

DATA COLLECTIONS (CONTAINERS)

LAB 02

EC 5080

SOFTWARE CONSTRUCTION

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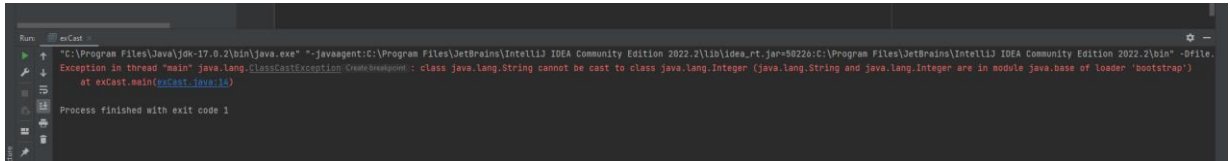
SEMESTER : SEMESTER 05

DATE ASSIGNED : 31 AUGUST 2022

QUESTION 01:

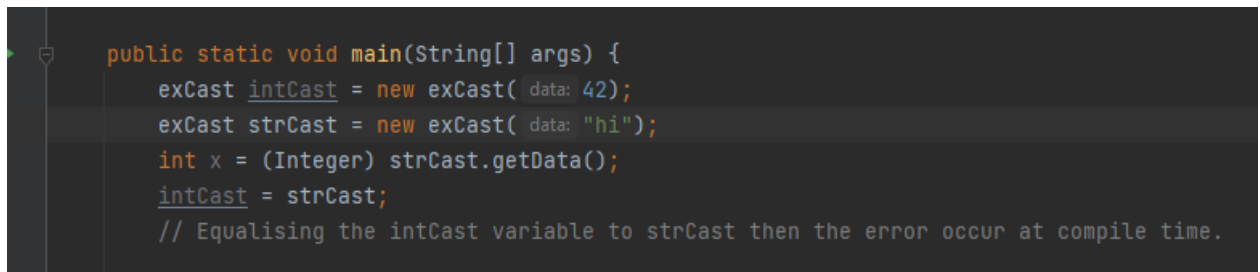
Part 01:

02.



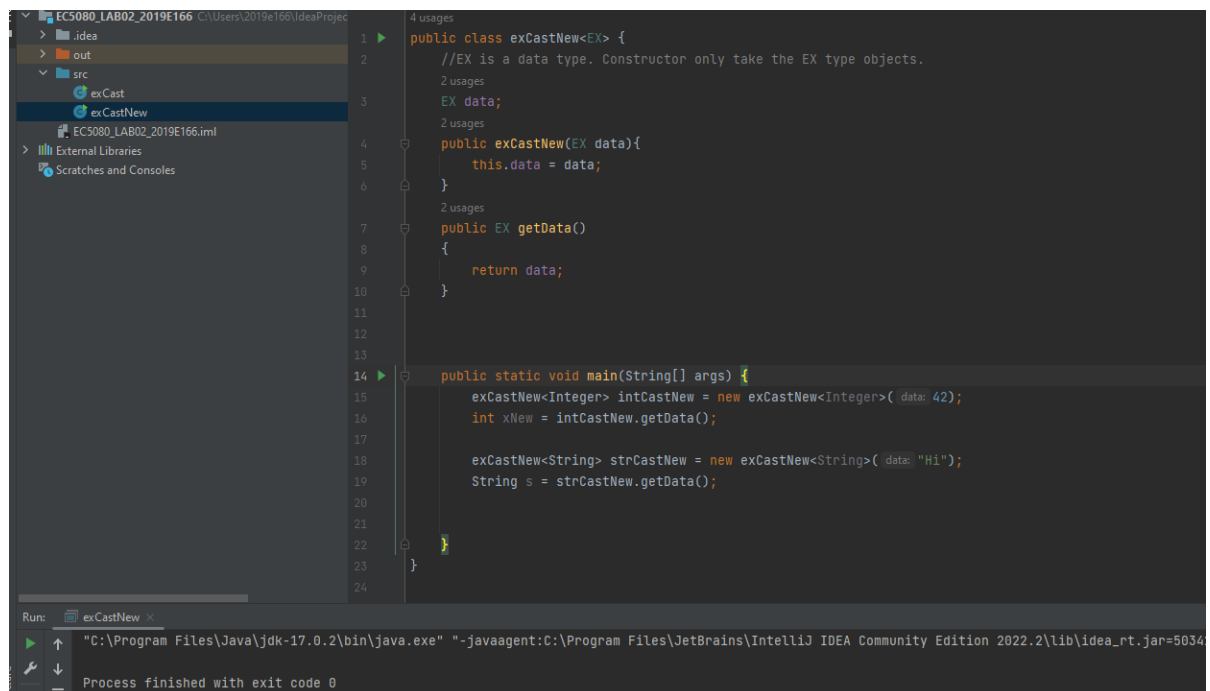
Here we can get a run time error because the casting did not happen properly. According to the compiler the error is detected on `int x = (Integer) strCast.getData();` line.

03.



When `intCast = strCast` line added at the end it will give compile time error.

04.



QUESTION 02:

01.

a. Set.

b.

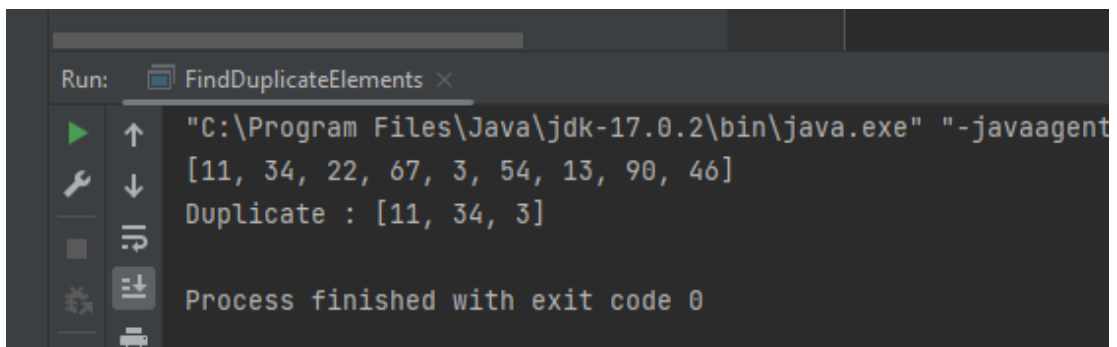
// I certify the code of this lab is entirely my own work, but I referred the lecture notes attached.

```
import java.util.LinkedHashSet;
```

```
import java.util.Set;
```

```
public class FindDuplicateElements {  
    public static void main(String[] args) {  
        int[] data = {11,34,22,67,11,3,54,13,34,90,3,46};  
        Set<Integer> set = new LinkedHashSet<Integer>();  
        Set<Integer> duplicateSet = new LinkedHashSet<Integer>();  
        int j = 0;  
        for(int i =0; i< data.length; i++)  
        {  
            set.add(data[i]);  
            if((j+1) == set.size())  
            {  
                j++;  
            }  
            else  
            {  
                duplicateSet.add(data[i]);  
            }  
        }  
        System.out.println(set);  
        System.out.println("Duplicate : "+duplicateSet);  
    }  
}
```

c.



```
Run: FindDuplicateElements x  
"C:\Program Files\Java\jdk-17.0.2\bin\java.exe" "-javaagent  
[11, 34, 22, 67, 3, 54, 13, 90, 46]  
Duplicate : [11, 34, 3]  
Process finished with exit code 0
```