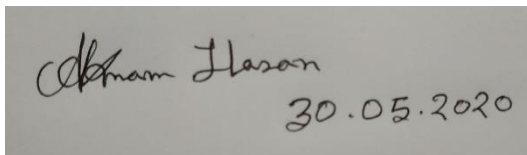


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**Final Assignment for Spring 2020 North South University,
Bangladesh Course Code. CSE 215.4. Course Name: Programming
Language II Total Marks – 30, Assignment Submission Deadline 4th
June 2020 11:58 PM.**

- The assignment MUST be Submitted Using Google forms that you will find in the assignment resources attached.
- Do not post comments and questions about the exam in the course discussion board.
- Send questions directly to the instructor at (faizullah.fuad@northsouth.edu).
- You may use your notes, books, and available articles. But you may not consult with other people.
- **Paste code and output for a Programming question in a word file, add appropriate header and footer containing your information (Name, NSU ID, Course, Section, NSU Email), and create a PDF.**
- Merge the PDF for individual questions in order.
- You must cite your sources properly. Any direct quotes must be enclosed by quotation marks, with page numbers (or address) indicated. You will receive severe point's deductions for using materials from the text or other sources without proper citation.
- **Late submissions are not allowed. Any late submissions will be designated as incomplete.**
- **Proven case of direct code copied from other students or online sources will result in a severe point deduction and it is totally forbidden.**
- Proven cases of Plagiarism (more than 15%) will lead to a severe point deduction.
- Include your name, 7-digit NSU ID, Section, Course, Semester, and NSU Email on each page of your answer (Handwritten and typed).
- **Code and output must also be pasted in final PDF submission. Name of your PDF submission should be: SP2020_CourseCode_Final_1234567.pdf assuming 1234567 is your 7 digit student ID.**
- Add a signed copy of this page to the front of your assignment. Submit the consolidated PDF. Signature should be added at the bottom of this page and the question starts from the Next Page.

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Course: CSE215
Section: 04



Signature with Date

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Project Code

```
import java.awt.Color;
import java.awt.EventQueue;
import java.awt.Font;
import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;
import java.io.BufferedReader;
import java.io.BufferedWriter;
import java.io.File;
import java.io.FileReader;
import java.io.FileWriter;
import java.io.IOException;

import javax.swing.JButton;
import javax.swing.JFrame;
import javax.swing.JLabel;
import javax.swing.JOptionPane;
import javax.swing.JTextArea;
import javax.swing.JTextField;

public class BookShopManagementSystem {

    private JFrame frame;

    private JTextField customer_name;
    private JTextField phone_number;
    private JTextField book_name;
    private JTextField writer_name;

    /**
     * Launch the application.
     */
    public static void main(String[] args) {
        EventQueue.invokeLater(new Runnable() {
```

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```
        public void run() {
            try {
                BookShopManagementSystem window = new BookShopManagementSystem();
                window.frame.setVisible(true);
            } catch (Exception e) {
                e.printStackTrace();
            }
        }
    });
}

/**
 * Create the application.
 */
public BookShopManagementSystem() {
    initialize();
}

/**
 * Initialize the contents of the frame.
 */
private void initialize() {

    File myfile=new File("CustomerDatabase.txt");

    frame = new JFrame();
    frame.setBounds(100, 100, 901, 560);
    frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
    frame.getContentPane().setLayout(null);

    JTextArea textArea = new JTextArea();
    textArea.setBounds(432, 10, 445, 455);
    frame.getContentPane().add(textArea);

    JButton btnshowData = new JButton("Show Database");
    btnshowData.addActionListener(new ActionListener() {
// this will show the entire file on the text Area
        public void actionPerformed(ActionEvent e) {
```

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```
        try {
            String fileName=myfile.getAbsolutePath();
            FileReader read = new FileReader(fileName);
            BufferedReader brr = new BufferedReader(read);
            textArea.read(brr, null);
            brr.close();
            textArea.requestFocus();

        } catch(Exception e1) {
            JOptionPane.showMessageDialog(null, e1);
        }
    }

});
btnshowData.setFont(new Font("Tahoma", Font.BOLD, 14));
btnshowData.setBounds(586, 475, 179, 38);
frame.getContentPane().add(btnshowData);

JLabel lblcustomerName = new JLabel("Customer Name");
lblcustomerName.setFont(new Font("Tahoma", Font.BOLD, 16));
lblcustomerName.setBounds(10, 55, 146, 38);
frame.getContentPane().add(lblcustomerName);

JLabel lblphoneNumber = new JLabel("Phone Number");
lblphoneNumber.setFont(new Font("Tahoma", Font.BOLD, 16));
lblphoneNumber.setBounds(10, 119, 146, 38);
frame.getContentPane().add(lblphoneNumber);

JLabel lblbookName = new JLabel("Book Name");
lblbookName.setFont(new Font("Tahoma", Font.BOLD, 16));
lblbookName.setBounds(10, 179, 146, 38);
frame.getContentPane().add(lblbookName);

JLabel lblwriterName = new JLabel("Writer Name");
lblwriterName.setFont(new Font("Tahoma", Font.BOLD, 16));
lblwriterName.setBounds(10, 239, 146, 38);
frame.getContentPane().add(lblwriterName);

customer_name = new JTextField();
customer_name.setBounds(211, 55, 211, 38);
frame.getContentPane().add(customer_name);
```

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```
customer_name.setColumns(10);

phone_number = new JTextField();
phone_number.setColumns(10);
phone_number.setBounds(211, 119, 211, 38);
frame.getContentPane().add(phone_number);

book_name = new JTextField();
book_name.setColumns(10);
book_name.setBounds(211, 179, 211, 38);
frame.getContentPane().add(book_name);

writer_name = new JTextField();
writer_name.setColumns(10);
writer_name.setBounds(211, 239, 211, 38);
frame.getContentPane().add(writer_name);

JButton btnadd = new JButton("Add");
btnadd.addActionListener(new ActionListener() {
// This button create file and store data in the file
    public void actionPerformed(ActionEvent e) {

        String info=customer_name.getText()+" ,
"+phone_number.getText()+" , "+book_name.getText()+" , "+writer_name.getText();

        try {
            if(myfile.createNewFile()) {
                System.out.println("File created and file name is : "+myfile.getName());
            }
            else {

                System.out.println("The file already exist");
            }

        } catch (Exception e1) {
            System.out.println("An error occurred");
        }

        if(myfile.exists()) {
```

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```
        try {
BufferedWriter writer = new BufferedWriter(new FileWriter("CustomerDatabase.txt",true));
            writer.newLine();
            writer.write(info);
            writer.close();
            customer_name.setText("");
            phone_number.setText("");
            book_name.setText("");
            writer_name.setText("");
            System.out.println("Customer data successfully added to file");

        } catch(IOException e1) {
            e1.printStackTrace();
        }
    }

    });
    btnadd.setFont(new Font("Tahoma", Font.BOLD, 14));
    btnadd.setBounds(307, 322, 115, 38);
    frame.getContentPane().add(btnadd);

    JButton btnReset = new JButton("Reset");
    // this will clear the textField and textArea for reuse.
    btnReset.addActionListener(new ActionListener() {
        public void actionPerformed(ActionEvent e) {

            customer_name.setText("");
            phone_number.setText("");
            book_name.setText("");
            writer_name.setText("");
            textArea.setText("");

        }
    });
    btnReset.setFont(new Font("Tahoma", Font.BOLD, 14));
    btnReset.setBounds(146, 322, 115, 38);
    frame.getContentPane().add(btnReset);
```

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```
        JButton btnExit = new JButton("Exit");
        btnExit.addActionListener(new ActionListener() {
            public void actionPerformed(ActionEvent e) {

                JFrame frmLoginSystem = new JFrame("Exit");
                // this button will exit the program properly.

                if(JOptionPane.showConfirmDialog(frmLoginSystem, "Confirm if you want to exit","Login
                Systems",

                JOptionPane.YES_NO_OPTION)==JOptionPane.YES_NO_OPTION) {
                    System.exit(0);
                }

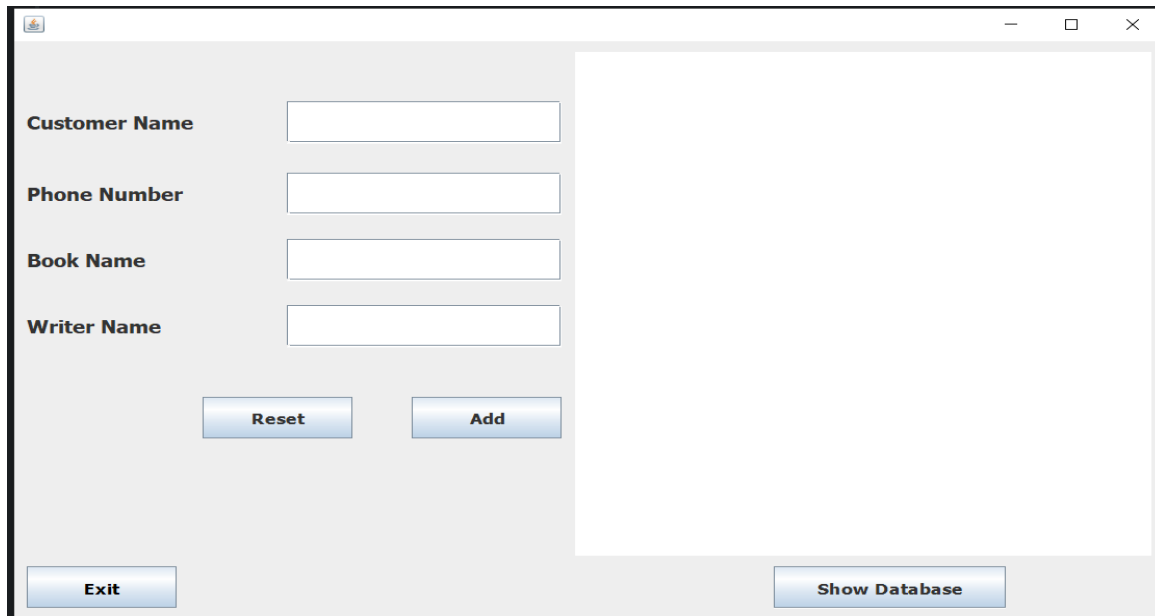
            }
        });
        btnExit.setFont(new Font("Tahoma", Font.BOLD, 14));
        btnExit.setForeground(new Color(0, 0, 0));
        btnExit.setBounds(10, 475, 115, 38);
        frame.getContentPane().add(btnExit);
    }
}
```

Output

This program can take 4 data- customer name, phone number, book name, writer name and store this data in a file. The program can create the file if the file does not exist. And It also can show all the data of the file.

Screenshots are given below:

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Customer Name

Phone Number

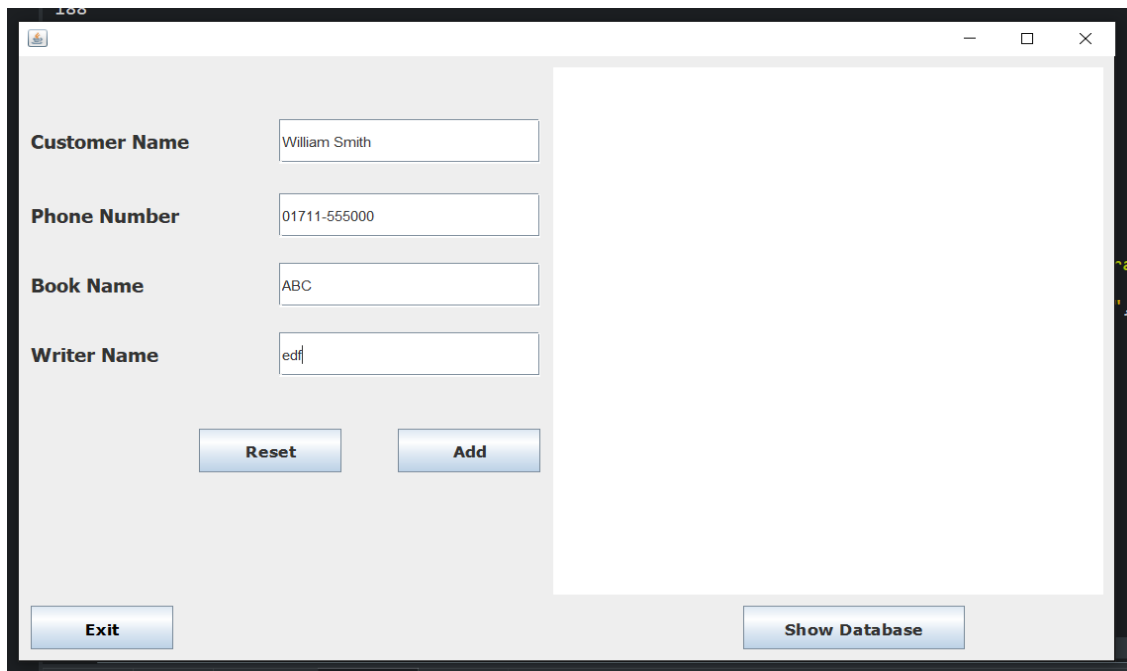
Book Name

Writer Name

Reset Add

Exit Show Database

Here, there are 4 Labels, 4 text fields, 4 buttons and a text area. Add button can add the data from the text fields into the file. If the file does not exist, it can create the file.



Customer Name William Smith

Phone Number 01711-555000

Book Name ABC

Writer Name edf

Reset Add

Exit Show Database

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Customer Name

Phone Number

Book Name

Writer Name

Reset Add

Exit Show Database

Akmam , 0022 , aaabbbccc , abcdef
William Smith , 01711-555000 , ABC , edf

After adding 4 new data, if we press Show Database button, it will read and show the entire file.

CustomerDatabase - Notepad

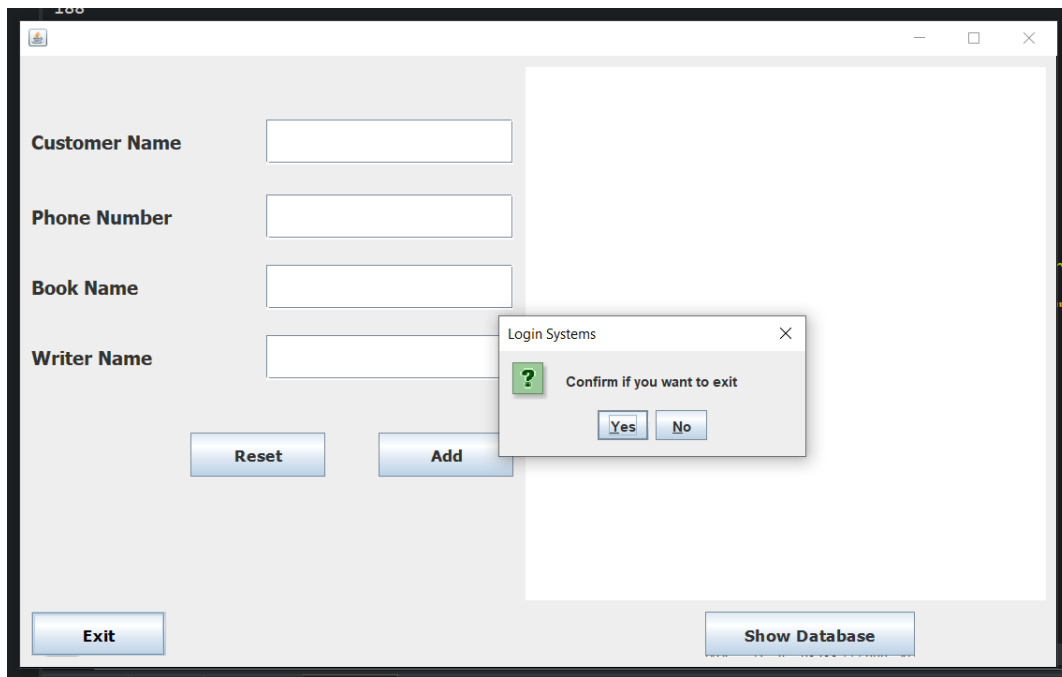
File Edit Format View Help

Akmam , 0022 , aaabbbccc , abcdef
William Smith , 01711-555000 , ABC , edf

Windows (CRLF) Ln 1, Col 1 100%

This is the file which is created.

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Reset button reset all the data from text fields and text area. Finally, the close button can close the entire program properly.

The End