

Project – CSF 206 Advanced Java Programming, Even Sem, 2022

Statement : Write a program using JCF (single java file based project with java file name as linlist) to achieve the following:

Write a program that randomly stores 10 integer numbers (to start with) in a LinkedList object. Using this LinkedList object, implement stack and queue operations using GUI as follows: Add 2 Radio Buttons for choosing options (a) Stack and (b) Queue, and 4 JButtons (**Push, Pop** for Stack, and **Add, Delete** for Queue).

Once you run the program, it should display a LinkedList of 10 random integers in a text field. You should then be able to choose a radio button of either **Stack** or **Queue**, followed by one of its operations (Push or Pop Buttons for Stack **ONLY**, and Add or Delete Buttons for Queue **ONLY** (Invalid choices like choosing Stack followed by pressing ADD button should not work). The program should then display the modified list (as per the operation undertaken) in the text field.

Note: In case you think you may not be able to implement the GUI, then use **JOptionPane** to enter your commands (as shown below), and show the resultant Linked List in the console. The commands to be entered in showInputDialog will be as follows:

Push
Pop
Add
Delete

Note that Stack is a LIFO (Last in first out) structure, and Queue is a FIFO (First in first out) structure.

The maximum points (for all correct output) that you may get if you do not implement the GUI and choose to use JOptionPane instead is 6 points out of the total of 10 points.

Also, above your code, **mention in 2-3 lines of comments**, what exactly you have achieved, in case you could not complete the desired output, and **whether you used GUI or chose to use JOptionPane**.

Project – CSF 206 Advanced Java Programming, Even Sem, 2022

OUTPUT:-

MADE BY SUBHAM SHARMA 1000015301

Previous List Elements are:

72	16	26	52	5	21	21	0	79	73
----	----	----	----	---	----	----	---	----	----

☐ STACK ☒ QUEUE

PUSH POP ADD DELETE

Updated List Elements are:

72	16	26	52	5	21	21	0	79	73
----	----	----	----	---	----	----	---	----	----

Project – CSF 206 Advanced Java Programming, Even Sem, 2022

☒ STACK

☐ QUEUE

PUSH

POP

ADD

DELETE

Input

?

Enter Value For Stack:

45

OK

Cancel

Updated List Elements are:

721626525212107973

☒ STACK

☐ QUEUE

PUSH

POP

ADD

DELETE

Updated List Elements are:

72162652521210797345

Project – CSF 206 Advanced Java Programming, Even Sem, 2022

☒ STACK

☐ QUEUE

PUSH

POP

ADD

DELETE

Updated List Elements are:

721626525212107973

☐ STACK

☒ QUEUE

PUSH

POP

ADD

DELETE

Updated List Elements are:

721626525212107973

?

Enter Value For Queue:

95

OK

Cancel

Project – CSF 206 Advanced Java Programming, Even Sem, 2022

☐ STACK ☒ QUEUE

PUSH POP **ADD** DELETE

Updated List Elements are:

72	16	26	52	5	21	21	0	79	73	95
----	----	----	----	---	----	----	---	----	----	----

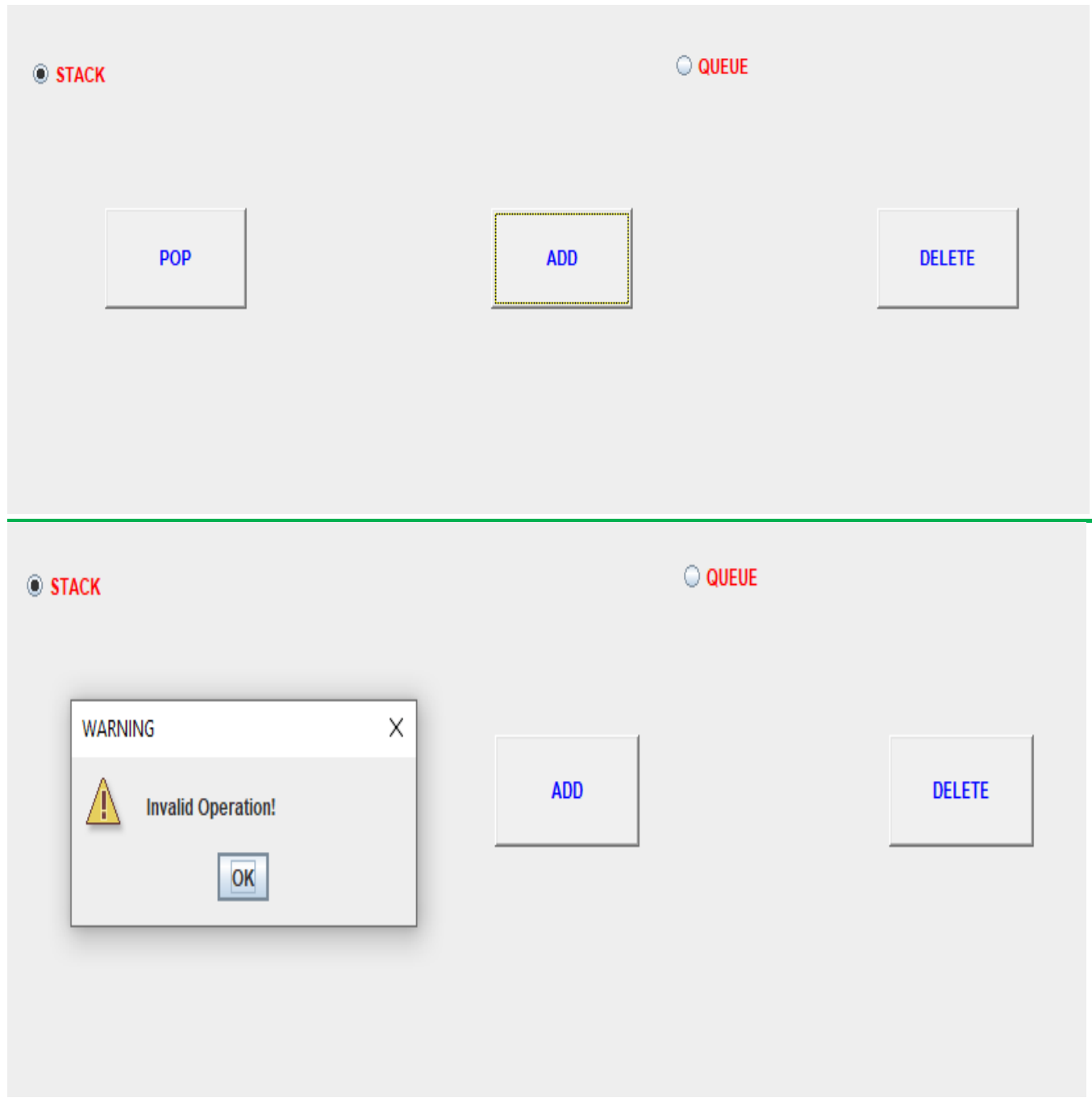
☐ STACK ☒ QUEUE

PUSH POP ADD **DELETE**

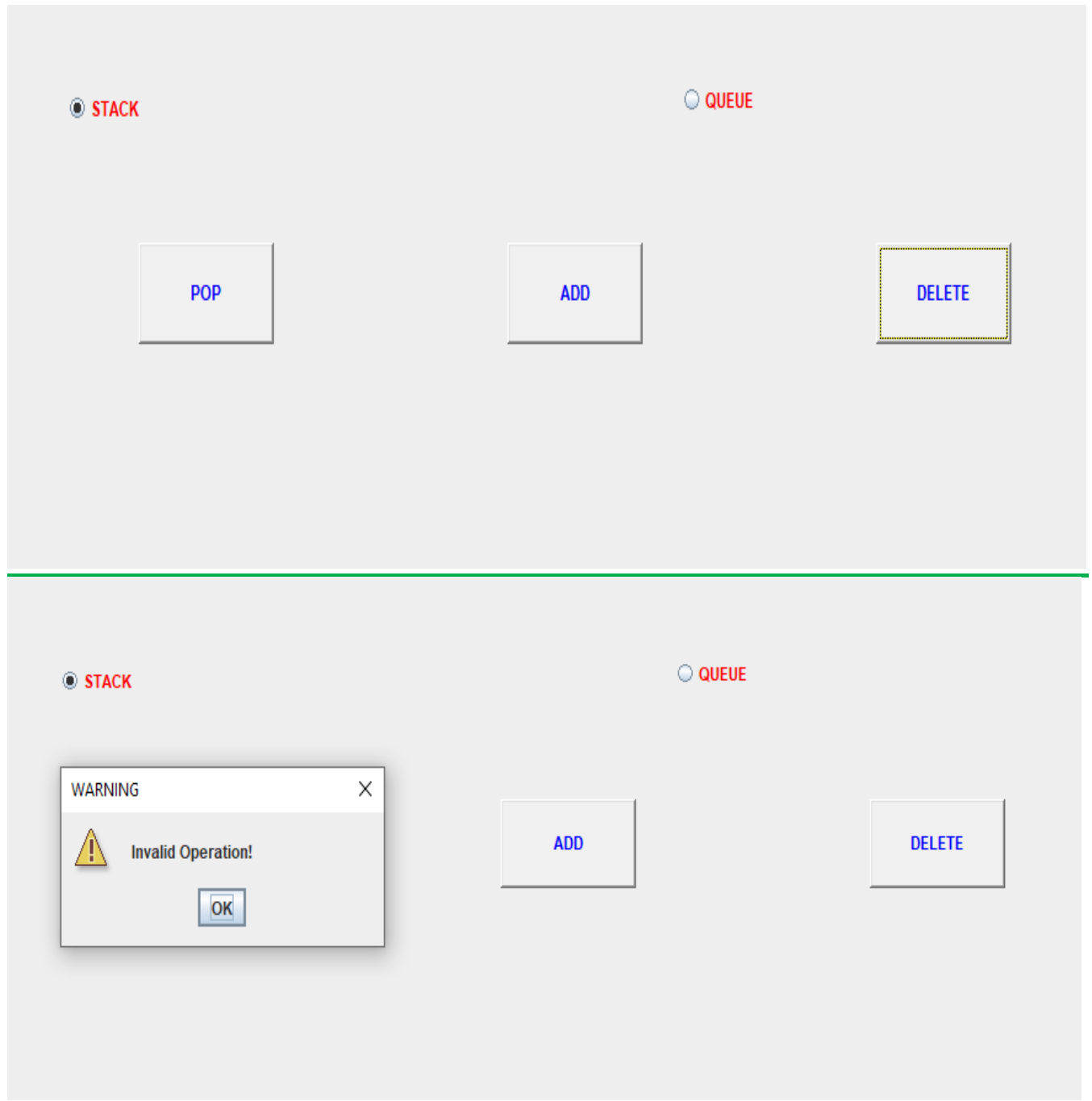
Updated List Elements are:

16	26	52	5	21	21	0	79	73	95
----	----	----	---	----	----	---	----	----	----

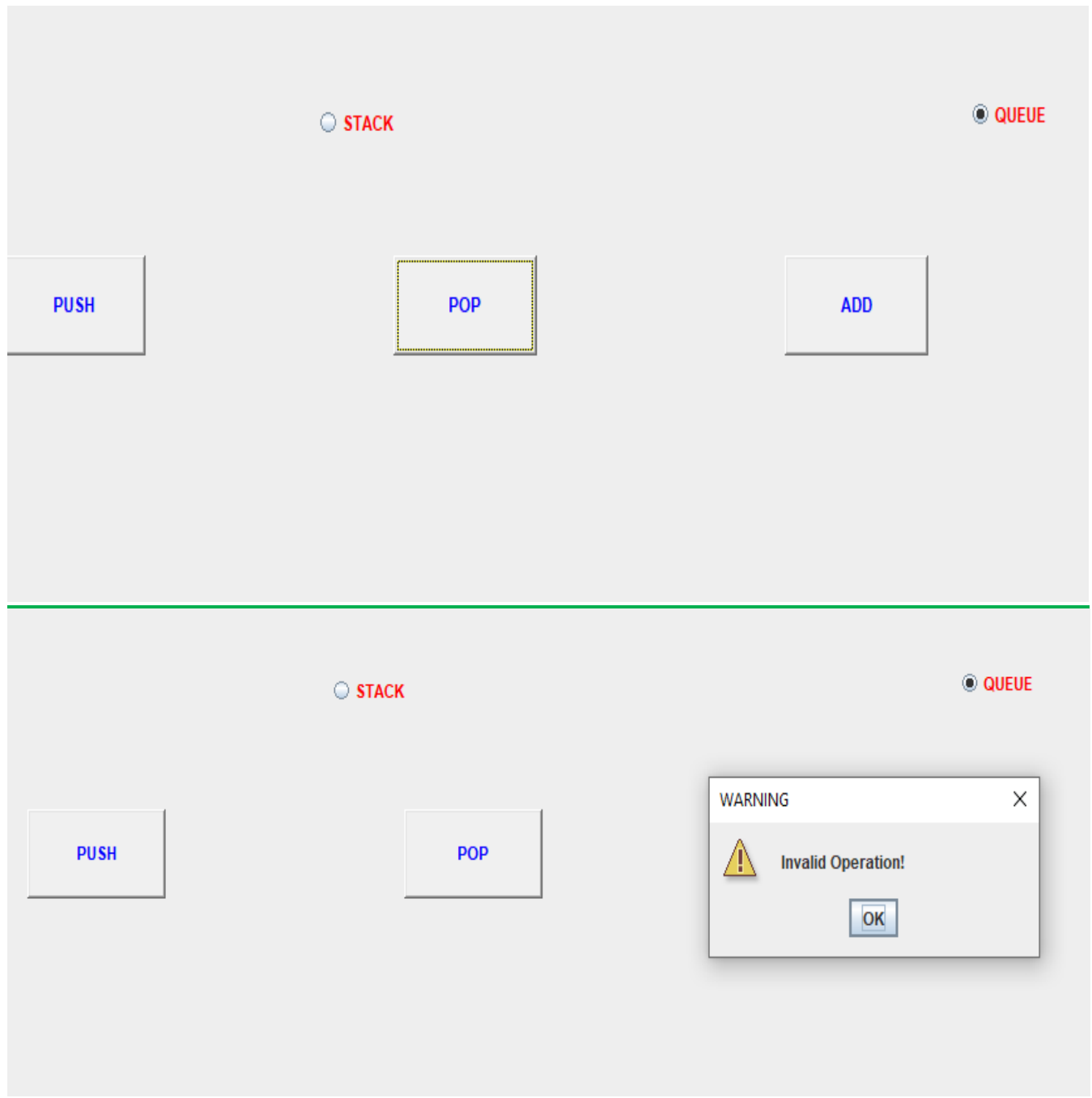
Project – CSF 206 Advanced Java Programming, Even Sem, 2022



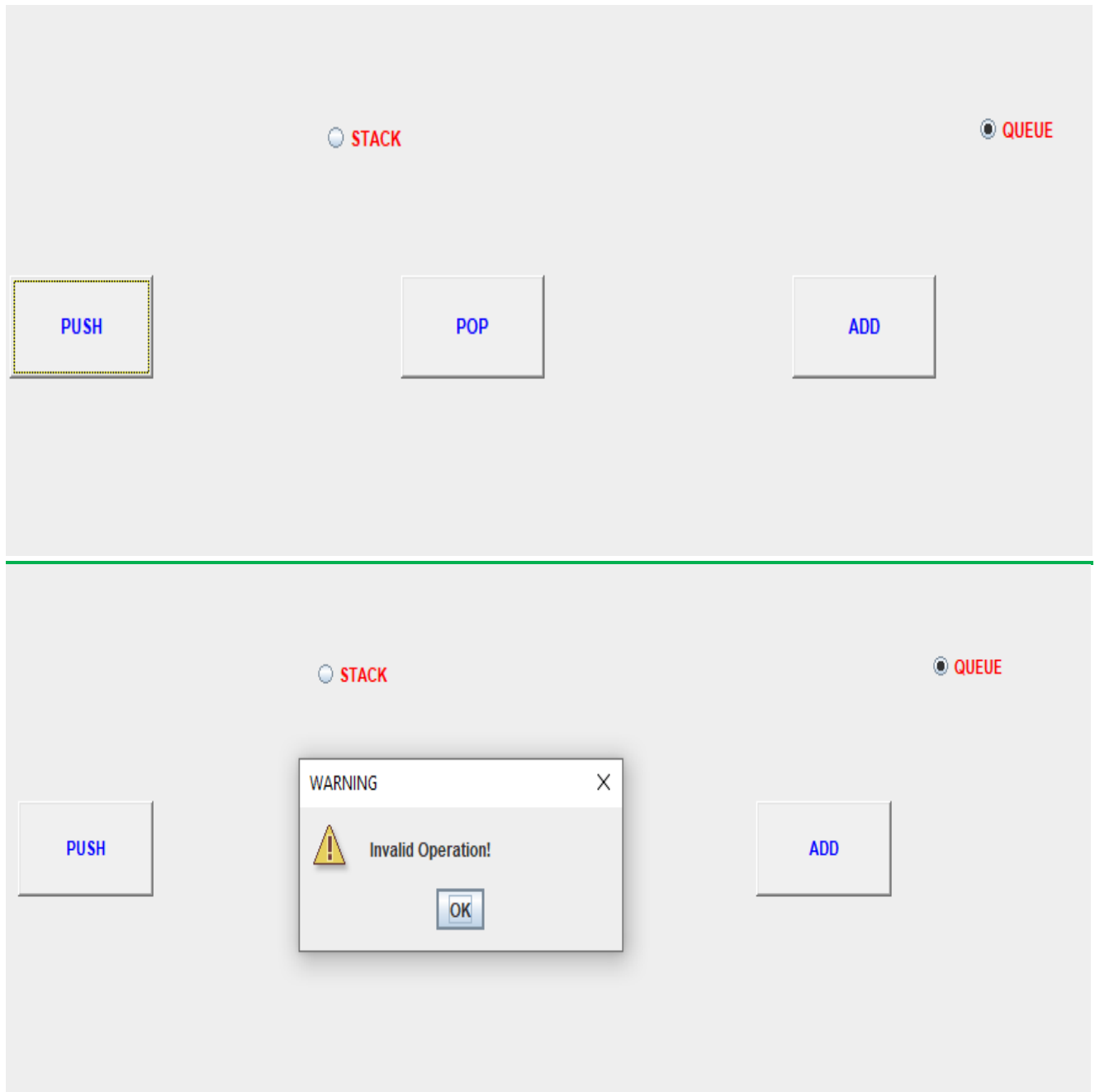
Project – CSF 206 Advanced Java Programming, Even Sem, 2022



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*******THANK YOU*******