

Akademia Górniczo – Hutnicza

im. Stanisława Staszica w Krakowie

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Wydział Elektrotechniki, Automatyki, Informatyki i Elektroniki

KATEDRA AUTOMATYKI



Sprawozdanie z laboratorium 2:  
Modeling knowledge with Resource  
Description Framework (RDF)

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Agata Sitnik

Adam Bereś

Kraków 2012

## 1. Semantic MediaWiki - Categories

<http://loki.ia.agh.edu.pl/smw/index.php/Piw2012/group1100/agata>

My name is Agata. I am 24 years old.

Currently I study at AGH UST, faculty of electrical engineering.

I belong to group on 11.00. The other members of my group are: Adam Beres.

[[Category:Student]]

<http://loki.ia.agh.edu.pl/smw/index.php/AGH-UST/Subjects/PUK>

[[Category:University subject]]

## 2. Semantic MediaWiki - Properties

<http://loki.ia.agh.edu.pl/smw/index.php/Piw2012/group1100/agata>

My name is [[Name::Agata]] [[Lastname::Sitnik]]. I am [[Old::24]] years old.

Currently I study at AGH UST, faculty of electrical engineering.

I belong to group on [[Group::11.00]]. The other members of my group are: Adam Beres.

[[Category:Student]]

<http://loki.ia.agh.edu.pl/smw/index.php/AGH-UST/Subjects/PUK>

[[Category:University subject]]

lead by: [[lead by::dr Bułka]]

room: [[room::A0]]

duration: [[duration::90]] min3.

### 3. Semantic MediaWiki - Inline queries

<http://loki.ia.agh.edu.pl/smw/index.php/Piw2012/group1100/agata>

My name is [[Name::Agata]] [[Lastname::Sitnik]]. I am [[Old::24]] years old.  
Currently I study at AGH UST, faculty of computer science.  
I belong to group on [[group::11.00]]. The other members of my group are: Adam Beres.

[[Category:Student]]

```
{{#ask: [[Category:Student]] [[group::11.00]]
|format=ul
}}
```

<http://loki.ia.agh.edu.pl/smw/index.php/Piw2012/group1100/agata>

My name is [[name::Agata]] [[lastname::Sitnik]]. I am [[age::24]] years old.  
Currently I study at AGH UST, faculty of computer science.  
I belong to group on [[group::11.00]]. The other members of my group are: Adam Beres.

[[Category:Student]]

```
{{#ask: [[Category:Student]] [[group::11.00]]
|?name
|?age
|?group
|format=table
|sort=age, name
|order=ascending,ascending
|default=nothing found in Category:Student
}}
```

## 4. Loki - Use Cases - Movie recommendation system

[http://loki.ia.agh.edu.pl/lokidev/filmy:piekny\\_umysl](http://loki.ia.agh.edu.pl/lokidev/filmy:piekny_umysl)

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==== Piękny umysł ====

{{ :filmy:umysl1.jpg?width=150px| }}

**\*\*Tytuł polski\*\***: [[tytul\_polski:=Piękny umysł]]

**\*\*Tytuł oryginalny\*\***: [[tytul\_oryginalny:=A Beautiful Mind]]

**\*\*Gatunek\*\***: [[gatunek::gatunki:dramat]]

**\*\*Rok produkcji\*\***: [[rok\_produkcji:=2001]]

**\*\*Kraj produkcji\*\***: [[kraj\_produkcji:=USA]]

**\*\*Scenariusz\*\***: [[scenariusz::osoby:lawrence\_kasdan | Lawrence Kasdan]]

**\*\*Reżyseria\*\***: [[rezyseria::osoby:ron\_howard | Ron Howard]]

**\*\*Obsada\*\***:

[[rola\_glowna::osoby:russell\_crowe | Russell Crowe ]] -

[[postac\_glowna::postacie:john\_forbes\_nash\_jr | John Forbes Nash Jr]]

[[rola\_drugoplanowa::osoby:jennifer\_connelly | Jennifer Connelly]] -

[[postac\_drugoplanowa::postacie:alicia\_nash | Alicia Nash]]

[[rola\_drugoplanowa::osoby:ed\_harris | Ed Harris]] -

[[postac\_drugoplanowa::postacie:william\_parcher | William Parcher]]

**\*\*Czas akcji\*\***: [[czas\_akcji:=1947]]

**\*\*Miejsce akcji\*\***: [[miejsce\_akcji:=Uniwersytet Princeton]]

**\*\*Język\*\***: [[jezyk:=angielski]]

[[category:film | ]]

[http://loki.ia.agh.edu.pl/lokidev/movies:beautiful\\_mind](http://loki.ia.agh.edu.pl/lokidev/movies:beautiful_mind)

~~NOCACHE~~

==== Piękny umysł ====

{{ :movies:umysl1.jpg?width=150px| }}

**\*\*Title\*\***: [[tytul\_oryginalny:=A Beautiful Mind]]

**\*\*Genre\*\***: [[gatunek::gatunki:drama]]

**\*\*Production Year\*\***: [[production\_year:=2001]]

**\*\*Production country\*\***: [[produced\_in\_country::countries:USA]]

**\*\*Screenplay\*\***: [[screenplay::persons:lawrence\_kasdan|Lawrence Kasdan]]

**\*\*Directed by\*\***: [[directed\_by::persons:ron\_howard|Ron Howard]]

**\*\*Cast\*\***:

[[main\_role::persons:russell\_crowe|Russell Crowe]] -

[[main\_character::characters:john\_forbes\_nash\_jr|John Forbes Nash Jr]]

[[supporting\_role::persons:jennifer\_connelly|Jennifer Connelly]] -

[[supporting\_character::characters:alicia\_nash|Alicia Nash]]

[[supporting\_role::persons:ed\_harris|Ed Harris]] -

[[supporting\_character::characters:william\_parcher|William Parcher]]

**\*\*Action time\*\***: [[action\_time:=1947]]

**\*\*Action place\*\***: [[action\_place:=Uniwersytet Princeton]]

**\*\*Language\*\***: [[language:=english]]

[[category:movie| ]]

[http://loki.ia.agh.edu.pl/lokidev/bookstore:book:martin\\_eden](http://loki.ia.agh.edu.pl/lokidev/bookstore:book:martin_eden)

=====  
Book details: =====

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[[category:book]]

{{ :bookstore:book:london.jpg?width=150px|martin\_eden}}

**\*\*Title\*\***: [[title:=Martin Eden]]

**\*\*Author\*\***: [[author::bookstore:author:jack\_london]]

**\*\*Publisher\*\***: [[publisher::bookstore:publisher:mea]]

**\*\*Date\*\***: [[date:=2000]]

**\*\*Language\*\***: [[language:=english]]

**\*\*Genre\*\***: [[genre::bookstore:genre:drama]]

**\*\*Pages\*\***: 367

**\*\*Keywords\*\***: [[keyword:=lifestyle]]

=====  
Recommendation: =====

**\*\*Books by this author\*\***: {{#ask: [[category:book]]  
[[author::bookstore:author:jack\_london]] }}

**\*\*Books in this genre\*\***: {{#ask: [[category:book]] [[genre::bookstore:genre:drama]] }}

**\*\*Books by this publisher\*\***: {{#ask: [[category:book]]  
[[publisher::bookstore:publisher:mea]] }}

[http://loki.ia.agh.edu.pl/lokidev/osoby:russell\\_crowe](http://loki.ia.agh.edu.pl/lokidev/osoby:russell_crowe)

[[category:aktor| ]]  
{{ :osoby:russell.jpg?width=150px| }}  
Imię i nazwisko: [[imie\_nazwisko:=Russel Crowe]]  
Płeć: [[plec:=M]]  
Data urodzenia: [[data\_urodzenia:=1964-04-07]]  
Miejsce urodzenia: [[miejsce\_urodzenia:=Wellington]]

## 5. Loki - Use Cases - Geographic Wiki

<http://loki.ia.agh.edu.pl/lokidev/cities:budva>

Budva is a city in [[capital of::located in::countries:montenegro|Montenegro]]. Budva is inhabited by [[inhabited by:=population:=15 909]] people. Area of Budva is [[area:=122]] km<sup>2</sup>.

Budva is located at the seaside of [[at the seaside::plwikidev:seas:Adriatic Sea]].

[[page created:=2012-06-10| ]]

<http://loki.ia.agh.edu.pl/lokidev/countries:montenegro>

Montenegro (Crna Gora, meaning "Black Mountain") is a [[Category:country]] in [[placed\_in::continents:southeastern\_europe|Southeastern Europe]]. It has a coast on the [[at the seaside::plwikidev:seas:Adriatic Sea]] to the south-west and is bordered by [[countries:croatia|Croatia]] to the west, [[countries:bosnia\_and\_herzegovina|Bosnia and Herzegovina]] to the northwest, [[countries:serbia|Serbia]] to the northeast and [[countries:albania|Albania]] to the southeast. Its capital and largest city is [[cities:podgorica|Podgorica]].

## 6. Loki - Semantic Web Standards

<http://loki.ia.agh.edu.pl/lokidev/user:asitnik>

```
<pl format="sparql">
PREFIX wiki: <>
SELECT ?city ?area
WHERE {
  ?city category "city".
  ?city wiki:area ?area.
}
ORDER BY ASC(?area)
LIMIT 3
</pl>
```

## 7. Loki - Reasoning

<http://loki.ia.agh.edu.pl/lokidev/user:asitnik>

```
PROLOG - my recommendations
=== My favourite books ===
~~NOCACHE~~
<pl
goal="wiki_category(X,'book'),wiki_attribute(X,'title',Y),wiki_relation(X,'genre','bookstore:
genre:drama'),write(Y),nl,fail" scope="bookstore:book">
</pl>
```