AUTHENTICATION AND AUTHORIZATION

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Workshop 4

Big and Open Data and Innovative Hubs in Agriculture, Transport and Rural Development

Czech University of Life Sciences, Prague

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WORKSHOP 4

https://github.com/jirik/layman-workshop

- Karel Charvát - Purpose of workshop
- Jiří Kozel - What is Layman and how it works
- Raitis Berzins - Map composition
- Jiří Kozel, Jiří Kvapil - How to install Layman in cloud
- Jiří Kozel - Layman API
- Jiří Kozel - Authentication and authorization
- Jiří Kozel - Interaction with Metadata (Micka)
- Jan Vrobel - QGIS plugins for accessing maps and map composition from server
- Jan Vrobel - QGIS plugin for Web data publishing using Layman
- Raitis Berzins - HSLayers NG as client for Layman

WARNING!

THIS PART IS ALSO TECHNICAL!

AUTHENTICATION

- process of obtaining and ensuring identity of user from incoming request to REST API
- performed by chain of zero or more authentication modules
- if no module succeeds, user is considered **anonymous**

AUTHENTICATION

Two basic options

- use **no authentication module**, so every user is considered as anonymous
  - default
- **OAuth2** module with Liferay as authorization server
  - detailed documentation

AUTHORIZATION

- process that decides if authenticated user has permissions to perform the request to REST API
- performed by single authorization module
- if the user does not have enough permissions, an "Unauthorised access" exception is raised

AUTHORIZATION

Types of operations	corresponding HTTP method
read	GET
write	POST, PUT, PATCH, DELETE

AUTHORIZATION

Two basic options

- **read everyone, write everyone**
  - everyone including anonymous user is able to read and write to anybody`s workspace
  - default
- **read everyone, write owner**
  - everyone including anonymous user is able to read anybody`s workspace, but only user that owns the workspace is able to write

CHECK CURRENT USER

1. Visit http://<your IP address>/ in your web browser
2. Choose **Current User**, endpoint **Current User**, method **GET**
3. Click **Submit**

CHECK CURRENT USER


```
{
  "authenticated": false,
  "claims": {
    "iss": "http://layman:8000/",
    "name": "Anonymous",
    "nickname": "Anonymous"
  }
}
```

MATERIALS

https://github.com/jirik/layman-workshop

LOG IN

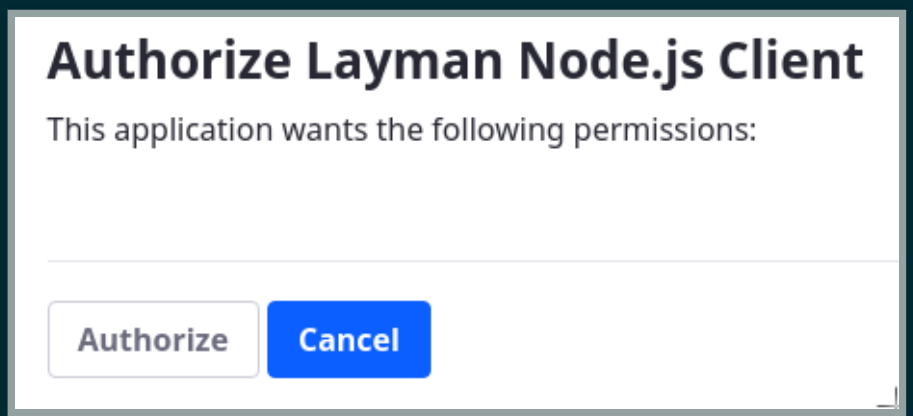
1. Visit http://<your IP address>/ in your web browser
2. Click **Log In**
    - you are forwarded to different domain where Liferay is running

LOG IN

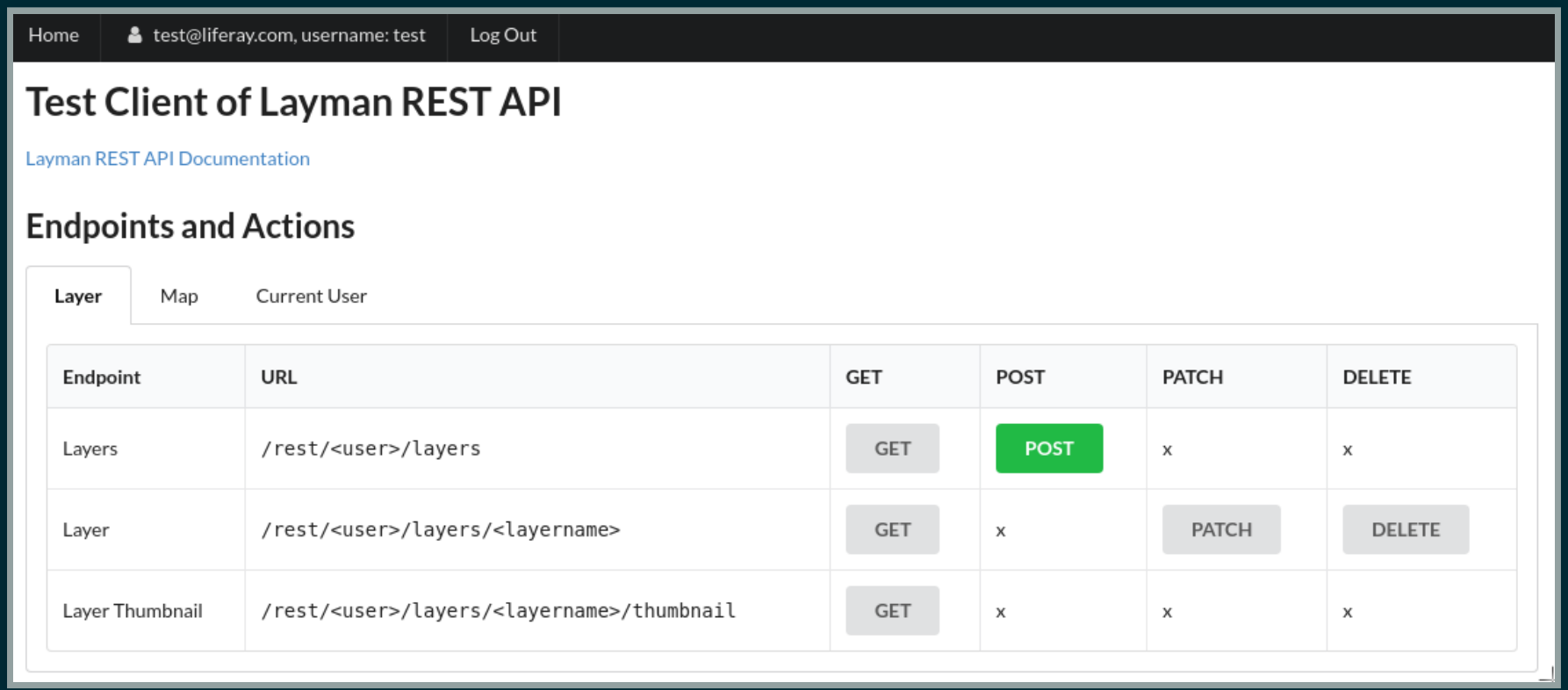
2. Set
    - Email Address: test@liferay.com
    - Password: test
    - Remember Me: checked
3. Click **Sign In**

LOG IN

5. Click **Authorize**



LOG IN


Home
test@liferay.com, username: test
Log Out
Test Client of Layman REST API
Layman REST API Documentation
Endpoints and Actions
Layer
Map
Current User
Endpoint
URL
GET
POST
PATCH
DELETE
Layers
/rest/<user>/layers
GET
POST
x
x
Layer
/rest/<user>/layers/<layername>
GET
x
PATCH
DELETE
Layer Thumbnail
/rest/<user>/layers/<layername>/thumbnail
GET
x
x
x

CHECK CURRENT USER AGAIN

1. Choose **Current User**, endpoint **Current User**, method **GET**
2. Click **Submit**

CHECK CURRENT USER AGAIN


```
{
  "authenticated": true,
  "claims": {
    "email": "test@liferay.com",
    "email_verified": true,
    "family_name": "Test",
    "given_name": "Test",
    "iss": "http://167.172.174.152:8082/o/oauth2/authorize",
    "middle_name": "",
    "name": "Test Test",
    "preferred_username": "test",
    "sub": "20139",
    "updated_at": 1580279122416
  },
  "username": "test"
}
```