CS 499 Milestone Four

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The artifact used for this enhancement is a set of three java files created on April 28th, 2024 that were used to experiment with automatic testing. This is the third enhancement to this artifact, continuing from the previous enhancement which developed the data structure of the object classes. I chose to continue improving this artifact for the same reason as previously, because I believe that the best way to demonstrate my abilities is to continue following up on the previous enhancements to make a complete program. For this enhancement, I demonstrated my skill in databases by adding external data saving and export the information to MongoDB to be displayed on an interactive HTML page. All information on contacts, tasks, and appoints are saved to respective json files, which are exported. A few objects have been pre-created and saved to the files for easy testing. A flask backend is used to fetch the information from MongoDB and render the page using the index template. Additionally, this backend also sorts the appointments by date. The index file creates an interactive page which lets users select whether to display contacts, tasks, or, appointments using buttons. Contacts also has additional buttons for displaying all contacts or just customers or employees. Each of these lists also has a search bar to be able to search the list by ID.

With all of these enhancements I believe I have met all of the course outcomes I planned to meet in Module One. Since this is the final of the three enhancements, I have no updates on my outcome-coverage plans. This enhancement took the longest out of the three enhancements, as it required needing to code 3 different files to ensure everything worked. While the json saving and exporting went smoothly, I struggled with coding the application properly as I have not used Flask before. I believe I learned a lot about Flask as a result. I also had difficulty properly organizing the HTML to look clean during runtime. I ended up using trial and error to see what would finally ensure that head part of the content header was finally in the location that I wanted it to be in.