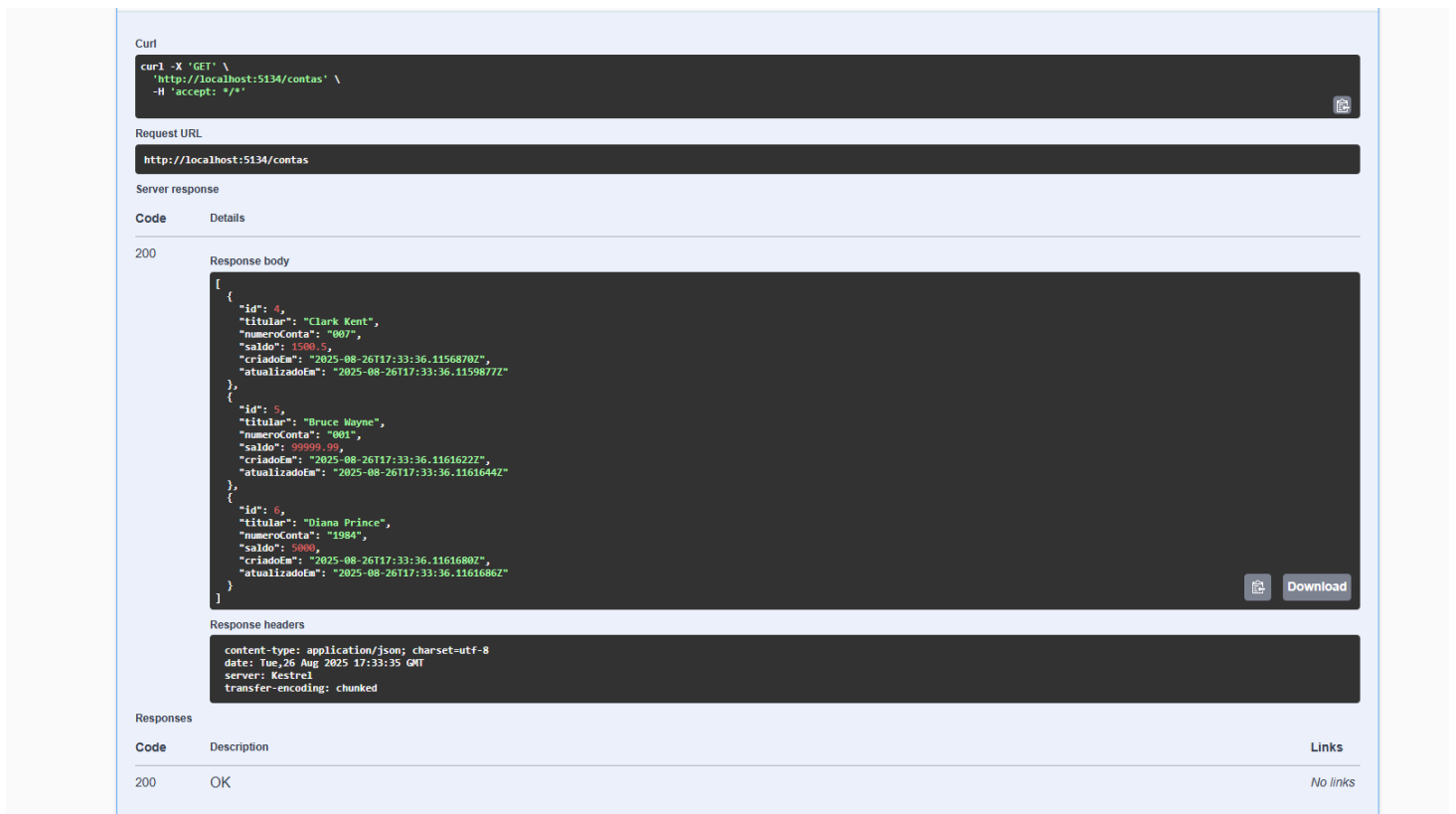
```
PS C:\Users\marii\OneDrive\Área de Trabalho\CC\Estudos_projetos_trabalhos\DS-CEUB\06_API_Encapsulamento_CSharp\APIEncap> dotnet run
Usando as configurações de inicialização de C:\Users\marii\OneDrive\Área de Trabalho\CC\Estudos_projetos_trabalhos\DS-CEUB\06_API_Encapsulamento_CSharp\APIEncap\Properties\launchSettings.json...
Compilando...
info: Microsoft.Hosting.Lifetime[14]
      Now listening on: http://localhost:5134
info: Microsoft.Hosting.Lifetime[0]
      Application started. Press Ctrl+C to shut down.
info: Microsoft.Hosting.Lifetime[0]
      Hosting environment: Development
info: Microsoft.Hosting.Lifetime[0]
      Content root path: C:\Users\marii\OneDrive\Área de Trabalho\CC\Estudos_projetos_trabalhos\DS-CEUB\06_API_Encapsulamento_CSharp\APIEncap
```

Swagger

- `swagger/index`



- GET /contas



- POST /contas — 201 — [PRINT]

Execute

Clear

Responses

Curl

```
curl -X 'POST' \
  'http://localhost:5134/contas' \
  -H 'accept: */*' \
  -H 'Content-Type: application/json' \
  -d '{
    "titular": "Mariana",
    "numeroConta": "523",
    "depositoInicial": 100.00
  }'
```

Request URL

http://localhost:5134/contas

Server response

Code

Details

201

undocumented

Response body

```
{
  "id": 7,
  "titular": "Mariana",
  "numeroConta": "523",
  "saldo": 100,
  "criadoEm": "2025-08-26T17:36:31.5792044Z",
  "atualizadoEm": "2025-08-26T17:36:31.5792119Z"
}
```

Download

Response headers

```
content-type: application/json; charset=utf-8
date: Tue, 26 Aug 2025 17:36:31 GMT
location: http://localhost:5134/contas/7
server: Kestrel
transfer-encoding: chunked
```

Responses

Code

Description

Links

200OK

No links

- GET /contas/{id} — 200

Name

Description

id * required

integer(\$int32)

(path)

5

Execute

Clear

Responses

Curl

```
curl -X 'GET' \
  'http://localhost:5134/contas/5' \
  -H 'accept: */*' \
```

Request URL

http://localhost:5134/contas/5

Server response

Code

Details

200

Response body

```
{
  "id": 5,
  "titular": "Bruce Wayne",
  "numeroConta": "001",
  "saldo": 99999.99,
  "criadoEm": "2025-08-26T17:33:36.1161622Z",
  "atualizadoEm": "2025-08-26T17:33:36.1161644Z"
}
```

Download

Response headers

```
content-type: application/json; charset=utf-8
date: Tue, 26 Aug 2025 17:37:20 GMT
server: Kestrel
transfer-encoding: chunked
```

Responses

Code

Description

Links

200OK

No links

• GET /contas/{id} — 404

Responses

Curl

```
curl -X 'GET' \
'http://localhost:5134/contas/8' \
-H 'accept: */*'
```

Request URL

http://localhost:5134/contas/8

Server response

Code	Details
404	Error: Not Found

Undocumented

Response body

```
{
  "detail": "Conta não encontrada."
}
```

Download

Response headers

```
content-type: application/json; charset=utf-8
date: Tue, 26 Aug 2025 17:51:35 GMT
server: Kestrel
transfer-encoding: chunked
```

Responses

Code	Description	Links
200	OK	No links

• POST /contas/{id}/depositar — 200

POST

/contas/{id}/depositar

Parameters

Cancel

Reset

Name	Description
id * required	
integer(\$int32)	7
(path)	

Request body

application/json

Edit Value | Schema

```
{
  "valor": 2500.00
}
```

Execute

Responses

Code	Description	Links
200	OK	No links

Execute

Clear

Responses

Curl

```
curl -X 'POST' \
'http://localhost:5134/contas/7/depositar' \
-H 'accept: */*' \
-H 'Content-Type: application/json' \
-d '{
  "valor": 2500.00
}'
```

Request URL

http://localhost:5134/contas/7/depositar

Server response

Code	Details
200	<div><div>Response body</div><div><pre>{ "id": 7, "titular": "Mariana", "numeroConta": "523", "saldo": 2600, "criadoEm": "2025-08-26T17:36:31.5792044Z", "atualizadoEm": "2025-08-26T17:39:37.9122186Z" }</pre></div><div>Download</div></div> <div><div>Response headers</div><div><pre>content-type: application/json; charset=utf-8 date: Tue, 26 Aug 2025 17:39:36 GMT server: Kestrel transfer-encoding: chunked</pre></div></div>

Responses

Code	Description	Links
200	OK	No links

- POST /contas/{id}/sacar — 200 — [PRINT]

POST /contas/{id}/sacar

CancelReset

Parameters

Name	Description
id * required	
integer(\$int32)	7
(path)	

Request body

application/json

Edit Value | Schema

```
{
  "valor": 650.00
}
```

Execute

Responses

Code	Description	Links
200	OK	No links

Responses

Curl

```
curl -X 'POST' \
  'http://localhost:5134/contas/7/sacar' \
  -H 'accept: */*' \
  -H 'Content-Type: application/json' \
  -d '{
    "valor": 650.00
  }'
```

Request URL

http://localhost:5134/contas/7/sacar

Server response

Code	Details
200	<div><div>Response body</div><div><pre>{ "id": 7, "titular": "Mariana", "numeroConta": "523", "saldo": 1950, "criadoEm": "2025-08-26T17:36:31.5792044Z", "atualizadoEm": "2025-08-26T17:41:18.3097480Z" }</pre></div><div><div>Download</div></div></div> <div><div>Response headers</div><div><pre>content-type: application/json; charset=utf-8 date: Tue, 26 Aug 2025 17:41:17 GMT server: Kestrel transfer-encoding: chunked</pre></div></div>

Responses

Code	Description	Links
200	OK	No links

- POST /contas/{id}/sacar — 400 — **Operação inválida: Saldo insuficiente.**

Responses

Curl

```
curl -X 'POST' \
  'http://localhost:5134/contas/7/sacar' \
  -H 'accept: */*' \
  -H 'Content-Type: application/json' \
  -d '{
    "valor": 3000.00
  }'
```

Request URL

http://localhost:5134/contas/7/sacar

Server response

Code	Details
400	<div><div>Error: Bad Request</div><div><div>Response body</div><div><pre>{ "type": "https://tools.ietf.org/html/rfc9110#section-15.5.1", "title": "Operação inválida", "status": 400, "detail": "Saldo insuficiente.", "traceId": "00-4ff73173a3f490ce3a738490b186a146-5470c7b29ca0b8ae-00" }</pre></div><div><div>Download</div></div></div><div><div>Response headers</div><div><pre>content-type: application/problem+json; charset=utf-8 date: Tue, 26 Aug 2025 17:57:24 GMT server: Kestrel transfer-encoding: chunked</pre></div></div></div>

Responses

Code	Description	Links
400	Undocumented	

VS Code REST Client

- Arquivo APIEncap.http
- Execução dos requests (criar, listar, buscar, depositar, sacar, erro)

```
APIEncap > APIEncap.http > ...
6 references | You, 46 minutes ago | 1 author (You)
1 @base = http://localhost:5134
2
3 ### 1) Criar conta
4 Send Request
5 POST {{base}}/contas
6 Content-Type: application/json
7
8 {
9     "titular": "Mari",
10    "numeroConta": "0001-9",
11    "depositoInicial": 100
12 }
13 You, 46 minutes ago • Uncommitted chan
14
15 ### 2) Listar contas
16 Send Request
17 GET {{base}}/contas
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```
APIEncap > APIEncap.http > ...
4 POST {{base}}/contas
10     "depositoInicial": 100
11 }
12
13 ### 2) Listar contas You, 47 minutes ago
14 Send Request
15 GET {{base}}/contas
16
17
18
19 ### 3) Buscar por Id
20 Send Request
21 GET {{base}}/contas/1
22
23
24
25
26 ### 4) Depositar
27 Send Request
28 POST {{base}}/contas/1/depositar
29 Content-Type: application/json
30
31 { "valor": 50 }
32
33
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36 ### 5) Sacar (ok)
37 Send Request
38 POST {{base}}/contas/1/sacar
39 Content-Type: application/json
40
41 { "valor": 30 }
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APIEncap > APIEncap.http > GET /contas/8
14 Send Request
15 GET {{base}}/contas
16 ### 3) Buscar por Id
17 Send Request
18 GET {{base}}/contas/8 You, 48 minutes ago
19 ### 4) Depositar
20 Send Request
21 POST {{base}}/contas/1/depositar
22 Content-Type: application/json
23 { "valor": 50 }
24
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26 ### 5) Sacar (ok)
27 Send Request
28 POST {{base}}/contas/1/sacar
29 Content-Type: application/json
30 { "valor": 30 }
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```
APIEncap > APIEncap.http > ...
26 POST {{base}}/contas/8/sacar
27 Content-Type: application/json
28
29 { "valor": 30 }
30
31 ### 6) Sacar (erro - saldo insuficiente)
Send Request
32 POST {{base}}/contas/8/sacar
33 Content-Type: application/json
34
35 { "valor": 150 }
36
```

```
1 HTTP/1.1 400 Bad Request
2 Connection: close
3 Content-Type: application/problem+json; charset=utf-8
4 Date: Tue, 26 Aug 2025 18:04:22 GMT
5 Server: Kestrel
6 Transfer-Encoding: chunked
7
8 {
9   "type": "https://tools.ietf.org/html/rfc9110#section-15.5.1",
10  "title": "Operação inválida",
11  "status": 400,
12  "detail": "Saldo insuficiente.",
13  "traceId": "00-c94345fdab73af6078eb83033670841f-0d71585ff98347a8-00"
14 }
```

Conclusão

- Encapsulamento evidenciado por: campos privados, propriedades read-only, métodos controladores de estado e exposição via DTO/View.