

Abstract

The number of journal articles, books, proceedings and other resources of scientific literature are continuously increasing. Partially, these resources get digitalized and further increase the already huge number of digital resources flooding scientist's desktops. Therefore, adequate literature organization is absolutely indispensable. The market recognized this issue and offers useful reference management software tools using huge bibliographic databases for an efficient way of management. Despite the large number of reference management applications available it is not ensured that the needed functional scope is covered. Thus, sometimes individual solutions have to be developed. The main focus of this thesis was the customized re-implementation of the Reference Database for the Institute for Genomics and Bioinformatics providing enhancement in processing and improved management capabilities such as edit and delete functions to simplify the everyday life of scientists. Also the importance of online databases providing information about resources and their close connection to reference management software is pointed out. Additionally, several familiar software applications within this context are mentioned and partially compared. Finally, the benefits of the developed in-house application compared to popular existing tools are discussed. The Reference Database is realized using web technologies such as HTML, JS and PHP providing high portability and license free development. A MySQL databases was implemented for proper storage of resource information. Finally, a well customized Reference Database meeting the requirements of the Institute for Genomics and Bioinformatics was developed. The functional scope and the usability in comparison to the predecessor were significantly increased.

Keywords: Literature Organization, Reference Management, Citation, Web-Development, Management Application