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| Computer Science 112 Computer Science with Java IISpring, 2017 |  |

**Lab Report – Week *1* - *First Assignment***

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**Assignment Analysis and Design**

*We were tasked with creating a program that would read a list of states and information about said states (population and capitol city) into a primitive array, print out the array to the user’s screen and then conduct a search based on a user query. Input from the user was a single string query, while the file input was a pre-defined list of data. The output of the program consisted of printing out the list of states as seen in the data file and responding to the user’s query with matching information based on whatever state name was provided by the user. I imputed all of the file data into the state array using a single constructor. Based on the way this assignment was structured, I thought this was a more logical way to input data into the StateList object as the data within would not be modified over the course of the program after the file input processing. I also used a final int variable to indicate the maximum size the state array could support. While this step was pointless for the specifications of this assignment, it may be useful in the future if this code is reused and a larger array size to accommodate more data is needed. Only resources I used was The Java Platform API Specification:* [*http://docs.oracle.com/javase/8/docs/api/overview-summary.html*](http://docs.oracle.com/javase/8/docs/api/overview-summary.html)

*Project was short enough and so thoroughly explained by the professor that I did not think design documents were necessary. The lectures were enough for me to understand the problem*

**Assignment Code**

*Code is included with this file as a NetBeans project folder in compressed form*

**Assignment Testing**

*Ran the program multiple times to eliminate syntax errors then tested the user input with both expected and unexpected values to make sure my program was outputting relevant answers to the user query.*

**Assignment Evaluation**

*This project was mainly a review for me. I did learn some additional documentation guidelines as per the instructor’s directions but by and large I knew most of this information already. Only really struggled with using part of the primitive array instead of the entire thing, so using for-each loops to iterate through the StateList arrays was not possible. Otherwise this project went fairly smoothly for me and I enjoyed working on it, I think it was a good way to practice concepts involving OOP and Class re-usability. Hopefully I completed the project as per the instructor’s guidelines, which were very clear and thorough.*