

Manual Integration Test Report

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Team 3: Astronomicon

Introduction

This test document is to record our team's progress and process of testing as we integrated our front end and back end work on the project thus far. The main scope of this testing is to see if the communication between the front end and the servers is working, specifically:

- User input entered on front text boxes is passed to the back for calculations
- The back end server performs calculations on those user entered values and then returns the string needed to display the star map
- The labels will also need to be delivered for all relevant stars, planets, and other celestial bodies visible
 - The user's ability to toggle between maps will double check this to see that both were created.

Technologies used: React (Next.js), Axios API, Python,

Test Cases

For the following tests, we conducted them all during development and the testing method I would say best matches would be top-down testing. We focused on making sure that the connection between the server and the front end was established first by running hard coded inputs in the Axios post call. This was so we could establish if the entered value was making its

way into the proper inputs and used in the calculations. The test case data was for each input, being

- Time: 10:00PM
- Date: 01/05/2008
- Latitude: 34-52-11.44N
- Longitude: 86-58-29.82E

which we chose because we were able to find some images of the sky that could be used to confirm the accuracy of the map. This only took a few adjustments in making sure we were running our environments correctly for it to work smoothly. With confirmation that the data/numbers from the user in the front end could be sent to the back and create a map, we also double checked about the label status. The way it works is that in the back end there are two versions of the image created, one raw version that has just the stars and other visible celestial bodies, and then a 2nd version that displays the names associated with each celestial object.

Results/Conclusion

For the most part, for our application the testing was very simple and we had very little technical issues once the connections were set up. The heavy hitting testing of checking map accuracy and other things similar to that we thought would be much better suited for automated testing as opposed to doing it by hand. After getting this connection confirmed, along with the confirmation of both versions of the map being generated and toggleable from the front end button, we felt like we were in a good place for the manual testing.