## INTERACTIVE PLATFORM FOR TEACHING AND ASSESSING STUDENTS IN LOGIC PROGRAMMING WITH PROLOG: AUTOMATED CREATION OF KNOWLEDGE BASES AND RULES

## Magdalena Maglizhanova, Veneta Tabakova-Komsalova, Stanimir Stoyanov, Laska Kostadinova-Tzankova

**Abstract.** In this article, we consider the possibility of introducing logic programming training in the Prolog language to secondary school students. The training is carried out in an interactive and innovative way by combining SQL and Prolog in a web application. The application facilitates programming educators by providing them with a tool that allows them to demonstrate the principles of logic programming and working with databases integrated within ASP.NET. Thanks to the integration between SQL and Prolog, students have the opportunity to experiment with practical examples combining logic and data, which contributes to a deeper understanding of abstract concepts in programming. The application was developed to facilitate the teaching and learning of complex topics by encouraging active student participation in working with Prolog.

**Key words:** Education, artificial intelligence, logic programming, project-based learning, STEM.

## Acknowledgments

The research is supported by the project KP-06-M62/2 "Modelling of knowledge in the field of Bulgarian folklore" funded by the National Research Fund.

Magdalena Maglizhanova<sup>1</sup>, Veneta Tabakova-Komsalova<sup>1,2</sup>, Stanimir Stoyanov<sup>1,2</sup>, Laska Kostadinova-Tzankova<sup>1</sup>, <sup>1</sup> Paisii Hilendarski University of Plovdiv, Faculty of Mathematics and Informatics, 236 Bulgaria Blvd., 4003 Plovdiv, Bulgaria <sup>2</sup> Institute of Information and Communication Technologies, Bulgarian Academy of Sciences, Sofia, Bulgaria Corresponding author: v.komsalova@uni-plovdiv.bg