

TECNICAL UNIVERSITY OF MADRID

COMPUTER SCIENCE SCHOOL

PRACTICAL WORK

**DEVELOPMENT OF A CULTURAL  
EVENT ONTOLOGY REUSING  
GENERAL ONTOLOGIES**

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Course in Ontologies and the Semantic Web in the Master in Artificial  
Intelligence

Course 2011-2012

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# 1 Competences to be acquired (or strengthened)

The students should acquire the following competencies:

- 1) Methodological ontology development.
- 2) General ontology reuse.

## 2 Number of components of the working group

The working group must be made up by one or two members.

## 3 Task to carry out

Each student must develop a cultural event ontology that answers, at least, the following competency questions (CQs)<sup>1</sup>:

CQ id	Informal CQ	Answer	Comment
CQ <sub>1</sub>	When does the London Symphony Orchestra play in October of 2011?	1 <sup>st</sup> , 2 <sup>nd</sup> , 4 <sup>th</sup> , 6 <sup>th</sup> , 7 <sup>th</sup> , 9 <sup>th</sup> , 11 <sup>th</sup> , 12 <sup>th</sup> , 13 <sup>th</sup> , 14 <sup>th</sup> , 15 <sup>th</sup> , 16 <sup>th</sup> , 19 <sup>th</sup> , 20 <sup>th</sup> , 21 <sup>st</sup> , 23 <sup>rd</sup> , 27 <sup>th</sup> , 30 <sup>th</sup> , 31 <sup>st</sup> of September of 2011.	--
CQ <sub>2</sub>	What works were interpreted by the London Symphony Orchestra in the concert of the 4 <sup>th</sup> of October of 2011?	<ul style="list-style-type: none"> <li>– Haydn Symphony No 92 ('The Oxford')</li> <li>– Nielsen Symphony No 1</li> <li>– Beethoven Piano Concerto No 3</li> </ul>	
CQ <sub>3</sub>	What works will be interpreted by the London Symphony Orchestra during the 2010/2011 season?	<ul style="list-style-type: none"> <li>– Beethoven Piano Concerto No 3</li> <li>– Beethoven Piano Sonata No 10 in G major</li> <li>– Beethoven Piano Sonata No 22 in F major</li> <li>– Beethoven Piano Sonata No 15 in D major ('Pastoral')</li> <li>– Haydn Symphony No 92 ('The Oxford')</li> <li>– Nielsen Symphony No 1</li> <li>– ...</li> </ul>	--
CQ <sub>4</sub>	What works are repeated in several concerts of the London Symphony Orchestra 2010/2011 season?	<ul style="list-style-type: none"> <li>– Britten War Requiem</li> <li>– ...</li> </ul>	It is interpreted, at least, the 9 <sup>th</sup> and the 11 <sup>th</sup> of October of 2011.
CQ <sub>5</sub>	What are the groups of instruments of the London Symphony Orchestra?	<ul style="list-style-type: none"> <li>– First violins.</li> <li>– Second Violins.</li> <li>– Violas.</li> <li>– Cellos.</li> <li>– ...</li> </ul>	--
CQ <sub>6</sub>	Who are London Symphony Orchestra's first violins?	<ul style="list-style-type: none"> <li>– Gordan Nikolitch</li> <li>– Roman Simovic</li> <li>– Ginette Decuyper</li> <li>– Jörg Hammann</li> <li>– ...</li> </ul>	--
CQ <sub>7</sub>	Who are London Symphony Orchestra's first violin leaders?	<ul style="list-style-type: none"> <li>– Gordan Nikolitch</li> <li>– Roman Simovic</li> </ul>	--

**IMPORTANT NOTE:** it is not necessary to be exhaustive introducing information in the system. It is only necessary to introduce the data that allow the student to test the built ontology.

<sup>1</sup> The student can find information on the London Symphony Orchestra in <http://lso.co.uk/whatson/programmes> for the programmes and <http://lso.co.uk/page/3128/Players> for the structure of the orchestra

## 4 The required products

The students must deliver:

- 1) A report
- 2) The resulting ontology in OWL.
- 3) A file with the CQs of section 3 in SPARQL.

The report must be delivered in paper and e-mail to the addresses: [mfernandez.eps@ceu.es](mailto:mfernandez.eps@ceu.es) and [masterr09@delicias.dia.fi.upm.es](mailto:masterr09@delicias.dia.fi.upm.es). It is preferable Word format, although PDF will be also accepted. Concerning the resulting ontology and the SPARQL questions, they must be sent by e-mail to the aforementioned addresses.

The report must have, at least, the following parts:

- Title page. It will contain, at least, the name and the e-mail address of the student.
- Introduction.
- The development of the work. It should include, at least, the following information (making emphasis in the difficulties):
  - a) The comparative study of general ontologies.
  - b) The making of the decision of what general ontologies have been reused.
  - c) The customization and integration of the general ontologies.
- Filled questionnaire (see Table 1).

## 5 Deadline

The products must be delivered by the 4<sup>th</sup> of November of 2011.

## 6 Questions

You can pose them through [mfernandez.eps@ceu.es](mailto:mfernandez.eps@ceu.es)

Table 1. Questionnaire about the proposed methodological guidelines to reuse general ontologies.

Question	Score				
	-	1	2	3	+
<b>THE PROVIDED MEREOLGY MODELING DESCRIPTION</b>					
1. Is it precise enough?					
2. Is it understandable enough?					
3. Is it complete enough?					
4. Are all its explanations necessary?					
<b>THE PROVIDED TIME MODELING DESCRIPTION</b>					
5. Is it precise enough?					
6. Is it understandable enough?					
7. Is it complete enough?					
8. Are all its explanations necessary?					
<b>THE PROVIDED GUIDELINES TO ELABORATE THE COMPARATIVE STUDY</b>					
9. Are there precise enough?					
10. Are there understandable enough?					
11. Are there complete enough?					
12. Are all their explanations necessary?					
<b>THE PROVIDED GUIDELINES TO MAKE THE DECISION ON WHAT GENERAL ONTOLOGIES ARE GOING TO BE REUSED</b>					
13. Are there precise enough?					
14. Are there understandable enough?					
15. Are there complete enough?					
16. Are all their explanations necessary?					
<b>THE PROVIDED GUIDELINES TO CUSTOMIZE AND INTEGRATE THE SELECTED ONTOLOGY</b>					
17. Are there precise enough?					
18. Are there understandable enough?					
19. Are there complete enough?					
20. Are all their explanations necessary?					

**COMMENTS AND SUGGESTIONS:**

We are especially interested in the comments and suggestions for those features to which you have assigned lower values (1, 2 or 3).