

## Introduction

Chapters seven and eight dealt with the use of loops and arrays. Out of the many exercises provided by both chapters, four were chosen for this assignment. The first had the author draw a table that shows the variables given during the execution. The second exercise had the author understand and write down what three different programs do and their variables identity. The third exercise had the author examine a program and describe what it did, along with drawing a diagram to represent it. The final activity had the author write a method called `indexOfMax` that takes an array of integers and returns the index of the largest element. The majority of these assignments was to analyze given programs.

ID		Functional Requirements		Value	Stakeholder
FID001	I want to	Create a method named <code>indexOfMax</code>	so that	The developer could create a program.	Student developer
FID002	I want to	Be able to use an array of integers	So that	The developer could input into a condition.	Customer
FID003	I want to	Return the index of the largest element.	so that	The largest index is shown.	Teacher

## Analysis

The first part of the assignment had to do with drawing a table that shows the value of the variables given and defines the output of the program. The first part the author defined was variable `n`. This was done by asking the system to use `System.out.println(n)`, when ran, it printed out its value of 10. Variable `I` had given output values when the program ran. The output was

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also the given numbers when the program processed. The second part of the assignment was to understand and write out a sentence that described the methods given and define the fruit variables. By examining the expressions, some symbols helped glean its meaning. The use of simple expressions like \*, -, /, and + made understanding the process easier. Arrays were the main subject of the methods but in different forms and operations. The third exercise was to find the output of the given program, describe what `mus` does, and draw a stack diagram. While running the program, the output 30 came out. While analyzing `mus`, The author interpreted that `mus` was what calculated the elements of `zoo`. It was labeled in a public static `int` with an `int` array. Under it was the for loop with what was an addition operation of `fus` and `zoo`. The final exercise was the toughest part. Beginning with the creation of `indexOfMax`, the author had to create a program that took an array of integers and returned the largest element. FID002 was met by starting the array type and establishing it to `int` in the declaration. While using the inclination of `i++`, The variables were increasing and the condition checked if the value `i` was greater than the index of numbers, if not it returned the index.

## Conclusion

The exercises had a lot of code reading elements encased in it. Reading code and creating code are two different skills in itself. Chapters seven and eight were there to brush up on those skills. Personally, the book made this assignment a complete headache. First, the author hadn't eaten till an hour ago, so that probably helped the all-day brain freeze. The author also had a hard time understanding the questions overall and had to use google to help them out quite a bit. They will be doing some extra research on loops and arrays later when they are not so tired, but for now, the assignment will rest.

[https://github.com/DiannaToledoSG/dt\\_ch7and8\\_ex](https://github.com/DiannaToledoSG/dt_ch7and8_ex)