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Video Studio Booking Website

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Video Studio Booking Website

At the Leuphana University a new video studio opened at the beginning of 2023. Students can film interviews, record podcasts or edit their work for post production there. It is located in the library and can be booked via mail at the moment. I´m working at the library and booked the room multiple times and loved the quiet atmosphere there so much for working on creative projects. But there is one thing that is quite complicated: the process of booking of the studio. Students have to send an email request and wait for a response. If the room is already booked for the desired time slot there are a lot of mails sent back and forth, to find a suiting time slot, where the room is not occupied and the student also has time. And for some students the rescheduling can be difficult, considering that some have to work or commute to Lüneburg.

An idea to solve that problem and make the life of students who want to work creatively, without having to communicate and trying to find a time slot via lots of mails, would be a website where they see immediately the free time slots and can book them directly. It is a similar approach to movie theater bookings (Cinemaxx vue n.d.). People can see which seats are still empty, select as many as they want and then by putting in some personal data, reserve them. Another website that inspired the idea, was the German website https://www.doctolib.de/ (Doctolib n.d.), where people can book their doctors' appointments via their smartphones. Free time slots are being uploaded to the website and the users can select them. These kinds of websites not only make booking for the users much easier, but also for the staff that has to manage to booking request. There is no back and forth between them, and users can book till very last minute or book in much advance, such as it suits them best.

The idea was that the time slots that could be selected are the same time slots of the Leuphana time table, so that students can book one slot for example, if they have a free period. There is also the option to select more than one time slot, in which case the 30 minutes in between the time slots can also be used by them and are added to their slots.

The hardest part coding for me was definitely the calendar with the option to be able to select multiple slots, make it visible to the user and give out a sorted list of the time slots that were selected. I spend a good amount of time trying step by step to use what we learned and apply it to my problem. It helped to write down, what should be the end result, that I wanted to have and then the easiest way I could achieve it with my current knowledge. I had to step back a lot and simplify my ideas into tiny steps. For example, to change the color of the buttons, I first had to implement all the buttons into one single list and not create them button by button. I

realized throughout this process that coding needs a good deal of creative thinking, how to get to what I want to be displayed at the end with simple and creative steps. It's a different way of thinking to reach that point of developing an idea in order to be able to implement it in python.

For the creation of the timetable, I had to search for some coding principles, that we didn´t cover in class, to be able to implement my ideas, the way I imagined. I only applied it on ideas, that are not important for the overall functionality of the website, but are only features, that make the website look cleaner. For example, a tiny aspect I added, is the option, that the list of the selected timeslots should be sorted by first: the day, and second: the time. I used the function sorted and split for this to work, for which I used multiple sources (Dalke & Hettinger, 2023) (Programiz n.d.) (W3Schools n.d.).

The other feature that I added this way is the message box in the personal data page with the warning to fill out the names and email (Python 2023). For the real operation of the website it would be absolutely crucial to have that condition, since this is the data, the staff needs, to make a real appointment and confirm it to them per mail. The only thing that is solved unfavorably is that the message box destroys what the user entered before and has to enter it again. In a future version this should be solved differently to have an even better user experience and the user not having to input their data again.

Moreover, there are still some things that I would like to add to this idea, but wasn't able with my current programming knowledge. One thing that falls under this category is the use of a database, which stores the personal and booking data. It has to be retrievable, so that the already booked slots will be colored red and are not clickable for the next user. It also has to be available for the staff, to check who booked the studio and for how many time slots. For data protection reasons the calendar that is visible for the general public on the website should of course not display the whole data of the database, but only which slots were selected. Only the staff should be able to view and edit all the data of the database, for example to delete a booking for a user, if they want to cancel their booking. Since the usage of a database with these two options was not part of the lectures so far, I just put in the legend that red buttons would signal a booked time slot.

One thing I was able to update since the first submission of the Techbasics 1 exam, was displaying the current week. It shows the calendar week with the date of Monday as the starting point of each week for better understanding, since students don´t always know which calendar week is the current one, but with the help of the date, they will probably know better. There is also a new statement implemented that the user can not see weeks that have already passed,

only the current week and the ones that follow. With the start of a new year the calendar week is reset to 1, while the start date of the week Monday keeps going. That way the calendar is not limited to one year, but can be used in the future as well, without having to reset it.

Another thing I updated in this version is the design. It was made friendlier and lighter to help the user make everything more visible and soothing like the atmosphere of the studio itself. Another image at the end was also inserted to have a nice closing page to remember.

In the future the website could be integrated into the official Leuphana website. That way students don't even have to search for it, but when they search the video studio they immediately get a link to the booking website. The video studio booking website can therefore encourage students to work creatively in the studio on different projects. Students are not so easily discouraged, by the fact that a lot of emails have to be sent back and forth, which can mean a rescheduling in most of the times for the students. There are no times where the students have to wait for a response. In addition, they can even book the studio last minute with the website, which was not possible before with the booking via email.

The GUI of the website is created to be as user friendly as possible. Mostly everything is in relative sizes, so it can be expanded and minimized to most of the computer screens. It is easy to understand without the need of an introduction or a help page and can be closed at any time by pressing the escape key. There are buttons, which have an image as a label (Sharma 2023), to be found more easily by the users and have a neater look on the page. Another thing, that I added is where on the library card the library number can be found. Before creating the website, I talked to one of the staff members of the video studio and asked, what would be important for the booking website. She told me that users have to enter their library number, to be able to check out the key for the studio. Otherwise, they have to fill in their address and birthday, which can be the fact, if for example an academic wants to book the studio, which is also possible, but who has no library card. She then told me, that a lot of students, don't know which of the two numbers on the card is the library number, they need for the booking. That's why I added this information as well.

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I declare that the submitted academic paper has been written independently and no sources or aids other than those indicated have been used. All contents taken from the works of third parties or (my own work) which have been taken verbatim or in spirit from other sources have been marked as such appropriately and the respective source of the information has been clearly identified with precise bibliographical references. I have not submitted this paper before to an examining authority either in Germany or abroad.

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