Roll no: 312056 **Seat no: 348**

Java Mini Project

"Password Protected Notepad"

Source code:-

// AddNewUser.java

```
import java.awt.*;
import java.awt.event.*;
import java.util.*;
import javax.swing.*;

public class AddNewUser implements ActionListener {

    JFrame frame = new JFrame();
    JButton saveButton = new JButton("Save");
    JButton goToLoginButton = new JButton("Go to Login");
    JTextField userIDField = new JTextField();
    JPasswordField userPasswordField = new JPasswordField();
    JLabel userIDLabel = new JLabel("Craete UserID:");
    JLabel userPasswordLabel = new JLabel("Set Password:");
    JLabel messgaLabel = new JLabel();

    AddNewUser() {

        // Creating the frames for userid, pass and message
        userIDLabel.setBounds(50, 100, 75, 25);
        userPasswordLabel.setBounds(50, 150, 75, 25);
        userIDField.setBounds(125, 100, 200, 25);
        userPasswordField.setBounds(125, 150, 200, 25);

        // Creating save and go to Login button and adding action listner to the
        saveButton.setBounds(125, 200, 100, 25);
        saveButton.addActionListener(this);
        saveButton.setFocusable(false);
        goToLoginButton.setBounds(225, 200, 100, 25);
        goToLoginButton.addActionListener(this);
        goToLoginButton.setFocusable(false);

        // Adding the elements to the frame
        frame.add(saveButton);
        frame.add(goToLoginButton);
        frame.add(userIDLabel);
        frame.add(userPasswordLabel);
        frame.add(userIDField);
        frame.add(userPasswordField);

        frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
        frame.setSize(420, 420);
        frame.setLocationRelativeTo(null);
        frame.setLayout(null);
        frame.setVisible(true);
    }
```

```
    // Addding functionality to the buttons
    @Override
    public void actionPerformed(ActionEvent e) {

        if (e.getSource() == saveButton) {
            frame.dispose();
            IDandPasswords IdPass = new IDandPasswords();
            IdPass.loginInfo.put(userIDField.getText(),
String.valueOf(userPasswordField.getPassword()));
            LoginPage loginpage = new LoginPage(IdPass.getLoginInfo());
        }
        if (e.getSource() == goToLoginButton) {
            frame.dispose();
            IDandPasswords IdPass = new IDandPasswords();
            LoginPage loginpage = new LoginPage(IdPass.getLoginInfo());
        }
    }
}



// IDandPasswords.java

import java.util.*;

public class IDandPasswords {
    HashMap<String, String> loginInfo = new HashMap<String, String>();

    IDandPasswords() {
        loginInfo.put("Admin", "Admin@123");
    }

    public void AddNewUser(){
        Scanner sc = new Scanner(System.in);
        IDandPasswords newUserDetails = new IDandPasswords();
        newUserDetails.loginInfo.put(sc.nextLine(), sc.nextLine());
    }

    protected HashMap getLoginInfo() {
        return loginInfo;
    }
}

// LoginPage.java
import java.awt.*;
import java.awt.event.*;
import java.util.*;
import javax.swing.*;

public class LoginPage implements ActionListener {

    JFrame frame = new JFrame();
    JButton loginButton = new JButton("Login");
```

```
    JButton addUserButton = new JButton("New User");
    JButton resetButton = new JButton("Reset");
    JTextField userIDField = new JTextField();
    JPasswordField userPasswordField = new JPasswordField();
    JLabel userIDLabel = new JLabel("User ID :");
    JLabel userPasswordLabel = new JLabel("Password :");
    JLabel messgaLabel = new JLabel();

    HashMap<String, String> loginInfo = new HashMap<String, String>();

    LoginPage(HashMap<String, String> loginInfoOriginal) {
        loginInfo = loginInfoOriginal;

        // Creating the frames for userid, pass and message
        userIDLabel.setBounds(50, 100, 75, 25);
        userPasswordLabel.setBounds(50, 150, 75, 25);
        messgaLabel.setBounds(125, 250, 250, 35);
        messgaLabel.setFont(new Font(null, Font.ITALIC, 25));
        userIDField.setBounds(125, 100, 200, 25);
        userPasswordField.setBounds(125, 150, 200, 25);

        // Creating login, reset and new user button and adding action listner to the
        // buttons
        loginButton.setBounds(55, 200, 100, 25);
        loginButton.addActionListener(this);
        loginButton.setFocusable(false);
        resetButton.setBounds(155, 200, 100, 25);
        resetButton.addActionListener(this);
        resetButton.setFocusable(false);
        addUserButton.setBounds(255, 200, 100, 25);
        addUserButton.addActionListener(this);
        addUserButton.setFocusable(false);

        // Adding the elements to the frame
        frame.add(userIDLabel);
        frame.add(userPasswordLabel);
        frame.add(messgaLabel);
        frame.add(userIDField);
        frame.add(userPasswordField);
        frame.add(loginButton);
        frame.add(resetButton);
        frame.add(addUserButton);

        frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
        frame.setSize(420, 420);
        frame.setLocationRelativeTo(null);
        frame.setLayout(null);
        frame.setVisible(true);
    }

    // Addding functionality to the buttons
    @Override
    public void actionPerformed(ActionEvent e) {
```

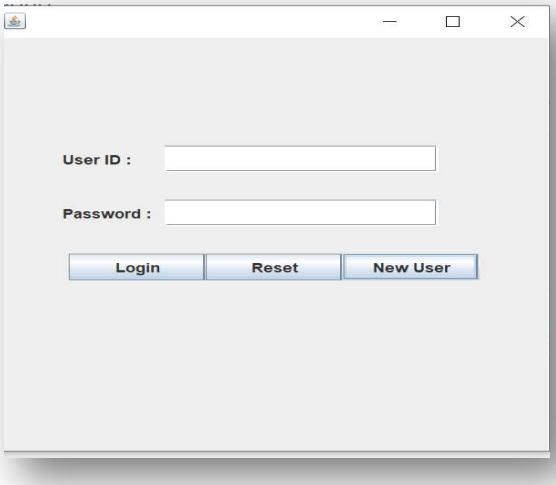
```
        // Reset button
        if (e.getSource() == resetButton) {
            userIDField.setText("");
            userPasswordField.setText("");
        }

        // Login button
        if (e.getSource() == loginButton) {
            String userID = userIDField.getText();
            String password = String.valueOf(userPasswordField.getPassword());

            if (loginInfo.containsKey(userID)) {
                if (loginInfo.get(userID).equals(password)) {
                    messgaLabel.setForeground(Color.green);
                    messgaLabel.setText("Login successful !!!");
                    frame.dispose();
                    new TextEditor();

                } else {
                    messgaLabel.setForeground(Color.red);
                    messgaLabel.setText("Wrong password !!!");
                }
            } else {
                messgaLabel.setForeground(Color.red);
                messgaLabel.setText("Username not found !!!");
            }
        }

        // Add a new user button
        if(e.getSource()==addUserButton){
            frame.dispose();
            new AddNewUser();
        }
    }
}

// TextEditor.java
import java.awt.*;
import java.awt.event.*;
import java.io.*;
import java.util.*;
import javax.swing.*;
import javax.swing.event.*;
import javax.swing.filechooser.*;

public class TextEditor extends JFrame implements ActionListener {
    JTextArea textArea;
    JScrollPane scrollPane;
    JSpinner fontSizeSpinner;
    JLabel fontLabel;
    JButton fontColorButton;
    JComboBox fontBox;
    JMenuBar menuBar;
    JMenu fileMenu;
```

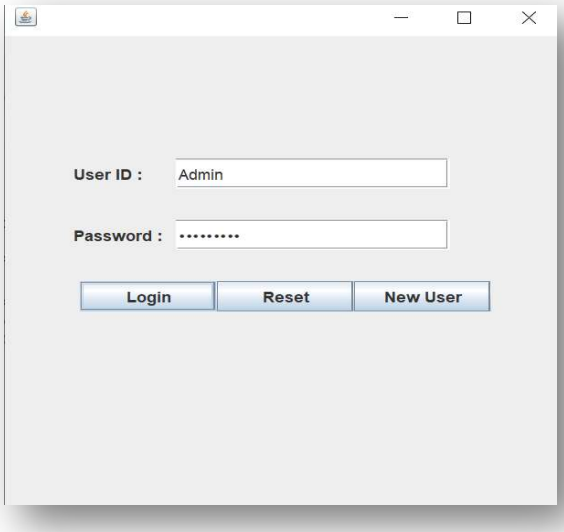
```
    JMenuItem openItem;
    JMenuItem saveItem;
    JMenuItem exitItem;

    TextEditor() {

        // Creating a notepad window
        this.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
        this.setTitle("Notrpadf");
        this.setSize(500, 500);
        this.setLayout(new FlowLayout());
        this.setLocationRelativeTo(null);

        // Adding a text area to the notepad window
        textArea = new JTextArea();
        textArea.setLineWrap(true);
        textArea.setWrapStyleWord(true);
        textArea.setFont(new Font("Arial", Font.PLAIN, 20));

        // Adding a scroll bar to the notepad window
        scrollPane = new JScrollPane(textArea);
        scrollPane.setPreferredSize(new Dimension(460, 450));
        scrollPane.setVerticalScrollBarPolicy(ScrollPaneConstants.VERTICAL_SCROLLBAR_ALWAY
S);

        fontSizeSpinner = new JSpinner();
        fontSizeSpinner.setPreferredSize(new Dimension(50, 25));
        fontSizeSpinner.setValue(20);
        fontSizeSpinner.addChangeListener(new ChangeListener() {
            @Override
            public void stateChanged(ChangeEvent e) {
                textArea.setFont(
                        (new Font(textArea.getFont().getFamily(), Font.PLAIN, (int)
fontSizeSpinner.getValue())));
            }
        });

        fontLabel = new JLabel("Font Size");

        fontColorButton = new JButton("Font Color");
        fontColorButton.addActionListener(this);

        String[] fonts =
GraphicsEnvironment.getLocalGraphicsEnvironment().getAvailableFontFamilyNames();
        fontBox = new JComboBox(fonts);
        fontBox.addActionListener(this);
        fontBox.setSelectedItem("Arial");

        // ---: MENU BAR :---
        menuBar = new JMenuBar();
        fileMenu = new JMenu("File");
        openItem = new JMenuItem("Open");
        saveItem = new JMenuItem("Save");
        exitItem = new JMenuItem("Exit");
```

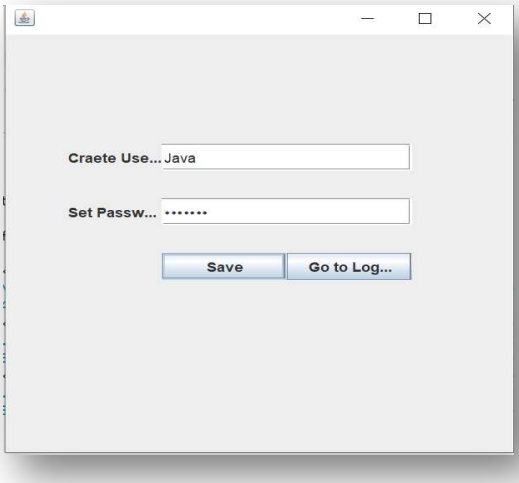
```
        // Adding action listener to the menu buttons
        openItem.addActionListener(this);
        saveItem.addActionListener(this);
        exitItem.addActionListener(this);

        menuBar.add(fileMenu);
        fileMenu.add(openItem);
        fileMenu.add(saveItem);
        fileMenu.add(exitItem);
        // ---: MENU BAR :---

        this.setJMenuBar(menuBar);
        this.add(fontLabel);
        this.add(fontSizeSpinner);
        this.add(fontColorButton);
        this.add(fontBox);
        this.add(scrollPane);
        this.setVisible(true);
    }

    // Adding the actions performed by the each of the provided options
    @Override
    public void actionPerformed(ActionEvent e) {

        // Setting a text color
        if (e.getSource() == fontColorButton) {
            JColorChooser colorChooser = new JColorChooser();
            Color color = colorChooser.showDialog(null, "Chose a color", Color.black);
            textArea.setForeground(color);
        }

        // Setting the font size
        if (e.getSource() == fontBox) {
            textArea.setFont(new Font((String) fontBox.getSelectedItem(), Font.PLAIN,
textArea.getFont().getSize()));
        }

        // Adding functionality to menu buttons
        // Open button
        if (e.getSource() == openItem) {
            JFileChooser fileChooser = new JFileChooser();
            fileChooser.setCurrentDirectory(new File("."));

            int response = fileChooser.showOpenDialog(null);
            if (response == JFileChooser.APPROVE_OPTION) {
                File file = new File(fileChooser.getSelectedFile().getAbsolutePath());
                Scanner fileIn = null;
                try {
                    fileIn = new Scanner(file);
                    if (file.isFile()) {
                        while (fileIn.hasNextLine()) {
                            String line = fileIn.nextLine() + "\n";
                            textArea.append(line);
```

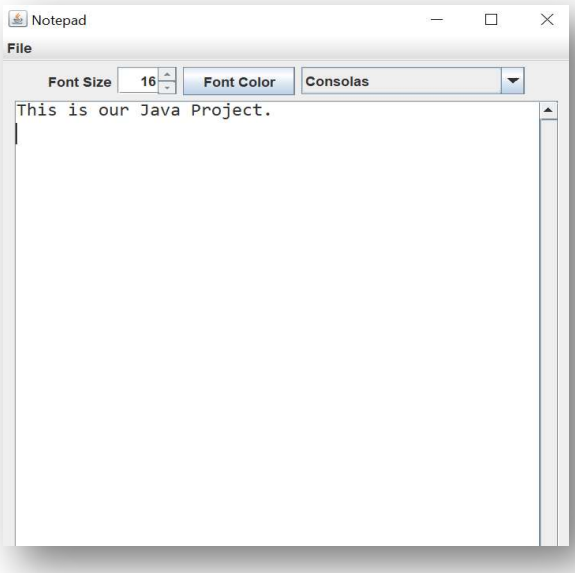
```
                    }
                }
            } catch (FileNotFoundException e1) {
                e1.printStackTrace();
            } finally {
                fileIn.close();
            }

        }
    }

    // Save button
    if (e.getSource() == saveItem) {
        JFileChooser fileChooser = new JFileChooser();
        fileChooser.setCurrentDirectory(new File("."));

        int response = fileChooser.showSaveDialog(null);
        if (response == JFileChooser.APPROVE_OPTION) {
            File file;
            PrintWriter fileOut = null;
            file = new file(fileChooser.getSelectedFile().getAbsolutePath());
            try {
                fileOut = new PrintWriter(file);
                fileOut.println(textArea.getText());
            } catch (FileNotFoundException e1) {
                e1.printStackTrace();
            } finally {
                fileOut.close();
            }
        }
    }
    // Exit button
    if (e.getSource() == exitItem) {
        System.exit(0);
    }
}

}

// Main.java
public class Main {
    public static void main(String[] args) {
        IDandPasswords IdPass = new IDandPasswords();
        LoginPage loginpage = new LoginPage(IdPass.getLoginInfo());
    }
}
```

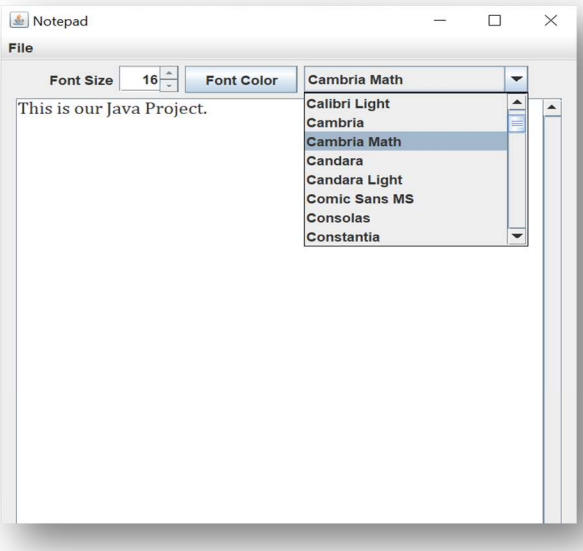
OUTPUT :-

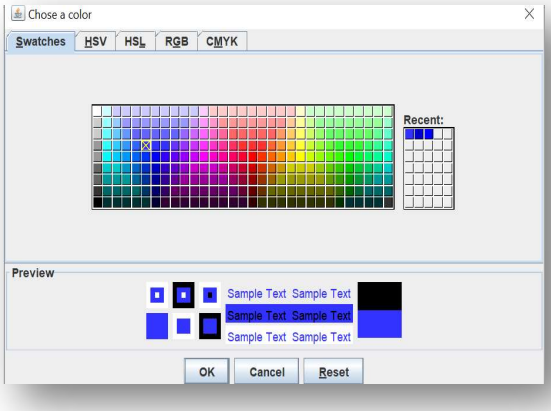

User ID :
Password :
Login
Reset
New User

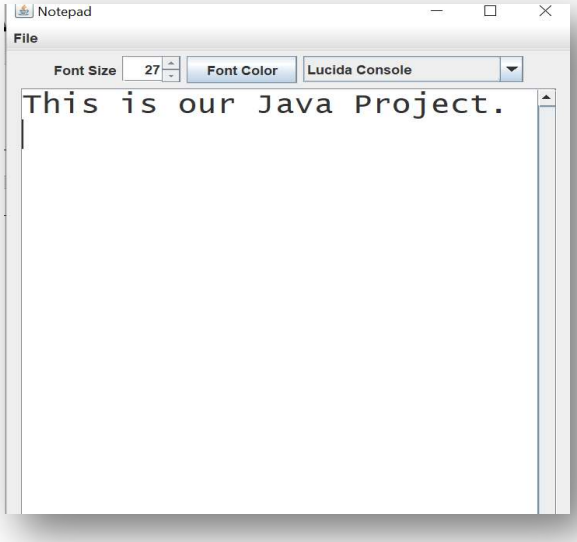

User ID :
Admin
Password :
Login
Reset
New User

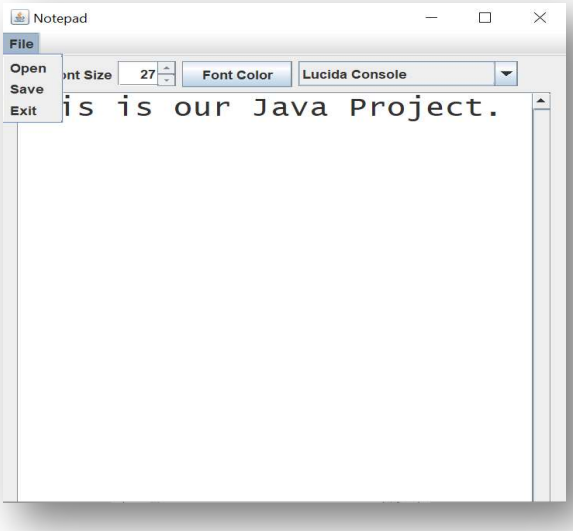

Craete Use...
Java
Set Passw...
Save
Go to Log...

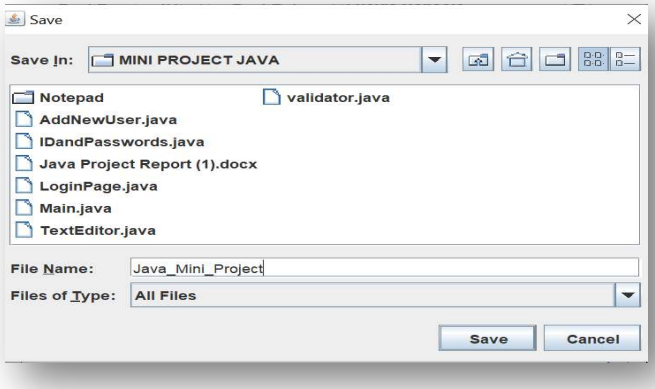

Notepad
File
Font Size
16
Font Color
Consolas
This is our Java Project.

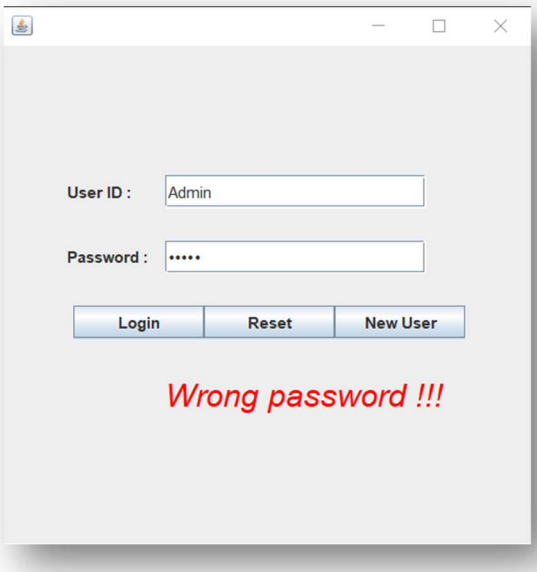

Notepad
File
Font Size
16
Font Color
Cambria Math
This is our Java Project.
Calibri Light
Cambria
Cambria Math
Candara
Candara Light
Comic Sans MS
Consolas
Constantia

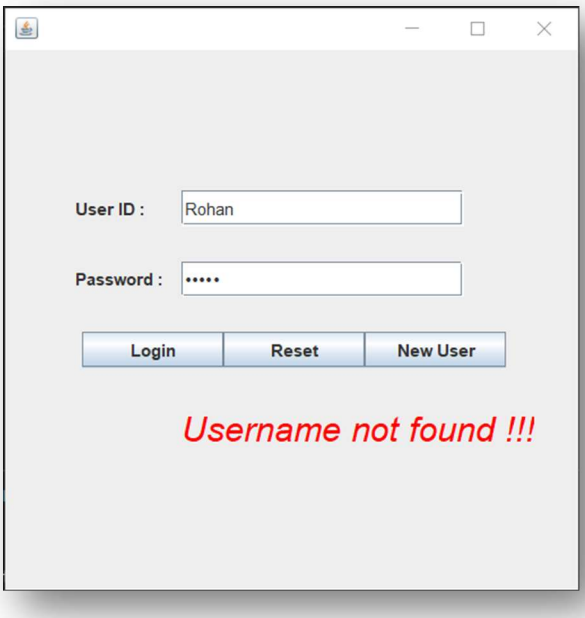

Chose a color
Swatches
HSV
HSL
RGB
CMYK
Recent:
Preview
Sample Text Sample Text
Sample Text Sample Text
Sample Text Sample Text
OK
Cancel
Reset


Notepad
File
Font Size
27
Font Color
Lucida Console
This is our Java Project.


Notepad
File
Open
Save
Exit
Font Size
27
Font Color
Lucida Console
is is our Java Project.


Save
Save In:
MINI PROJECT JAVA
Notepad
validator.java
AddNewUser.java
IDandPasswords.java
Java Project Report (1).docx
LoginPage.java
Main.java
TextEditor.java
File Name:
Java_Mini_Project
Files of Type:
All Files
Save
Cancel


User ID :
Admin
Password :
Login
Reset
New User
Wrong password !!!


User ID :
Rohan
Password :
Login
Reset
New User
Username not found !!!