Questions and Answers concerning project task in Advanced Management of Data 2021 (as of 2021-01-07):

Q: Why don't you answer my email and just refer to this file?

A: To give all students exactly the same information. And I don't like to write everything again. And I'm too lazy to copy the parts I just wrote for you into your email. And I'd like to spread the word about the existence of this file.

Exam in general:

Q: Do I need to register for this exam?

A: If Advanced Management of Data is part of your Studienordnung (module handbook), you should have registered at the central examination office through SB-Service last year. If you forgot, you could still do a late registration, but you can also just take the exam. Whoever submits a project task solution and gives a presentation will get a mark.

Q: How to get the mark applied as a replacement for Datenbanken und Objektorientierung?

A: https://www.tu-chemnitz.de/informatik/DVS/lehre/amd\_exam.php.en

Q: What if I don't finish my project in time or just don't like to take the exam anymore?

A: If you registered for this exam at the central examination office (e.g. through SB-Service), you should deregister (to avoid failing for not taking the exam - you could withdraw the mark, but this might be more afford than just deregistering). Beside from this, you don't need to do anything. I don't need a deregistration message from you or something like this, as I don't care, if you don't submit something (from my point of view, it is like you have not been there this semester - except for that I answer your questions).

Q: When will be the next examination on AMD after this one?

A: Next year? There should be an exam on AMD in WS 2021/2022, but perhaps there will be another one during the SS 2021. Details about exam modalities (regular written exam or project task) and dates cannot be given now, so just try to solve the project task now.

Q: May I take the exam in a different language than English?

A: Yes, also German is supported (term paper, presentation, code comments, ...).

Task in general:

Q: What is the task?

A: Read the PDF.

Q: I don't understand the task. What should I do?

A: Read it again. If necessary, use a translation service to some other language, you understand better. Read through this Questions and Answers. If you still have questions, ask me, so I can extend this file.

Q: Would you please solve subtask X for me?

A: No. If you have problems, understanding some of my formulation, I will try to give you hints in this file to make it clear. But if you just don't know, what I'm writing about, then RTFM (in science this is called research).

Q: There is only one task. Should all students solve the same?

A: Yes.

Q: Why did you select this task?

A: It covers quite a lot of the content of this course, that is presented in the lecture slides. It is also directly related to these things, that we are/were doing in the exercises. The scenario is not as important and hasn't been my idea.

Q: I don't like the task. Could I do something different?

A: Perhaps. If you send me a task description for your own task, which is comparable to my task, we could talk about this. But I won't promise anything. Basically, the scenario can be exchanges easily, but some requirements (like most program logic in PL/pgSQL) are fixed.

Q: Is group work possible and is there something special?

A: Yes, up to two persons are allowed to work together, but there are no additional subtasks to solve and no additional pages to be written.

Q: Do we have to tell in you before about our group members?

A: No, just make sure both of you are mentioned at the front page of your term paper.

Q: Is it possible to work in a group with Marc?

A: No, he already had to reject too many offers, so try to find somebody else. You could use the exercises or the forum in OPAL.

Task in detail:

Q: Is it really mandatory to implement all the logics in the database or could something be implemented by using the other programming language in the frontend (2.2.1.3)?

A: You should really try to implement as much as possible in the database. If I discover, that your frontend does too much work, I will reduce your points (and also your mark).

Q: How am I supposed to present any information in the frontend (2.2.2)?

A: However you like. The task description is written in a way, to give you much space to be creative.

Q: What about UI and UX (2.2.2)?

A: The user interface is required to solve the frontend tasks, but it can be kept minimalist, as I forgot to include the requirements about the design, so the user experience doesn't need to be taken into account.

Q: What am I supposed to write about the distributes databases (2.3.6)?

A: Read the lecture slides from Dr. Seifert regarding distributed databases and understand them (perhaps use some other sources, too). Ask yourself, whether the usage of a distributed database would be an option for your created program or under which conditions this might become useful and how this could be used and also how the transformation process from single to distributed database would look like. Write down your thoughts in a structured way. The limit of 3 different scenarios is just there to restrict those pedantic students, who want to be exact and cover all cases.

Project and submission:

Q: How do you grade the project?

A: Each part of your project will be one third of your final mark. The parts are: program, term paper and presentation. The program is graded with regard to the different requirements stated as sub-tasks. You get some points if you implement a certain thing and don't get it, if you miss something. Same for the term paper and the presentation. For presentation also your overall presentation style will be rated and how well you are presenting the different parts.

Q: What do I have to submit until the end of the deadline?

A: Everything. The ZIP-file with your program code and the term paper.

Q: Is the submission of the database required?

A: The database itself is not required, but a script to initialize the database, as this should contain most of your program logic and data.

Q: Do we need a submission for each member of a group?

A: No. Only one group member has to submit your project and term paper. It counts for both of you.

Q: Where do I have to submit?

A: I prepared something in OPAL.

Q: How to register to the OPAL group?

A: There should be an automatic registration by entering the course. If you are allowed to submit something in OPAL, everything should be fine (the system will inform you, what you are able to do). If you have problems, please tell me (but not on 11th February at 17:59).

Q: Why do you limit the submission filesize to 10 MB?

A: To prevent you to include more than 100 MB of JS packages from NPM in your submission (this happened several times in the past years). I could lower the limit to 1 MB or even 100 KB, but some students prefer to have fancy graphics in high resolution in their projects, so I decided that 10 MB should be enough.

Q: Could I get an extension?

A: Late submissions will be accepted, but your mark will reduce as described in the task description slides. This may be different if you bring a sick certificate, but as the presentations will be right after the submission deadline, I can't extend for too long.

Q: Will there be any feedback after submission?

A: Most probably, no. If you think you will fail in some part, you wouldn't submit anything, would you?

Pizza data:

Q: I have no idea about pizzas, ingredients, prices and regional provenance. Where should I search?

A: The internet. There are lots of pizza delivery service websites. But you can think something up, too.

Programming part:

Q: Which programming language/database/framework should/may I use?

A: There is only one restriction: it has to be able to talk to your PostgreSQL database. Otherwise I don't care and don't want to restrict you in any way. You may use all tools and frameworks and so an, that you think are helpful to solve the task and I don't care whether the frontend will be a website, a desktop app or even a command line program. But keep the filesize limit of the final submission in mind. Of course, there are some technologies, which shouldn't be used, because they are outdated and not supported anymore (like Flash), but this is a different matter and you may still use them, but should give a really good reason for choosing them in your term paper and your presentation.

Q: How to get a PostgreSQL database?

A: There is some information in the slides for exercise 5.

Q: How to connect to a PostgreSQL database with a programming language?

A: Most programming languages offer access to some low level native API or higher level abstraction API to access databases and also to PostgreSQL. As this DBMS exists for more than 30 years and is a widely used open source database, there should be support in most general purpose programming languages nowadays (but test it, before you start coding your frontend). For more information I provided the first exercise from Datenbanken und Web-Techniken, which gives coding examples for PHP and C in the subfolder next to this file.

Q: I don't like to use other people's work. Will this be a problem?

A: Most probably, but I tried to reduce your problem. You have to use a PostgreSQL database and write your program in PL/pgSQL and those have been invented by other people. For all other cases: you may use your own programming language and your own frameworks. But then documentation might become longer, if you didn't publish your work before. A good idea might be to choose at least an existing programming language for the frontend.

Q: May I use package manager X?

A: Yes, it is a good idea, to just give references to existing packages instead of including them with your submission. Remember the filesize limit of your submission. But this should be done in a proper way, so that the packages can be retrieved easily.

Q: Which infrastructure may be supposed to exist?

A: A ten years old PC with some current OS and build tools and perhaps a current web browser (as nowadays so many things are web). If you need something special, you should mention this in your documentation (if your program only runs on OS/2 Warp during full moon - although you should try to be as cross-plattform-compatible as possible). Also give minimum and maximum versions of your runtime environment or programming languages. Suppose we are able to get a standard installation running on our systems. Again, if you need special modules or something, you should mention this. Open source or at least freely available tools are preferred, but we might also find a way to test your program, if you use some exotic things.

Term paper:

Q: How many pages are required for groups?

A: 12. It is the same like singles, but you write only one term paper together.

Q: Is there any specification for font size and line spacing in the term paper?

A: Just use default values. It shouldn't be too big or too small.

Q: Is scientific writing required?

A: No. This is more like a project documentation. I don't require you to cite scientific papers, but you should at least give reference to used sources. This means it is still forbidden to copy and paste something from Wikipedia without giving references.

Q: Which citation style is required?

A: Whatever you prefer. But you should select one and use it all the time. Mixing citation styles always looks like you did just copy and paste from other documents.

Q: May I use code fragments in my term paper?

A: Text shouldn't consist of code, but small parts may be presented, if you think this is really necessary to explain something.

Presentation:

Q: I won't be available at some of these days, that are planned for presentation. Could I get a timeslot at one of the other days?

A: Final presentation dates and timeslots will be announced after submission (when I know how many slots have to be offered). Just be fast enough to fetch a suitable timeslot then. If you cannot realize any of these (but only for good reasons), write me an email, so we can find a solution.

Q: What will I need for presentation?

A: A computer with your program running. If you like, you may also use presentation slides running on your computer. In case of online presentation in BigBlueButton, you need a computer with camera, microphone and sufficient internet connection.

Q: How long may I speak?

A: 10 Minutes. Please stay in time, as there won't be much time between presentations.

Q: Should I send my slides in before (if I have some)?

A: No, this is not necessary. Just bring them with you (if you have some).

Q: Can I record my presentation and just play the video?

A: No. The presentation should be given live, but it is allowed to record your program demonstration and play this video during the presentation. But keep in mind to cover all functionality and all requirements. BigBlueButton has the option to play a shared video from the following video platforms: YouTube, Vimeo, Instructure Media (previously called Arc), Twitch and Daily Motion, Panopto. It should also be possible to use direct links to .mp4 files available in the internet.

Q: Will there be an exam after presentation?

A: Actually, your presentation is kind of an exam, but afterwards there will be about five minutes of questions regarding your project, your presentation and your term paper. I could also ask you for things from the lecture slides, but almost certainly there won't be time for this.