

The thesis describes the development of the web application Starting With Computer Science (Začínáme s informatikou) for teaching computer science at the lower secondary level (ISCED 2). The application contains five themes. Each topic is divided into an introductory theoretical section and an interactive part. For example, it includes activities such as matching pairs on the topic of data storage, assembling a computer motherboard, or finding a path in a graph. In the thesis, the newly updated Czech national computing curriculum for lower secondary education, known as New Informatics, is introduced, followed by an analysis of existing interactive educational websites. Then we present an analysis of our solution, the user and application development documentation. Finally, we review the progress and results from testing the application with third-year students at an eight-year gymnasium.