

When developing web applications, meeting performance requirements is vital to customer acceptance of the applications. Therefore, performance testing is an important part of their development. This thesis focuses on the implementation of a performance testing tool that would cover the functionality needed to test web applications, would be comparable with commercially available tools, would have the ability to generate load defined by scripts, and would offer functionality that is not widely offered by such tools, such as automatic request headers generation or variable script branching. The desired functionality was derived from the analysis of selected web applications, and the implemented tool is capable of simulating users interacting with these applications. This was proved by the creation of series of tests on Slovak Cadastral Portal and RUBiS benchmark site, whose results are included in the thesis.