

## **ABSTRACT**

The bachelor's thesis describes the process of creating an educational course on the topic of fractions in a chatbot environment. The aim of the thesis is to develop a practically usable course for preparation for the unified entrance exams.

The theoretical part of the thesis focuses on explaining the issues of programmed learning and programmed machines, including their historical development. This is followed by a chapter focused on the issues of artificial intelligence, its current problems, and applications in the form of chatbots, particularly in the context of their use in education. Additionally, the thesis outlines the specifics of teaching fractions in Czech elementary schools, primarily through the analysis of curricular documents and the results of the unified entrance exam.

In the practical part, the EDU AI chatbot environment and its specifics are first introduced. This is followed by a description of the course creation and a discussion of the issues related to individual lessons and their tasks. A separate chapter is dedicated to the continuity, structure, sequence of lessons, and error handling. The conclusion evaluates the created course and considers possible expansions not only of the course but also of the utilized educational environment.

## **KEYWORDS**

chatbot, tutoring, online courses, fractions, AI