Hanus, Michael

Declarative processing of semistructured web data. (English) Zbl 1245.68074

Gallagher, John P. (ed.) et al., Technical communications of the 27th international conference on logic programming (ICLP 2011), Lexington, Kentucky, USA, July 6–10, 2011. Wadern: Schloss Dagstuhl – Leibniz Zentrum für Informatik (ISBN 978-3-939897-31-6). LIPIcs – Leibniz International Proceedings in Informatics 11, 198-208, electronic only (2011).

Summary: In order to give application programs access to data stored in the web in semistructured formats, in particular, in XML format, we propose a domain-specific language (DSL) for declarative processing such data. Our language is embedded in the functional logic programming language Curry and offers powerful matching constructs that enable a declarative description of accessing and transforming XML data. We exploit advanced features of functional logic programming to provide a high-level and maintainable implementation of our language. Actually, this paper contains the complete code of our implementation so that the source text of this paper is an executable implementation of our embedded DSL.

For the entire collection see [Zbl 1237.68017].

MSC:

68P05 Data structures
68N17 Logic programming
68N18 Functional programming and lambda calculus

Keywords:

functional logic programming; domain specific languages; XML

Full Text: DOI Link