FIT: Exam Announcement Winter Semester 2021/2022

Forestry data structures and spatial data models

Examination task (announced on January 24th, 2022)

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Submission form:	**work report (minimum: 3 pages) uploaded as PDF in the** _Forestry data structures_ **learning room on moodle via the folder** _Exam submissions_ **behind the tile** _Examination_
Submission deadline:	**February 18th, 2022 at midnight**

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Goal:

The goal of this work report is

- to develop a database structure for the data stored in the data table _Datatable_Exam.xlsx_ and to visualize the final result in a corresponding entity-relationship-diagram

- to document and describe precisely the steps of the work process (e.g. definition of data scales and data types, definition of entities, definition of relationships and relationships type) following the approach of database normalization

- to exemplarily demonstrate the functionality of the developed database by providing an appropriate SQL statement

- to create a document (pdf) as your final result (including tables and figures and following the scientific writing principles described at the end)

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Data & Software:

Students are free to use any appropriate software for the ERD. No "real" database needs to be configured!

The data required to conduct the task is available in the zipped folder _FDS_exam_data_ and consist of an excel file and the exam announcement. Part of the excel file is a data table containing the values and a meta information sheet containing additional information about the features. For some features no data have been entered by now. However, also these features are to be considered in the final database structure!

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Remark:

Below you find **an example** of how to structure and organise the work report. **Consider also table headings and figure captions in your final paper!**

    1   Introduction and Aim _(e.g. goal of the work report, advantages and purpose of databases)_

2 Material & Methods *(include as much sub-sections as necessary; e.g. data and software, working steps, approach)*

3 Results *(present the results in sub-sections; e.g. results of working steps)*

4 Discussion *(interpretation and evaluation of the results; e.g. suitability of the selected approach)*

5 References

Good luck & much success ☺
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Guidance for scientific writing:

1) General Formalities

- **Correct orthography and punctuation** have to be used; numerous spelling mistakes and unclear sentences lead to downgrading of the work.
- A **factual style** and no colloquial language are to be used.
- An electronic version as a pdf file has to be submitted **to the respective supervisor / lecturer the latest at the official deadline (end of the examination period).**
- **Figures and tables** have to be included in the text close to the corresponding passage. It is important to note that they can only support an argumentation, not replace it, i.e. an uncommented figure is rather detrimental than helpful. Figures and tables have to be titled and serially numbered. Figure captions and table headings are used! A list of figures and tables is **not** necessary.

2) Structure of the report

The report should have the following **structure**:
- Title page (Name, course, data; **no** list of content necessary)
- Text: The text should follow a **general IMRaD structure** (Introduction, Material & Methods, Results & Discussion). The introduction should stress the significance of the question, establish a classification or demarcation of the topic and present a synopsis of the thoughts developed in the following chapters.
- Reference list: The reference list has to be complete and the **common APA citation style** should be applied (Inform yourself here: https://www.scribbr.com/category/citing-sources/). Any type of plagiarism needs to be avoided and might lead to downgrading of the work!

"Plagiarism is presenting someone else's work or ideas as your own, with or without their consent, by incorporating it into your work without full acknowledgement. All published and unpublished material, whether in manuscript, printed or electronic form, is covered under this definition. Plagiarism may be intentional or reckless, or unintentional. Under the regulations for examinations, intentional or reckless plagiarism is a disciplinary offence."

Oxford University. (2021, September 24). Plagiarism. Oxford University. https://www.ox.ac.uk/students/academic/guidance/skills/plagiarism

3) Formatting of the term paper

Authors are free to define the format of their written work independently. In general, the following rules should be respected:

- Page set up (e.g. margins, page numbers) and text format (e.g. line spacing, font type text body, font type headlines, font type figure captions and table headings) should be defined once and applied **consistently** throughout the text! It is recommended to use at least 1.3 rows as line spacing and page margins of at least 2.5 cm (top, right, left) and 2.0 cm (bottom).
- In addition, the structure has to be **consistent**, i.e. each level has to include at least two subordinate levels (e.g., '2. section title' must be followed by at least '2.1 subsection title one' and '2.2. subsection title two'). As a rule of thumb, the text under each level of structuring should be at least half a page long, but should preferably not exceed three pages.