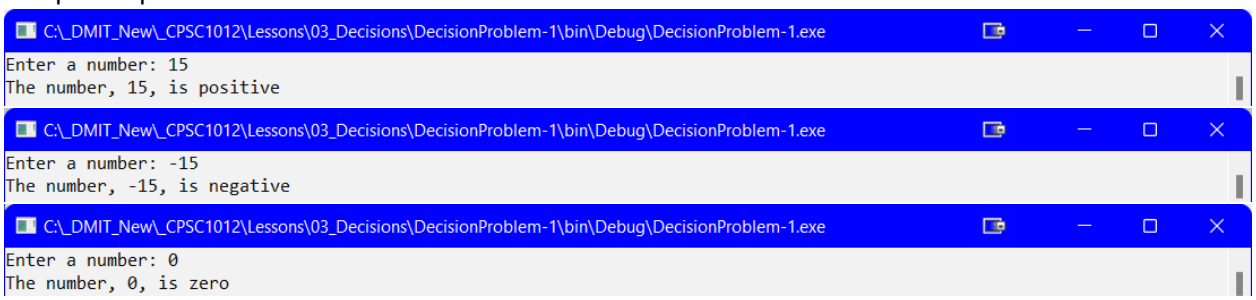
Decision Making Problems

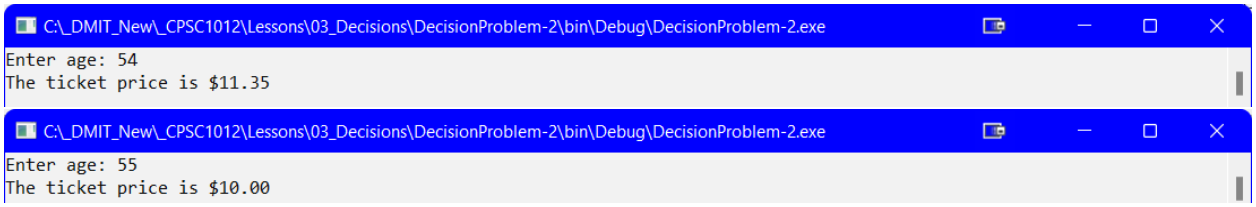
Provide solutions to each of the problems below.

1. Write a program that will prompt for a number and display “positive” if it is greater than zero, “negative” if it is less than zero, and “zero” if it is equal to zero.
   Sample output:



2. Write a program that will determine the cost of admission for a theatre. The price of admission is based on the age of the customer. Your program should prompt the user for their age and then display the correct admission amount.
   - Children 6 and under = FREE ($0.00)
   - Students 7 to 17 = $9.80
   - Adults 18 to 54 = $11.35
   - Seniors 55+ = $10.00

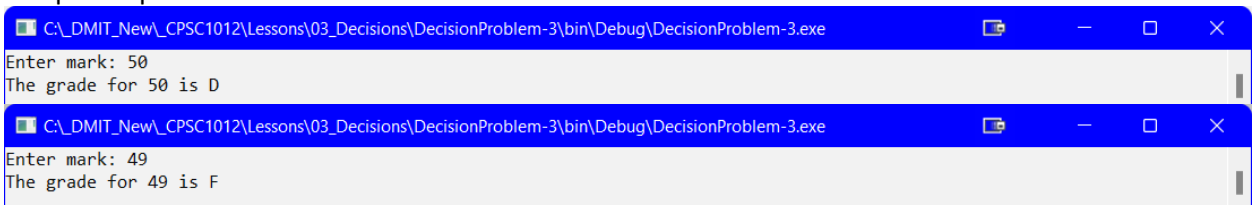
   Sample output:



3. Write a program that will prompt the user for a student’s name and their mark. The program should display the student’s name along with a letter grade calculated using the following table:

Mark	Grade
100 - 90	A
89 - 80	B
79 - 70	C
69 - 50	D
49 - 0	F

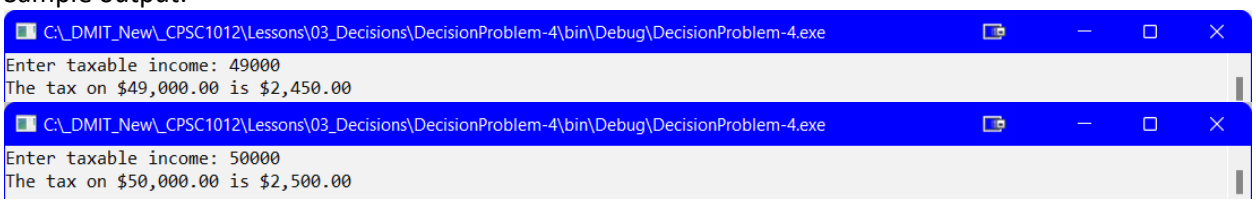
   Sample output:



4. Write a program that will compute the income tax due on a taxable income entered by the user. Use the following table to determine the tax owed:

Taxable Income	Tax Due
Up to $50,000	$0 + 5% of amount over $0
Up to $100,000	$2,500 + 7% of amount over $50,000
$100,00 and over	$6,000 + 9% of amount over $100,000

Sample output:



5. Write a program that asks for the names of three runners and the time, in minutes, it took each of them to finish a race. The program should display the names of the runners in the order that they finished. [***HINT**: View the video **11 Gold-Silver-Bronze***]

Sample output: