Chapter Two Exercises

Variables and Operators

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Description: Chapter 2 Exercises with Java

Introduction

Chapter two of Think Java explained the use of variables and operators in code. In these

exercises, the author has created two different programs. The first one is using string

concatenation to display today's date in both the American format and the European format with

the use of variables. The second program was to use arithmetic operators to display different

amounts of time. The separate parts included; turning the time into seconds, display the seconds

since midnight, print the percentage of the day that has passed, and display the amount of time it

took since beginning the assignment. This will be done using the knowledge of both variables

and the operators in order to create functional programs to complete the tasks.

ID		Functional Requirements		Value	Stakeholder
FID001	I want to	Create a list of variables with values using the day, date, month, and year.	so that	the student can use them in different strings	student
FID002	I want to	Print out the American and European format of time using the variables.	So that	the student developer can get an A	instructor
FID003	I want to	compile and run the program successfully.	so that	the instructor can see the time stamps in both the American and European formats as strings in console	student
FID004	I want to	Create a list of variables for the time using hour, minute, and second.	so that	the student can use them in different equations.	student

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FID005	I want to	Create equations to show the time in seconds, the time since midnight in seconds, the time left in the day, the percentage of the day completed, and the time it took to finish the assignment.	so that	the student developer can get an A	instructor
FID006	I want to	compile and run the program successfully.	so that	So the instructor could see the time in seconds, the time since midnight in seconds, the time left in the day, the percentage of the day completed, and the time it took to finish the assignment.	student

Analysis

During the creation of both the programs, it was decided to use these two main concepts (VARIABLE TYPE variable name;) and (variable name= variable value;). By identifying the variables in this fashion, it was possible to create multiple lines and equations without re-typing the numbers or characters multiple times. The common operators used in these programs were +, -, /, and * for the use of equations. For example, in the Time.java program for FID005 ((22 – hour) * 3600)) was used to calculate the current time since midnight in seconds. Variables and operators were used throughout the making of both programs to complete the tasks.

Conclusion

While running the Date.java program it is expected to see " American Format }Tuesday, October 15, 2019 } European Format} Tuesday 15 October 15 2019",and the Time.java program should print "Since Midnight 41550.0 seconds } Remaining in the Day 55950.0 seconds }Percent 48.09027777777778% }I was done 1.0 hour, 0.0 minutes, and 0.0 seconds later." Both programs

utilize the use of variables and operators to conduct the intended messages. Through out the

programs the author was capable to figure out the language of java to operate the functions

correctly. While struggling to grasp the idea of the coding language the author learned the

concept on their own with a more proficient touch for the future. These exercises were meant to

get the users better fitted with the idea of java and some of the basic statements using variables

and operators. In the creation of this assignment there was one variable that the author didn't

realize until now, that there was a necessity for an APA style cover page. Now with the

newfound knowledge, today there has been added one.

https://github.com/DiannaToledoSG/dt_ch2_ex2and3