Lab 01 OOP Report

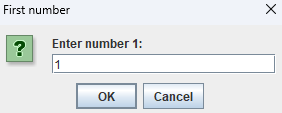
Full name: Đỗ Thành Trung

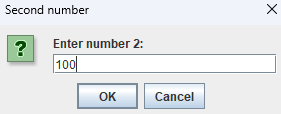
Student ID:202416833

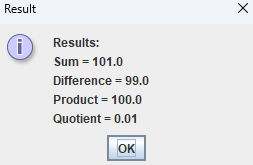
# **Exercises**

2.2.5: Arithmetic Operations

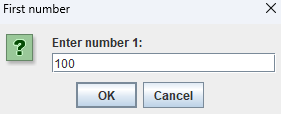
Case 1: Normal case

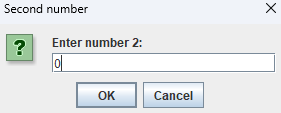


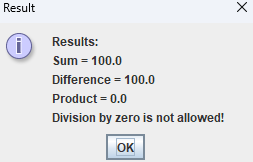




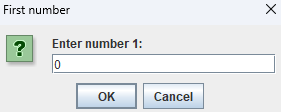
Case 2: The divisor is zero

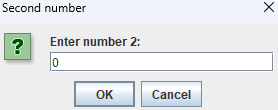


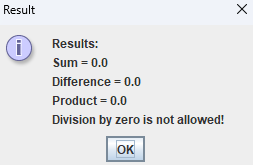




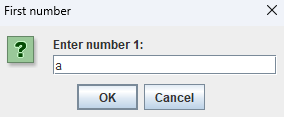
Case 3: Both numbers are zero

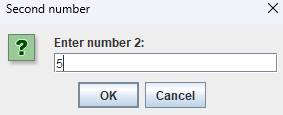


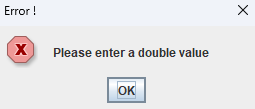




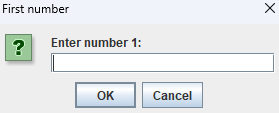
Case 4: Either of the two input is non-numeric

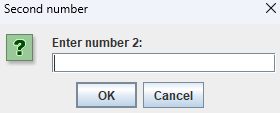


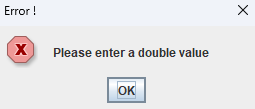




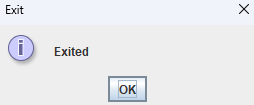
Case 5: Empty input





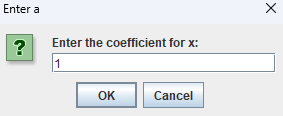


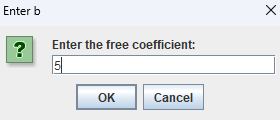
Case 6: User cancels the input

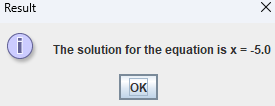


# 2.2.6.1: Linear equation solving

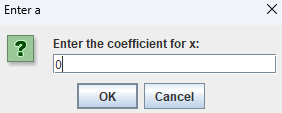
# Case 1: Normal case

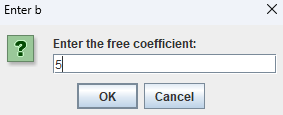


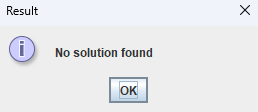




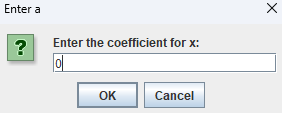
Case 2: a = 0, b != 0

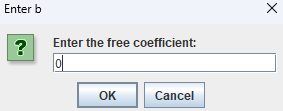


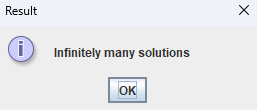




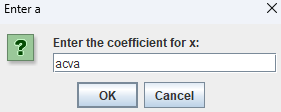
Case 3: a = 0, b = 0

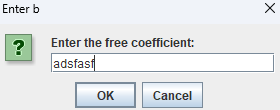


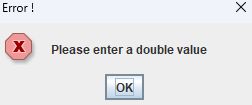




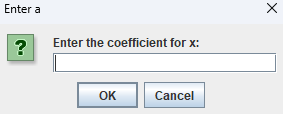
Case 4: The input is non-numeric

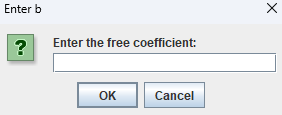


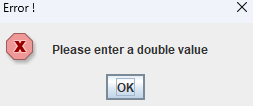




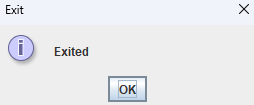
Case 5: Empty input





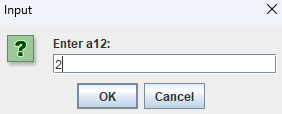
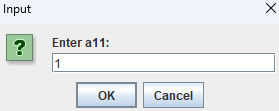


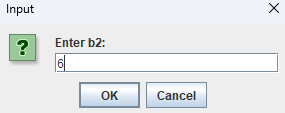
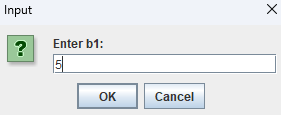
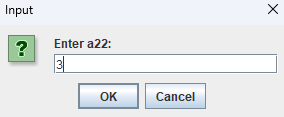
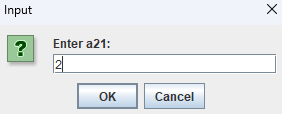
Case 6: User cancels the input

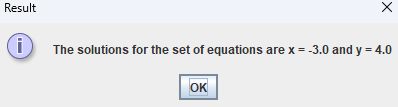


# 2.2.6.2: Solving a set of 2 linear equations

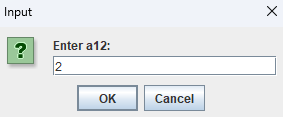
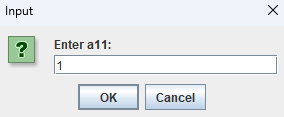
# Case 1: Normal case

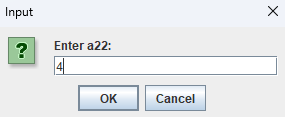
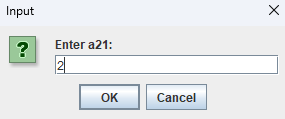


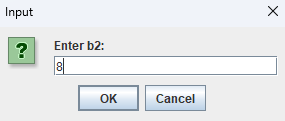
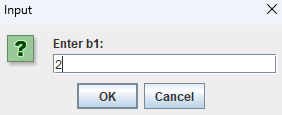


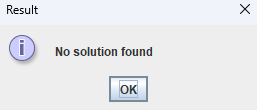


# Case 2: When the determinant = 0

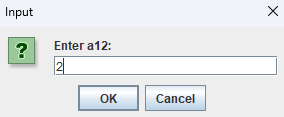
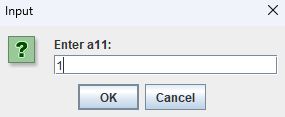


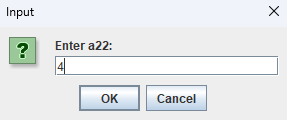
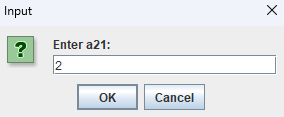


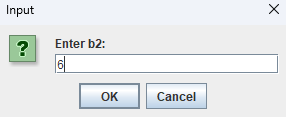
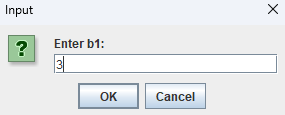


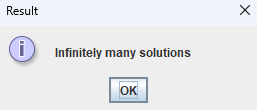


# Case 3: When the Determinant-x = 0 and Determinant-y = 0



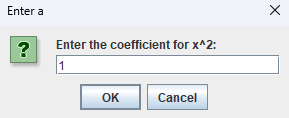


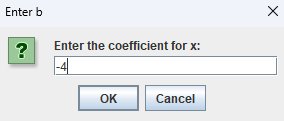


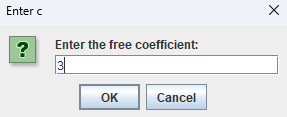


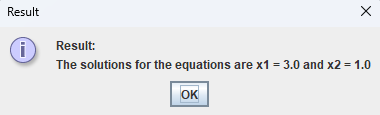
# 2.2.6.3: Solving a quadratic equation

# Case 1: Normal case

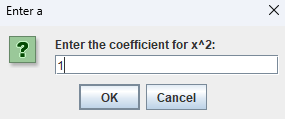


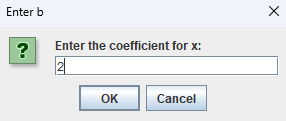


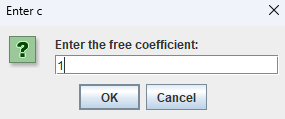


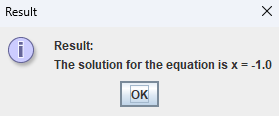


# Case 2: Delta = 0

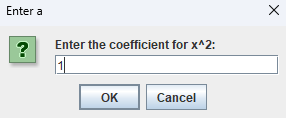


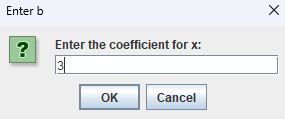


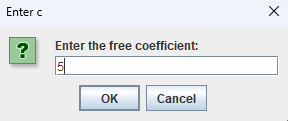


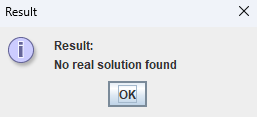


# Case 3: Delta < 0 (No real root)

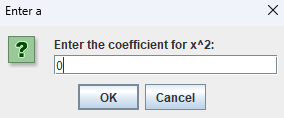


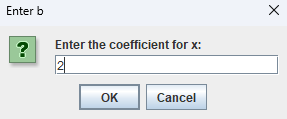


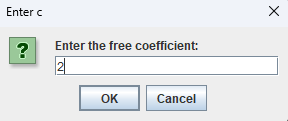


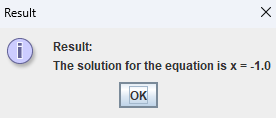


# Case 4: a = 0 and b, c != 0

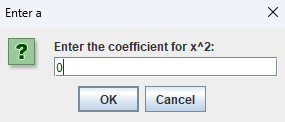


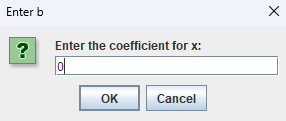


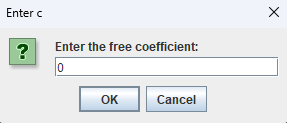


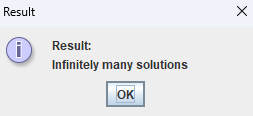


# Case 5: a, b, c = 0



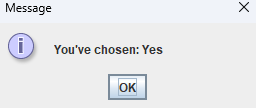




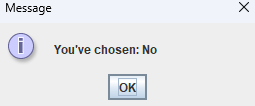


# 6.1: ChoosingOptions

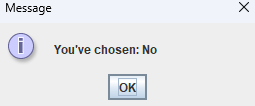
# Case Yes:



Case No:

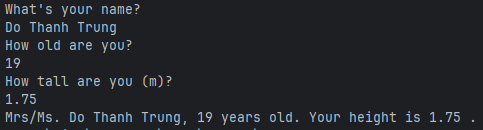


Case cancel:

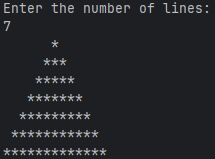


* The output will be “No” which is incorrect. To fix this we need to set up an independent case when the user cancels the program.
* To customize the options to e.g: “I do” or “I don’t”, instead of using showConfirmDialog, we use showOptionDialog. Afterward, we will be able to set up the program’s output to “I do” or “I don’t” using several lines of code.

# 6.2: InputFromKeyboard

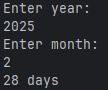


# 6.3: Stars

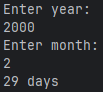


# 6.4: Month program

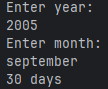
# Case 1: Normal case



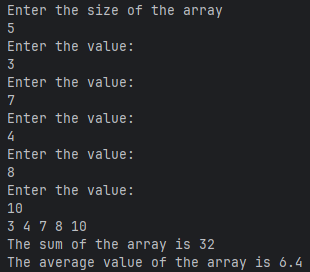
# Case 2: Leap year



Case 3: The month input is a string

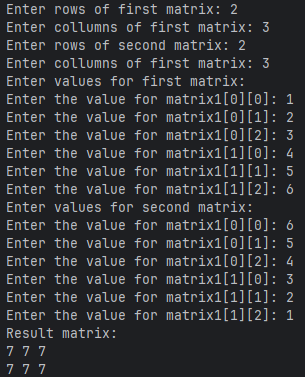


# 6.5: Array



# 6.6: MatrixAdding

# Case 1: Normal case



# Case 2: Matrix of different sizes

