

Development of a Chat-Bot Graphical Designer

Nataliya Gulayeva and Mykhailo Kobieliev

Department of Informatics, National University of «Kyiv-Mohyla Academy», Kyiv, Ukraine,
michael.kobelev@outlook.com, ngulayeva@yahoo.com

Chat-bot is a computer program conducting conversations with humans via natural language. There exist several chat-bot classification methods: by interaction mode, design technique, usage goal etc. In this paper, text rule-based task-oriented chat-bots are considered. A graphical designer for these chat-bots to be created and integrated in the Telegram messenger is developed and implemented. At that, chat-bot behaviour is modelled using Finite State Machine (FSM) extended by disabled transitions to save history of transition changes made during FSM design process.

There exist dozens of different methods to generate code from FSM specification; their pros and cons are considered. A new dynamic approach for FSM implementation is proposed where FSM structure is kept in a non-relational database. This approach is efficient in flexibility, speed, and memory needs.

Our graphical chat-bot designer is implemented via microservice architecture. There are services responsible for end-user graphical interface, for document database handling, for synchronization of document database with in-memory key-value database, and there is a service interpreting commands from FSM specification during chat-bot execution mode.

Modern Frameworks for Web-Application Development

Ainura Gumarova and Gaukhar Kamalova

Zhangir Khan West Kazakhstan Agrarian-Technical University, str. Zhangir Khan, 51, Uralsk,
Kazakhstan, G_ainura_91@mail.ru

Currently, web programming technologies are actively developing. The article discusses the types of popular frameworks, technologies (MVC) and tools designed for the development of web applications taking into account modern standards. The characteristics of architectures and the type of frameworks are given. The popular server and client frameworks and programming languages with which they work are considered. The advantages and disadvantages of each of the considered tools are noted.

Acknowledgment. The presented research was supported by the project ERASMUS+ ACeSYRI: Advanced Center for PhD Students and Young Researchers in Informatics reg.no. 610166-EPP-1-2019-1-SK-EPPKA2-CBHE-JP.

