

I. IDENTIFICATION DATA

Title:	User interface development for advanced searching in the MBDB
Author's name:	Kryštof Krejčí
Type of assignment:	Bachelor Project
Faculty:	Faculty of Nuclear Sciences and Physical Engineering (FNSPE)
Department:	Department of Mathematics
Supervisor:	Ing. Jakub Klinkovský, Ph.D.
Supervisor's affiliation:	FNSPE CTU in Prague

II. ASSESSMENT OF CRITERIA

Work assignment and topic motivation	average
<i>Assess how demanding the assigned topic is. Brief introductory word on motivation for choosing the topic.</i>	
The motivation for this assignment was to start up a new collaboration with a partner institution, the Institute of Biotechnology of the Czech Academy of Sciences. Specifically, the goal was to develop a web UI for advanced searching in the MBDB project. It was a completely new topic for myself as well as the student and getting familiar with the project and existing code was particularly difficult. Overall I assess the difficulty of the Bachelor project as average, because most difficulties were organizational rather than technical.	
Fulfilling the assignment	fulfilled
<i>Consider whether the work submitted meets the assignment topic. Comment, if necessary, on items of the assignment not fully answered, or mention whether the scope of the assignment has been broadened. If student failed to fully treat the assigned topic, try to assess the importance, impact and/or the reasons for failings.</i>	
The submitted work fulfils all requirements of the assignment. Thanks to frequent consulting with the partner institution, requirements were further refined according to the needs of the MBDB project.	
Student's effort and independent approach to the topic solution	excellent
<i>Assess whether student displayed constant effort while investigating the problem, whether they regularly consulted the issues and whether they attended consultations well prepared. Assess student's creativity and independence.</i>	
During the entire year working on the project, the student attended frequent meetings either with myself or with our consultants from IBT, often he had even multiple meetings per week. This is to demonstrate the effort, not lack of independence. All solutions presented in the thesis were developed independently, based on the feedback acquired during the meetings which were required due to the nature of the project.	
Professional standard	excellent
<i>Give your opinion on the professional standard of the work, application of course knowledge, references, and data from student's practice.</i>	
Successful completion of the project required using modern tools, software development techniques and adapting to conventions established within MBDB. The solution developed by the student meets high quality standards and is prepared for integration with other MBDB components in the final product.	

Level of formality and of the language used

excellent

Assess the use of scientific formalism, the typography and language of the work.

The thesis is written in a professional English with high attention to details and accurate formulations. The text is well structured and contains almost not grammatical and typographical errors.

Choice of references, citation correctness

excellent

Give your opinion on student's effort in utilizing references in their investigation. Characterize the choice of references and say whether all relevant sources were utilized. Verify whether all resource facts were properly distinguished from student's own findings and results, whether there was no breach of citation ethics, and whether all reference citations are complete and agree with the citation usage and standards.

Due to the nature of the project, it was difficult to find suitable sources among scientific publications and books. The documentation for MBDB is also still work in progress. All cited sources are available online and relevant for the thesis. The citation style follows common conventions.

Further comments and assessment

Give your opinion on the quality of the main results obtained in the work, e.g. on the level of quality of theoretical results, or the applicability of the engineering and programming outputs of the solutions obtained, on publication activity, experimental skills, etc.

The code developed by the student was refined several times in the course of the project and its quality undoubtedly increased towards the high quality standards established in the MBDB project.

III. OVERALL ASSESSMENT AND SUGGESTED GRADE

Summarize all aspects of the work most influential for the overall assessment. If adequate, write questions to be answered by student during the defence of their work before the board.

Overall I am very satisfied with the student's attitude to work, gradual progress during the year, as well as the final result.

Suggested grade: **A - excellent**

Date: Aug 17, 2024

Signature:

