

In this thesis we present the Pikater multi-agent system, which is designed to provide the researchers an environment for testing various data mining methods, that are the part of the system, as well as let them experiment with their own data mining methods. The system is also capable of recommending a data mining method for the never-before-seen datasets. The algorithm of choosing the best possible method is based on finding the similarities in the datasets and on the system's previous experience with solving similar tasks. Finding the nearest dataset is based on the proposed metric on metadata — the general information about the datasets. To implement our system, we used the JADE platform, agents embed the Weka data mining methods. The communication among individual agents follows the FIPA protocols and the content of the messages is specified by messages ontology.