Name: Shangirne Kharbanda

Registration Number: 20BAI1154

JAVA LAB-8

FILES

1. Write a program that allows you to create a file of customers for a company.

The first part of the program should create an empty file suitable for writing

a three-digit ID number, six-character last name, and five-digit zip code

for each customer. The second half of the program accepts user input to

populate the file. For this exercise, assume that the user will correctly enter

ID numbers and zip codes, but force the customer name to seven characters

if it is too long or too short. Issue an error message, and do not save the

records if the user tries to save a record with an ID number that already has

been used. Save the program as CreateCustomerFile.java.

b. Write a program that creates a file of items carried by the company. Include a

three-digit item number and up to a 20-character description for each item.

Issue an error message if the user tries to store an item number that already

has been used. Save the program as CreateItemFile.java.

c. Write an application that takes customer orders. Allow a user to enter

a customer number and item ordered. Display an error message if the

customer number does not exist in the customer file or the item does not

exist in the item file; otherwise, display all the customer information and

item information. Save the program as CustomerItemOrder.java.

CreateCustomerFile.java

```java
package Customers;

import java.io.IOException;
import java.io.RandomAccessFile;
import java.util.Scanner;
public class CreateCustomerFile
{
    public static void main(String[] args)
    {
        Scanner input= new Scanner(System.in);
        boolean hasMoreCustomers = false;
        String id="";
        String lastname="";
        String zip="";
        try
        {
            RandomAccessFile file=new
RandomAccessFile("CustomerDetail.txt","rw");
            for(int i=0;i<1000;i++)
            {
                file.seek(i*100);
                file.writeUTF(id);
                file.writeUTF(lastname);
                file.writeUTF(zip);
            }
            do
            {
                System.out.println("Enter 3 digit ID number: ");
                id = input.nextLine();
                boolean isCorrectName = false;
                do
                {
                    System.out.println("Enter 6 character last name: ");
                    lastname= input.nextLine();
                    if(lastname.length()==6)
                    {
                        isCorrectName=true;
                    }
                    else if(lastname.length()<6)
                    {
                        System.out.println("Too short");
                    }
                    else
                    {
                        System.out.println("Too long");
                    }
                }while(!isCorrectName);
                System.out.println("Enter 5 digit zip code: ");
                zip= input.nextLine();
                file.seek(Integer.parseInt(id)*100);
                try
                {
                    if(!file.readUTF().equalsIgnoreCase(id))
                    {
                        throw new IOException();
                    }
                    System.out.println("User already present");
                }
                catch(IOException e)
```

```java
                {
                    file.seek(Integer.parseInt(id)*100);
                    file.writeUTF(id);
                    file.writeUTF(lastname);
                    file.writeUTF(zip);
                }
                System.out.println("Do you want to enter more customer details? (Yes/No):");
                hasMoreCustomers =
input.nextLine().equalsIgnoreCase("Yes")?true:false;
            }while(hasMoreCustomers);
            file.close();
        }
        catch(IOException e)
        {
            System.out.println("Error while accessing file");
        }
    }
}
```
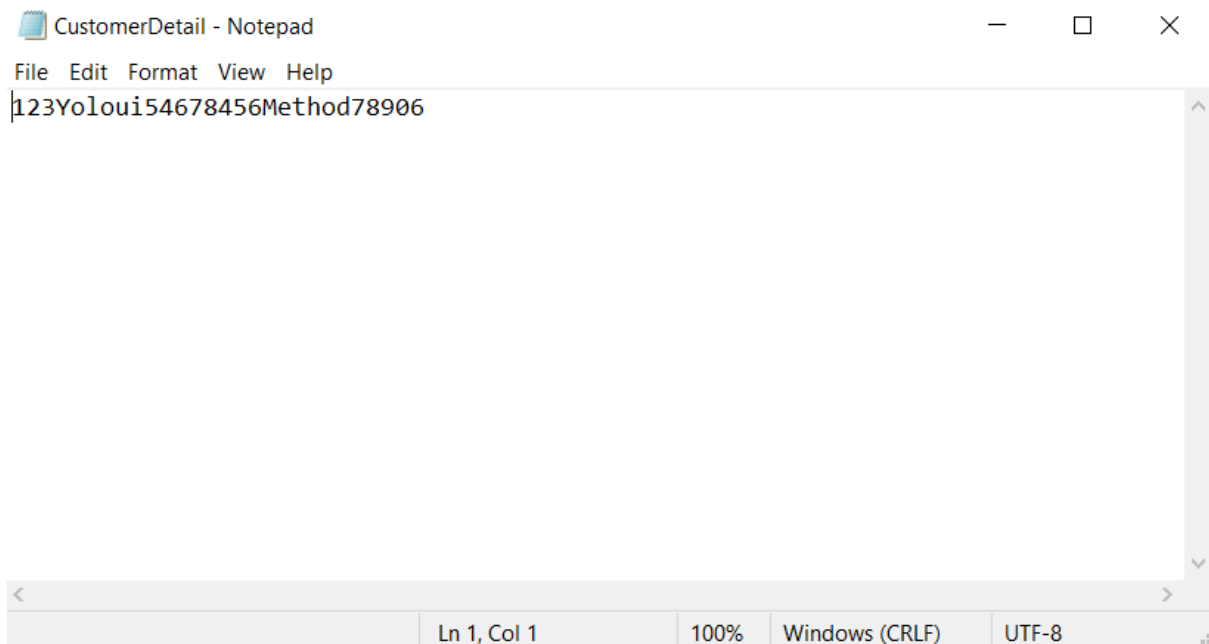
```
Enter 3 digit ID number:
123
Enter 6 character last name:
Yoloui
Enter 5 digit zip code:
54678
Do you want to enter more customer details? (Yes/No):
Yes
Enter 3 digit ID number:
456
Enter 6 character last name:
Method
Enter 5 digit zip code:
78906
Do you want to enter more customer details? (Yes/No):
No

Process finished with exit code 0
```

123Yoloui54678456Method78906

CreateItemFile.java
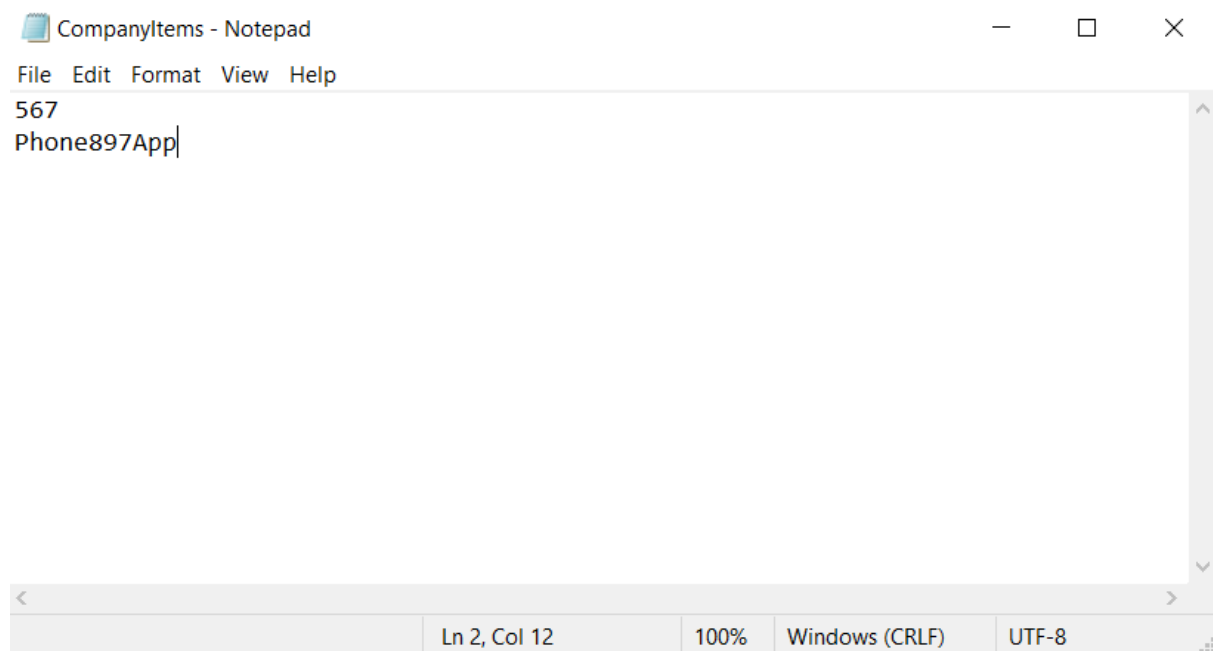
```java
package Customers;

import java.io.IOException;
import java.io.RandomAccessFile;
import java.util.Scanner;
public class CreateItemFile
{
    public static void main(String[] args)
    {
        Scanner input= new Scanner(System.in);
        boolean hasMoreItems = false;
        String item = "";
        String description = "";
        try
        {
            RandomAccessFile file = new
RandomAccessFile("CompanyItems.txt", "rw");
            for(int i=0;i<1000;i++)
            {
                file.seek(i*100);
                file.writeUTF(item);
                file.writeUTF(description);
            }
            file.close();
            do{
                file = new RandomAccessFile("CompanyItems.txt", "rw");
                System.out.println("Enter three digits item number: ");
                item= input.nextLine();
                System.out.println("Enter description: ");
                description= input.nextLine();
                file.seek(Integer.parseInt(item)*100);
                try{
                    if(!file.readUTF().equalsIgnoreCase(item))
                    {
```

```java
                throw new IOException();
            }
            System.out.println("Item already present");
        }
        catch(IOException e)
        {
            file.seek(Integer.parseInt(item)*100);
            file.writeUTF(item);
            file.writeUTF(description);
            file.close();
        }
        System.out.println("Do you want to enter more item details
(Yes/No):");
        hasMoreItems =
input.nextLine().equalsIgnoreCase("Yes")?true:false;
        }while(hasMoreItems);
        file.close();
    }
    catch(IOException e)
    {
        System.out.println("Error while accessing file");
    }
  }
}
```

CompanyItems - Notepad

File Edit Format View Help

```
567
Phone897App
```

Ln 2, Col 12   100%   Windows (CRLF)   UTF-8

CustomerItemOrder.java

```java
package Customers;

import java.io.IOException;
import java.io.RandomAccessFile;
import java.util.Scanner;
public class CustomerItemOrder {
    public static void main(String[] args) {
        Scanner input = new Scanner(System.in);
        try {
            RandomAccessFile itemFile = new
RandomAccessFile("CompanyItems.txt", "rw");
            RandomAccessFile customerFile = new
RandomAccessFile("CustomerDetail.txt",
                    "rw");
            System.out.println("Enter 3 digit customer ID : ");
            String customerId = input.nextLine();
            System.out.println("Enter 3 digit item id : ");
            String itemId = input.nextLine();
            itemFile.seek(Integer.parseInt(itemId) * 100);
            customerFile.seek(Integer.parseInt(customerId) * 100);
            if (!itemId.equalsIgnoreCase(itemFile.readUTF())) {
                System.out.println("Invalid Item ID ");
            } else if
(!customerId.equalsIgnoreCase(customerFile.readUTF())) {
                System.out.println("Invalid Customer ID ");
            } else {
                System.out.println("Customer details :\n\tID : " +
customerId + "\n\tLast name : "
                        + customerFile.readUTF() + "\n\tZip : " +
customerFile.readUTF());
                System.out.println("Item details :" + "\n\tID : " + itemId
+ "\n\tDescription: "
                        + itemFile.readUTF());
            }
            customerFile.close();
            itemFile.close();
        } catch (IOException e) {
            System.out.println("Error while accessing file");
        }
    }
}
```

```
Enter 3 digit customer ID :
123
Enter 3 digit item id :
897
Customer details :
    ID : 123
    Last name : Yoloui
    Zip : 54678
Item details :
    ID : 897
    Description: App


Process finished with exit code 0
```