Using OAuth 2.0 to access the Common API

The Common API uses the OAuth 2.0 protocol for authentication and authorization. Currently for the Hackathon we only support one OAuth 2.0 scenario, the implicit grant flow.

OAuth 2.0 is a relatively simple protocol. Your client application requests an access token from the Common API Authorization Server, extracts the token from the response, and sends the token to the Common API that you want to access. This document gives you a step by step guide on how to do this.

The Common API is being implemented in three countries: Romania, Spain and The Netherlands. The API itself and the OAuth 2.0 implementations are the same across the countries, only the URLs to access them vary. Below you can find the details for each country.

Implicit grant flow

The implicit grant is a simplified authorization code flow as seen below
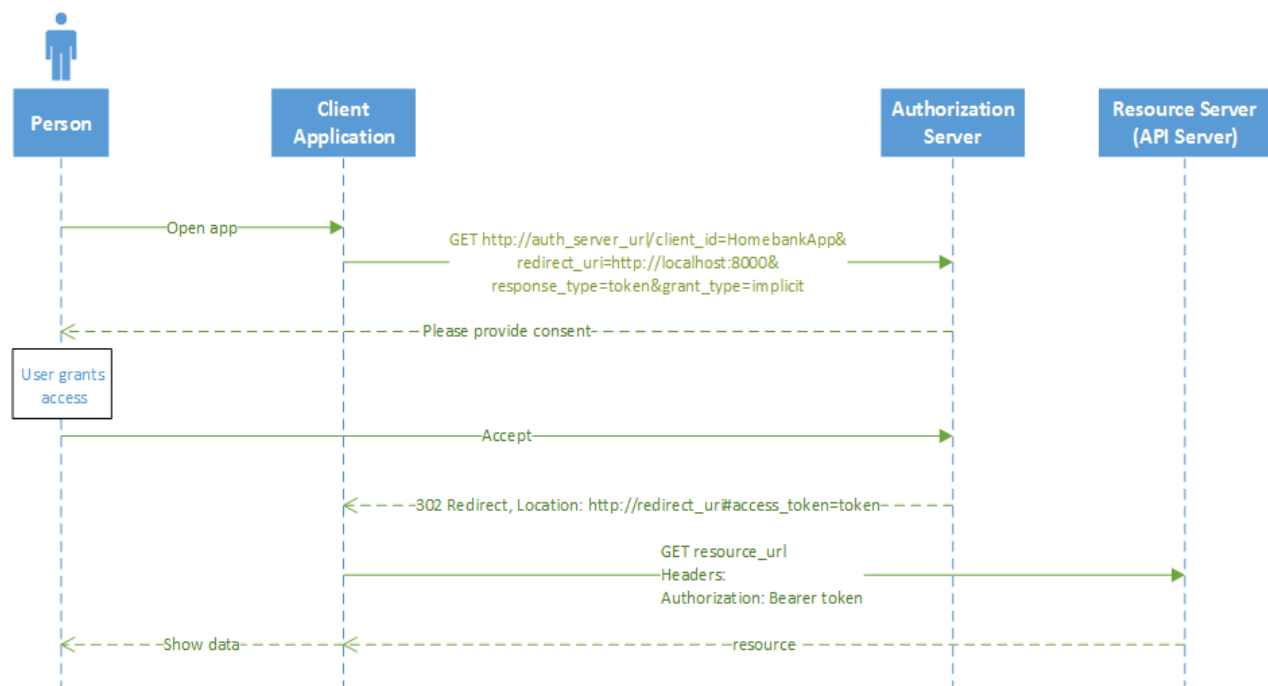
Obtaining the token

The first step in the flow is obtaining the token. For this your client application has to first redirect the user's browser to the Authorization Server. When the user grants access to your application, the Authorization Server will generate a token and redirect the user's browser to your application passing the token in the URL fragment.

| RO | https://api.homebank.ro/oauth2/oauth2-token-service/oauth/authorize |
| ES | https://apisandbox.ingdirect.es/authserver/oauth2/authorization |
| NL | https://commonapi.paymentslab.nl/authserver/oauth2/authorization |

The following parameters need to be passed via the query string, identifying your client application

Parameter	Required	Value
client_id	x	HomebankApp
redirect_uri	x	YOUR_APPS_URL - URL where the token will be redirected
response_type	x	token
grant_type	x	implicit

Example:

NL:
https://commonapi.paymentslab.nl/authserver/oauth2/authorization?client_id=HomebankApp&redirect_uri=http://localhost:8000&response_type=token&grant_type=implicit
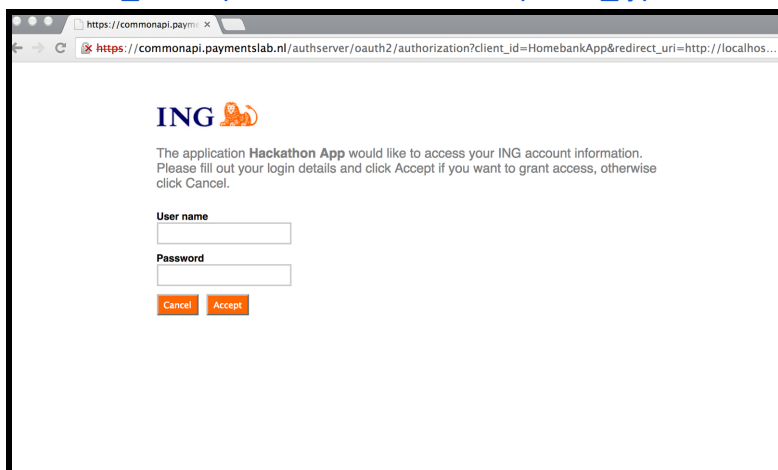
Once the user puts in the right credentials (see below User Credentials By Country) and clicks Accept, the Authorization Server will redirect the browser to the value of the redirect_uri parameter returning the token inside the fragment URL, for example:

http://localhost:8000/#access_token=eyJhbGciOiJIUzI1NiIsImN0eSI6InRleHRcL3BsYWluIn0. eyJleHAiOjE0MTMyOTI1MDYsIm5vbmNlIjoiNTFkZDM4ODYtOTI1MS00ZDk0LWI3MzQtODZl ZWExOTJkMjgzIiwiYXVkIjpbImNsaWVudF9pZCJdLCJpc3MiOiJ0ZXN0IiwianRpIjoiYjc2YTVm YmMtNzAwMi00YmM3LTkxNWYtY2I5NWU1MTRjNGI0IiwiaWF0IjoxNDE0MDY5NzU5fQ.ALu Pu_TQBtZd8Uha0Z0jQrqil14p1koteeZ_30ft4V0&state=&token_type=Bearer
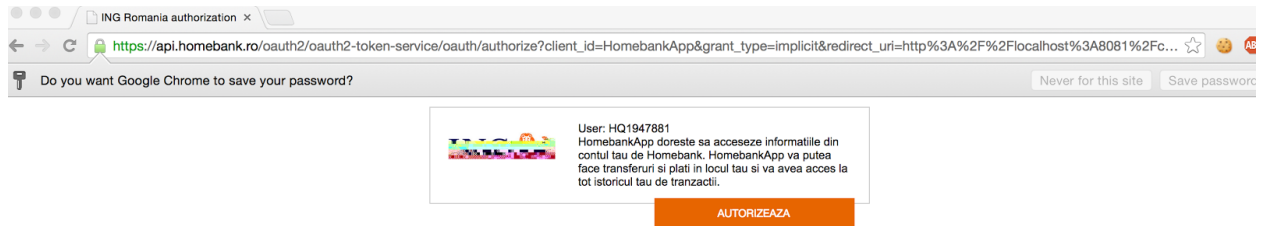
Your application then needs to extract the value of the access_token from the fragment of the URL. With this token you may then make authorized API calls on behalf of the user.
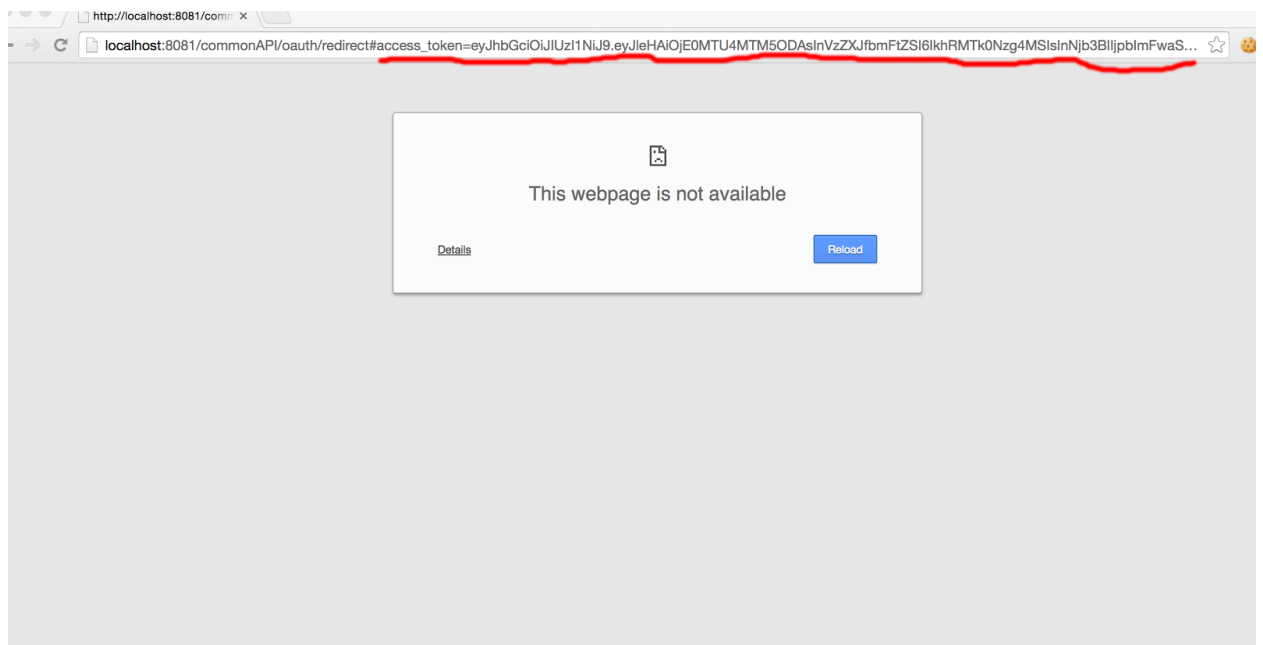
RO specifics:

For the Romanian Authorization Screen you also need to select the 'Parola/Password' radio button value before clicking Login

Next is clicking 'Autorizeaza' to grant permission to the app to use the API

ING Romania authorization ×

https://api.homebank.ro/oauth2/oauth2-token-service/oauth/authorize?client_id=HomebankApp&grant_type=implicit&redirect_uri=http%3A%2F%2Flocalhost%3A8081%2Fc...

Do you want Google Chrome to save your password?   Never for this site   Save password

User: HQ1947881
HomebankApp doreste sa acceseze informatiile din contul tau de Homebank. HomebankApp va putea face transferuri si plati in locul tau si va avea acces la tot istoricul tau de tranzactii.

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Last is getting the access token

http://localhost:8081/comm ×

localhost:8081/commonAPI/oauth/redirect#access_token=eyJhbGciOiJIUzI1NiJ9.eyJleHAiOjE0MTU4MTM5ODAsInVzZXJfbmFtZSI6IkhRMTk0Nzg4MSIslnNjb3BlIjpbImFwaWwS...

This webpage is not available

Details   Reload

User Credentials By Country

RO	User: CIF prefixed with customer's first and last name initials, example AA1774447 Password: Silver.1
ES	User: NIF value , example 70011016M Birthdate, example 1-1-1960 Password: 111
NL	User: CIF value , example: 10101 Password: password

Making API calls

Now that you have obtained the token you can start making API requests. The API URLs for each country are:

http://ingcommonapi-test.apigee.net/commonapi/v0/<country>/

RO	http://ingcommonapi-test.apigee.net/commonapi/v0/ro/
ES	http://ingcommonapi-test.apigee.net/commonapi/v0/es/
NL	http://ingcommonapi-test.apigee.net/commonapi/v0/nl/

Some examples:

/me

Request
curl -X GET -H "Authorization: Bearer eyJhbGciOiJIUzI1NiIsImN0eSI6InRleHRcL3BsYWluIn0.eyJleHAiOjE0MTMyOTI1MDYsIm5vbmNlIjoiNTFkZDM4ODYtOTI1MS00ZGk0LWI3MzQtODZlZWExOTJkMjgzIiwiYXVkIjpbImNsaWVudF9pZCJdLCJpc3MiOiJ0ZXN0IiwianRpIjoiYjc2YTVmYmMtNzAwMi00YmM3LTkx

NWYtY2I5NWU1MTRjNGI0IiwiaWF0IjoxNDE0MDY5NzU5fQ.ALuPu_TQBtZd8Uha0Z0jQrqi
l14p1koteeZ_30ft4V0"
http://ingcommonapi-test.apigee.net/commonapi/v0/nl/me?apikey=Co4wObhYWMlObYZO7
ZB7YyNCyfOUervM

Response

{"userId":"bogdan"}

/persons/10101

Request

curl -X GET -H "Authorization: Bearer
eyJhbGciOiJIUzI1NiIsImN0eSI6InRleHRcL3BsYWluIn0.eyJleHAiOjE0MTMyOTI1MDYsIm5
vbmNlIjoiNTFkZDM4ODYtOTI1MS00ZDk0LWI3MzQtODZlZWExOTJkMjgzIiwiYXVkIjpbIm
NsaWVudF9pZCJdLCJpc3MiOiJ0ZXN0IiwianRpIjoiYjc2YTVmYmMtNzAwMi00YmM3LTkx
NWYtY2I5NWU1MTRjNGI0IiwiaWF0IjoxNDE0MDY5NzU5fQ.ALuPu_TQBtZd8Uha0Z0jQrqi
l14p1koteeZ_30ft4V0"
http://ingcommonapi-test.apigee.net/commonapi/v0/nl/persons/10101?apikey=Co4wObhY
WMlObYZO7ZB7YyNCyfOUervM

Response

{"id":"10101","gender":{"code":"u","label":""},"salutation":{"code":"undef","label":""},"name":"
Koppe,Iris","birthDate":null,"residenceCountry":null,"addresses":[{"preferred":false,"street":"
Wijttenbachstraat 30 1093 JK Amsterdam NL"}]}

/persons/10101/accounts

Request

curl -X GET -H "Authorization: Bearer
eyJhbGciOiJIUzI1NiIsImN0eSI6InRleHRcL3BsYWluIn0.eyJleHAiOjE0MTMyOTI1MDYsIm5
vbmNlIjoiNTFkZDM4ODYtOTI1MS00ZDk0LWI3MzQtODZlZWExOTJkMjgzIiwiYXVkIjpbIm
NsaWVudF9pZCJdLCJpc3MiOiJ0ZXN0IiwianRpIjoiYjc2YTVmYmMtNzAwMi00YmM3LTkx
NWYtY2I5NWU1MTRjNGI0IiwiaWF0IjoxNDE0MDY5NzU5fQ.ALuPu_TQBtZd8Uha0Z0jQrqi
l14p1koteeZ_30ft4V0"
http://ingcommonapi-test.apigee.net/commonapi/v0/nl/persons/10101/accounts?apikey=Co
4wObhYWMlObYZO7ZB7YyNCyfOUervM

Response

{"list":[{"id":"NL82INGX0003783890","type":{"code":"SDA","label":"This is an Account"},"subType":{"code":"1100","label":"Label for 1100"},"customerDescription":"Koppe,Iris","currency":{"code":"EUR","label":"unknown"},"availableBalance":{"value":72561.47,"currency":{"code":"EUR","label":"unknown"}},"iban":"NL82 INGX0003783890"},{"id":"T16694274","type":{"code":"SDA","label":"This is an Account"},"subType":{"code":"1000","label":"Label for 1000"},"customerDescription":"Koppe,Iris","currency":{"code":"EUR","label":"unknown"},"availableBalance":{"value":109311.00,"currency":{"code":"EUR","label":"unknown"}},"iban":"T16 694274"}]}

Invalid or expired token

If the token is invalid or expired, the response from the server will have the HTTP Status 401

During the hackathon the tokens will not expire.