

CMSC-140 Project #1

Test Plan Table

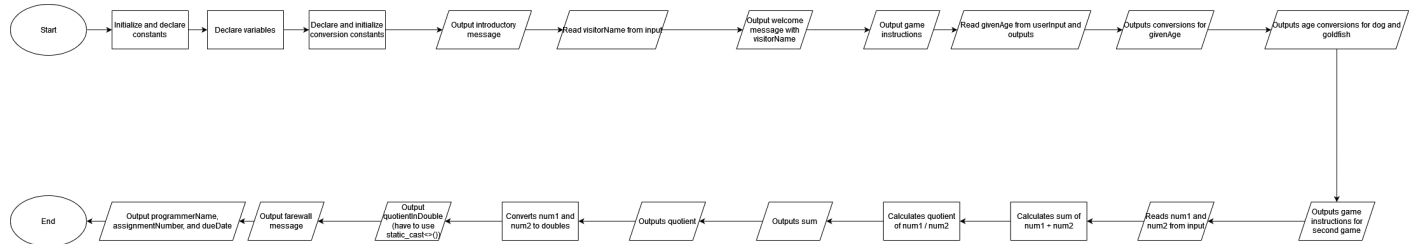
Test Case #	Input	Expected Output	Actual Output	Did the test pass?
1	2 4 5	24 720 17280 1036800 62208000 14 10 9 0 .8	<pre> ***** Robot Prototype Scripting ***** Hello, welcome to Montgomery College! My name is Nao. May I have your name? Nicholas Nguyen Nice to have you with us today, Nicholas Nguyen! Let me impress you with a small game. Give me the age of an important person or pet to you. Please give me only a number: 2 You have entered 2. If this is for a person, the age can be expressed as: 2 or 24 months. or 720 days. or 17520 hours. or 1051200 minutes. or 63072000 seconds. If this is for a dog, it is 14 years old in human age. If this is for a goldfish, it is 10 years old in human age. Let's play another game, Nicholas Nguyen. Give me a whole number. 4 Very well. Give me another whole number. 5 Using the operator '*' in C++, the result of 4 * 5 is 9. Using the operator '/' in C++, the result of 4 / 5 is 0. However, the result of 4 / 5 is about 0.8. Thank you for testing my program! PROGRAMMER: Nicholas Nguyen CMSC140 Common Project 1 Due Date: February 14, 2023 </pre>	According to my calculations, it did pass since the calculations for months, days, and hours in 2 years is inaccurate.
2	8 2 3	96 2880 70080 4204800 252288000	<pre> ***** Robot Prototype Scripting ***** Hello, welcome to Montgomery College! My name is Nao. May I have your name? Nicholas Nguyen Nice to have you with us today, Nicholas Nguyen! Let me impress you with a small game. Give me the age of an important person or pet to you. Please give me only a number: 8 You have entered 8. If this is for a person, the age can be expressed as: 8 or 96 months. or 2880 days. or 70080 hours. or 4204800 minutes. or 252288000 seconds. If this is for a dog, it is 56 years old in human age. If this is for a goldfish, it is 40 years old in human age. Let's play another game, Nicholas Nguyen. Give me a whole number. 2 Very well. Give me another whole number. 3 Using the operator '*' in C++, the result of 2 * 3 is 5. Using the operator '/' in C++, the result of 2 / 3 is 0. However, the result of 2 / 3 is about 0.666667. Thank you for testing my program! PROGRAMMER: Nicholas Nguyen CMSC140 Common Project 1 Due Date: February 14, 2023 </pre>	Yes, it did pass the test.

Pseudocode

1. Declare and initialize constants
2. Declare variables
3. Declare and initialize conversion constants
4. Output introductory message
5. Read visitorName from user input
6. Output welcome message using visitorName
7. Output game instructions
8. Read givenAge from user input
9. Output givenAge
10. Output conversions of givenAge
11. Output age conversions for a dog and a goldfish
12. Output game instructions for the second game
13. Read num1 from user input
14. Read num2 from user input
15. Calculate sum = num1 + num2
16. Calculate quotient = num1 / num2
17. Output sum using operator '+'
18. Output quotient using operator '/'

19. Convert num1 and num2 to doubles
20. Calculate quotientInDouble = num1_double / num2_double
21. Output quotientInDouble
22. Output farewell message
23. Output programmerName, assignmentNumber, and dueDate
24. End the program

Flowchart



Questions to Answer

🔗 Write about your Learning Experience, highlighting your lessons learned and learning experience from working on this project.

My learning experience from working on this project was pretty nice - I got to learn more about things that I've been curious about. So far, I already see things that transfer over from Java and, like Professor McGowan has told me, a lot of topics learned in coding are relative and are universal across all coding languages.

🔗 What have you learned?

From this project, I have learned how to use the `cin` and `cout` statements to display and prompt for things in the console. I also learned how to more effectively use operators, variables, and when necessary, constants.

🔗 What did you struggle with?

I honestly didn't really struggle with anything this project; however, while nothing stuck out to me as difficult, a lot of the coding was a bit repetitive and tedious, a lot of `cout` and `cin` statements taking up the majority of the project.

🔗 What would you do differently on your next project?

I may try out writing the pseudocode and doing the flowchart first before writing the code. I didn't do it this time since it's something I don't typically do (and actually never really did in my AP Java class last year). Though I do consider myself pretty good at learning visually, I tend to be pretty eager when jumping into things and don't tend to plan things out beforehand. While I don't think pseudocode and flowcharts will help me much with planning out my code, I will still give it a try next project I do.

🔗 What parts of this assignment were you successful with, and what parts (if any) were you not successful with?

I was successful with basically the entire assignment, though I was slightly confused with the test cases since they don't seem to match up with accurate conversions.

🔗 Provide any additional resources/links/videos you used to while working on this assignment/project.

N/A.