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MS3: *Trek* Test Plan

CS 3110: Data Structures and Functional Programming

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**Test Plan**

For our test suite, we decided to make test cases for the following: task.ml, taskList.ml, calendar.ml, and date.ml. These files make up the core of our backend development. We did not create a test suite for our frontend, as correctness was determined by the visual appearance of what the code produced. While we considered making tests for calDict.ml, many of the functions were standard list functions that we had also seen implementations of in the textbook. Our confidence was further confirmed when we used them to implement our other files and saw our expected results. Our primary strategy when creating test cases was to follow the black-box testing procedure: creating test cases based on our specifications. This was particularly useful for getting rid of obvious bugs in the backend. As our development progressed and we started noticing occasional errors when the frontend was utilizing our backend implementations, we decided to create glass box test cases that targeted multiple branches of a function. We believe that this latter approach allowed us to rigorously test the correctness of our system. While the initial black-box tests allowed us to catch most of the issues with our implementations, glass-box testing allowed us to catch the more nuanced errors and corner cases that we did not initially consider within our specifications.