

From HTML to PostGIS

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Organizational information

- ① Our people
- ② Rules of conduct
- ③ HTML2PostGIS plan
- ④ Literature
- ⑤ Short HTML walkthrough

The staff I

Michał Okulewicz, PhD

- Alumnus of the MiNI Faculty
- An expert on INSPIRE directive
- Experience in GoogleMaps API, GraphHopper services and PostGIS spatial database
- Trainer on leaflet library

Maciej Bednarz, B.Eng.

- Alumnus of the MiNI Faculty (and PhD candidate)
- Java and web developer

Jan Karwowski, MSc

- Alumnus of the MiNI Faculty (and PhD candidate)
- Actually reads and understands ECMAScript standards

The staff II

Wojciech Kowalik, MSc

- Alumnus of the MiNI Faculty (and PhD student)
- .NET and web developer

Aneta Roślan, B.Eng.²

- Alumnus of both the MiNI and GiK faculties
- Experience in OpenLayers API and PostGIS spatial database
- Works as a front-end designer and developer

Marcin Sikorski, MSc

- Alumnus of the Electric Faculty and Civil Engineering Faculty
- Full-stack developer

Your goal and purpose

Why are you here?

Rules of conduct

Points:

- 40 pt - laboratories ($4 \times (2 + 8)$)
- 30 pt - project
- 30 pk - theoretical tests

Grades:

- 0 - 50 - 2
- 51 - 60 - 3
- 61 - 70 - 3.5
- 71 - 80 - 4
- 81 - 90 - 4.5
- 91+ - 5

You do not need to halve each part separately.

Lectures - WebApps

- Document typesetting with HTML standard
- Document formatting with CSS standard
- Syntax and functionality of ECMAScript (JavaScript)
- HTTP protocol
- REST services (based on .NET Core WebAPI)
- AJAX i and asynchronous web development
- Security of web applications

Lectures - GIS

- Definitions and legal aspects
- Cartographic mapping and spatial references systems
- OGC standards for data formats and web services
- JavaScript APIs (GoogleMaps, OpenLayers, Leaflet)
- Routing and geocoding services
- Spatial databases and indexing
- Geostatistics
- Artificial Intelligence in geoinformatics

Laboratories

- 4 2-people mini projects
- 4 laboratory tasks
 - HTML + CSS
 - JavaScript
 - .NET Core WebAPI / Java RESTfull services
 - Full-stack application

Project

Topics examples

- Decision support system for identifying potential building located on an aerial map
- Extending GoogleStreetView API by 3D navigation
- Application for locating mobile phones users with their location visualization

Mini project

First project challenge

Design user interface for electronic bank transfer form.

Literature I

- HTML5 standard
- CSS standards
- CSS Guidelines
- ECMAScript standard
- DIRECTIVE 2007/2/EC (INSPIRE),
- OGC Web Map Service 1.3.0,
- OGC Web Feature Service 1.1.0,
- OGC Geography Markup Language 3.3,
- Google/OGC KML 2.2.0,
- OGC Catalogue Service 2.0.2,

Literature II

- Litwin, Leszek. Metadane geoinformacyjne w INSPIRE i SDI. AproposGEO, 2010,
- P.Krawczyk, A.Roślan, M.Wierzchowski, Geoportal, praca inżynierska, 2013.

Short HTML walkthrough

- Purpose and structure of HTML
- HTML syntax and its connection to XML
- Block and inline elements
- Functional and visual elements
- Specification and tutorial examples