Upskilling to Object-Oriented Software Development with UML

Georgi Tuparov, Juliana Peneva, Petia Asenova, Stanislav Ivanov

Abstract: The paper describes the project “Upskilling to Object-Oriented Software Development with UML”

Key words: blended learning, UML

WHAT IS THE UP2UML PROJECT?
Up2UML is a European project funded by the European Commission under the Leonardo da Vinci programme. Project partners include researchers from Bulgaria, France, Germany, Romania and Ireland.

Up2UML aims to
- develop new content and training material for UML2;
- develop syllabi for different target groups;
- develop innovative training concepts (e.g. distance learning with on-line tutoring; social learning, virtual learning cycles, community of practice).

PARTNERS
The partners and their role in the project are presented in the Table 1.

<table>
<thead>
<tr>
<th>Partner</th>
<th>Roles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fraunhofer Institute for Experimental Software Engineering</td>
<td>Project Management, Development of Learning &amp; Training Material, UML courseware in different languages, for different target groups</td>
</tr>
<tr>
<td>National College of Ireland</td>
<td>Blended Learning, Evaluation, Localization, Dissemination</td>
</tr>
<tr>
<td>Institut National Polytechnique de Toulouse</td>
<td>Learning Methodology, Guidebooks for the practical application of work-based learning &amp; training methods in several languages</td>
</tr>
<tr>
<td>Softwin SRL</td>
<td>Courseware Evaluation, Localization, Dissemination</td>
</tr>
<tr>
<td>New Bulgarian University</td>
<td>Courseware Evaluation, Localization, Dissemination</td>
</tr>
</tbody>
</table>
NEED ANALYSIS RESULTS
During the need analysis survey were found the following basic issues:

- UML is not properly used in the software industry.
- Training is needed.
- The most important topic to be covered should be methodology.
- The training should be practically oriented.
- The learning content should be web based.

According to the need analysis the learning content was developed. The pilot course could be found at [2]. The course is SCORM compatible and includes lessons with interactive exercises, videos and tests. The part of the course, imported in CMS Moodle [1] is presented in Figure 1 [2].

CONCLUSIONS AND FUTURE WORK
The next steps of the project are:

- Localisation in German, France and Bulgarian.
- Pilot training.

REFERENCES

ABOUT THE AUTHOR
Assoc.Prof. Georgi Tuparov, PhD, Department of Computer Science, New Bulgarian University, Phone: +359 2 8110611, E-mail: georgett@avala.bg
Assoc.Prof. Juliana Peneva, PhD, Department of Computer Science, New Bulgarian University, Phone: +359 2 8110611, E-mail: july_peneva@abv.bg
Assoc.Prof. Petia Asenova, PhD, Department of Computer Science, New Bulgarian University, Phone: +359 2 8110611, E-mail: pasenova@nbu.bg
Assoc.Prof. Stanislav Ivanov, PhD, Department of Computer Science, New Bulgarian University, Phone: +359 2 8110611, E-mail: sivanov@nbu.bg