



UNIVERSITY OF MINES AND TECHNOLOGY, TARKWA
SECOND SEMESTER EXAMINATIONS, MAY 2018

COURSE NO: CE 274
COURSE NAME: PROGRAMMING WITH JAVA – PART I
CLASS: CE II **TIME:** 2HRS

Name: _____ Index Number: _____

Attempt ALL Questions

1. Create a text file on your computer with same content as shown below.

```
John 23
Mike 36
Kate 22
1957 12
Isaac 21
Kofi Kelvin
Mensah 27
```

Write a Java program to read the content of the text file into an ArrayList and using lines of codes:

- Print out the size of the ArrayList
 - Remove **1957 12** and **Kofi Kelvin** from the ArrayList.
 - Add **Esi 21** into the ArrayList.
 - Clear or empty all content from the ArrayList
2. Create the following sets with the corresponding elements in Java:

$A = \{30, -20, 46, \text{Joyce}, 15, \text{Abena}, 35\}$

$B = \{25, 19, 46, 30, 35, -20\}$

$C = \{30, 45, 35, -20, 10, 12, 15\}$

Write a statement(s) to:

- Remove **Joyce** and **Abena** from set A
- Find the union of A and B
- Find the intersection of B and C

- d. Find B\C\A)
-
3. Design the user interface program which when run starts with the login screen in Figure 1. If user enters a wrong password and/or user name, Figure 2 should be presented to the user. If the user enters the correct user name and password, Figure 3 should welcome user. When message dialog box in Figure 3 is closed, Student Details form in Figure 4 should presented to user while login screen disappears. When user fills the Student

Details form, all details of the student should be written to a text file and saved on the computer.

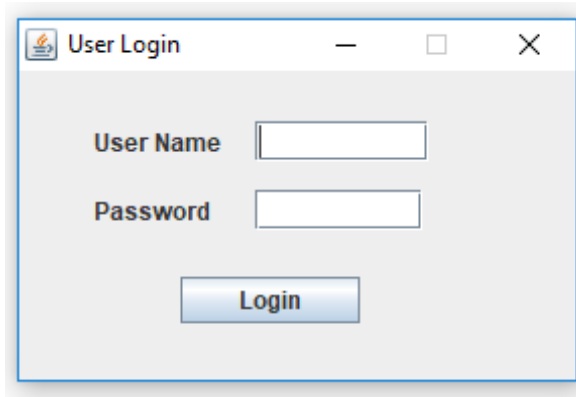


Figure 1: User Login

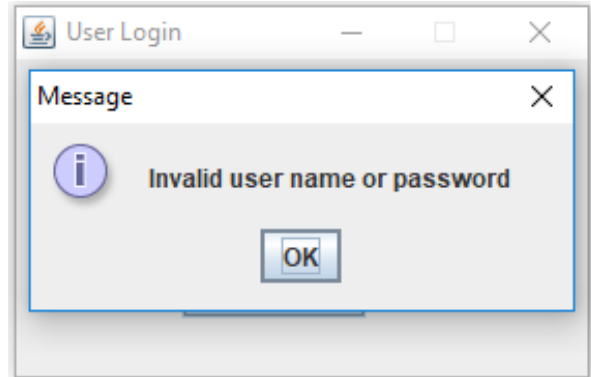


Figure 2: Unsuccessful User Login Message

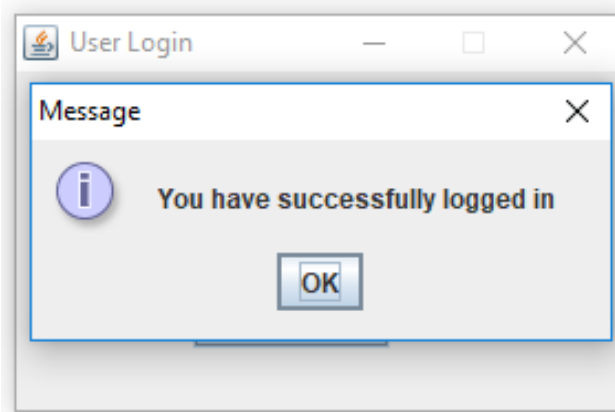


Figure 3: Successful User Login Message

Student Details Form

Student Details

Surname

First Name

Other Name(s)

Index Number

Sex

Male Female

Select Level of Study ▼

Programming Languages Studied

C++ Visual Basic

Java C#

Python Perl

Other (Type Name)

Hall of Residence

Save Details

This is a dropdown list with the following content:
Select Level of Study
1st Year
2nd Year
3rd Year

Figure 4: Student Details Form

Examiners:Dr V. M. Nofong/