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CS 300

Project Summary

For this project I used JavaSwing and a local mySQL database. While I have some experience with developing GUIs, this was my first time connecting a GUI with a database. This is also the most involved Java program that I have worked on thus far. I had never used a database before so it was an interesting experience and good way to get familiar with using databases.

My goal was to create three separate groups inside of my program. The GUI package includes all of the code for generating the various GUI components for the TaskMaster. Then I created another group for the models and the database code. I wanted to have all of the connecting, disconnecting, and general interactions with the database in a separate class than the GUI classes. I lastly created a controller class that acted as a wrapper function for the database functions. This way when the GUI needed to trigger a load or save from the database, I could call the controller functions instead of the database functions. I also tried to use prepared statements when dealing with my database class. From my understanding this makes the application much more secure. I think I will continue to work on this project and attempt to make it more efficient and secure so I can actually use it as a task management application. Because this was my first time using a database, I feel like there were some compromises I had to make to the gui to ensure functionality with the database. For example I would like to change the way in which a user changes the topic category to be more user friendly and good looking.

For testing, I implemented various tests to ensure that the key functionality was working. This included creating a new log in, logging in with an existing log in, creating tasks, changing task categories, and loading/saving tasks to the database. I used MySQL workbench which made checking the various database behaviors very easy. I used this tool to confirm that tasks and user names were properly saved, modified, and deleted.

Overall I am happy with the program that I created and I look forward to continue working on it so I can create a robust and user friendly task management app that I can use in my actual life.