

# Flying Fist

2II25 - Web Technology

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Where innovation starts



# Problem Domain

- **Place search and browsing application**
- **Over 21 000 places within the Netherlands**
- **Over 300 000 triples**
- **Geographical information structure varies from country to country and changes in time**
- **Flexible data format needed**
- **Data is very linked within itself as well as to other resources around the web**



# Technical Solutions

- **CherryPy & RDFLib**
  - All RDF data in memory
- **PyLucene**
  - Full text index for the label search
- **Jquery, jQuery UI, Google Maps API**
  - Dynamic frontend functionality
- **Geonames API for additional data**
- **Internal REST API outputting JSON for AJAX calls**



# Semantic Data

- A flexible format needed for changing data
- Ontology
  - 15 properties
  - Hundreds of classes
    - All place types are sub classes of Feature
  - Instances create a hierarchical structure
- Data combined with external services
  - Using coordinates



# Interesting Facts

- Application name was automatically generated
- The search implementation took the most effort