

18ITO02 – ADVANCED JAVA PROGRAMMING

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CLASS : CSE – A

PROJECT : HOSPITAL MANAGEMENT SYSTEM

DATE : 06-08-2021

SUBJECT : ADVANCED JAVA PROGRAMMING

Hospital Management System

Ex No: 1

Date : 06/08/2021

Basic Swing Components

Aim:

To create a simple Login Page, Registration Page and Summary Page with tabbedPane concept by using basic swing components.

Algorithm:

- Create a frame that can hold other components inside it
- Create a tabbed pane so that it can hold multiple pane and can be easily switched between one another
- Create a login page containing fields to get username and password and add that to the tabbed pane
- Create page to enter details of the patient to get admitted in the hospital and add that page to the tabbed pane
- Create a page to select the type of treatment needed and add it to the tabbed pane
- Create a page that shows the details of the patient by getting it from the text fields, combo box, check boxes, radio button etc... using action listener and add it to the tabbed pane

Code & Output:

```
//Exercise 1 code :

package swingDemo;
import javax.swing.*.*;
import javax.swing.table.DefaultTableModel;
import javax.swing.tree.DefaultMutableTreeNode;
import java.awt.CheckboxGroup;
import java.awt.Color;
import java.awt.Font;
import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;
import javax.swing.JButton;
import javax.swing.JFrame;
import javax.swing.JLabel;
import javax.swing.JOptionPane;
import javax.swing.JScrollPane;
import javax.swing.JTable;
import javax.swing.JTextField;
import javax.swing.event.TreeSelectionEvent;
import javax.swing.event.TreeSelectionListener;

class Hospital {

    String name,medicine,issues;
    int quantity;

    private JFrame frame;
    private JTextField usernameT;
    private JPasswordField passwordT;
    private final ButtonGroup timeGroup = new ButtonGroup();
    CheckboxGroup tabletgroup = new CheckboxGroup();
    private JTextField TabletT;
    public static void main(String[] args) {
        SwingUtilities.invokeLater(new Runnable() {
            public void run() {
                try {
                    Hospital window = new Hospital();
                    window.frame.setVisible(true);
                }
            }
        });
    }
}
```

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        } catch (Exception e) {
            e.printStackTrace();
        }
    }
});
}
public Hospital() {
    initialize();
}
private void initialize() {
    frame = new JFrame();
    JLabel l1 = new JLabel("Hospital Maganement System");
    frame.add(l1);
    l1.setFont(new Font("Tahoma", Font.PLAIN, 19));
    l1.setForeground (Color.BLUE);
    l1.setBounds(210,50,900,15);
    frame.setBounds(200, 200, 650, 400);
    frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
    frame.getContentPane().setLayout(null);
    frame.getContentPane().setBackground(Color.cyan);

    JTabbedPane tabbedPane = new JTabbedPane(JTabbedPane.LEFT);
    tabbedPane.setBounds(100, 100, 730, 550);
    frame.getContentPane().add(tabbedPane);

    JPanel loginPanel = new JPanel();
    tabbedPane.addTab("Login", null, loginPanel, null);
    loginPanel.setLayout(null);

    JLabel usernameL = new JLabel("Username");
    usernameL.setBounds(92, 57, 62, 14);
    loginPanel.add(usernameL);

    JLabel passwordL = new JLabel("Password");
    passwordL.setBounds(92, 101, 62, 14);
    loginPanel.add(passwordL);

    usernameT = new JTextField();
    usernameT.setBounds(164, 54, 121, 20);
    loginPanel.add(usernameT);
    usernameT.setColumns(10);

    JButton loginBtn = new JButton("Login");

    loginBtn.setBounds(134, 177, 89, 23);
    loginPanel.add(loginBtn);

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passwordT = new JPasswordField();
passwordT.setBounds(164, 98, 121, 20);
loginPanel.add(passwordT);
JPanel summaryPanel = new JPanel();
JPanel detailsPanel = new JPanel();
JPanel medicalPanel = new JPanel();

tabbedPane.addTab("Details", null, detailsPanel, null);
detailsPanel.setLayout(null);

JLabel headingL = new JLabel("Booking");
headingL.setBounds(152, 11, 100, 14);
detailsPanel.add(headingL);
JLabel medicineL = new JLabel("Purpose:");
medicineL.setBounds(10, 41, 177, 14);
detailsPanel.add(medicineL);

JLabel issueL = new JLabel("Time:");
issueL.setBounds(10, 81, 77, 14);
detailsPanel.add(issueL);

JComboBox medicineName = new JComboBox();
medicineName.setBounds(81, 38, 203, 20);
detailsPanel.add(medicineName);
medicineName.addItem("---select---");
medicineName.addItem("DentalCare");
medicineName.addItem("EyeCare");
medicineName.addItem("Ortho");
medicineName.addItem("Physio");
medicineName.addItem("Others");

JRadioButton r1 = new JRadioButton("9:00 AM");
timeGroup.add(r1);
r1.setBounds(81, 77, 77, 23);
detailsPanel.add(r1);

JRadioButton r2 = new JRadioButton("12:30 PM");
timeGroup.add(r2);
r2.setBounds(160, 77, 77, 23);
detailsPanel.add(r2);

r1.setActionCommand("9:00 AM");
r2.setActionCommand("12:30 PM");

JLabel seatsL = new JLabel("Days?:");
```

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seatsL.setBounds(10, 125, 46, 14);
detailsPanel.add(seatsL);

TabletT = new JTextField();
TabletT.setBounds(81, 122, 46, 20);
detailsPanel.add(TabletT);
TabletT.setColumns(10);

JButton doneBtn = new JButton("Done");
doneBtn.setBounds(152, 177, 89, 23);
detailsPanel.add(doneBtn);

tabbedPane.addTab("Medical", null, medicalPanel, null);
medicalPanel.setLayout(null);
    JLabel l=new JLabel("MedicalField");
    l.setBounds(49, 31, 77, 14);
    medicalPanel.add(l);

    JCheckBox cb1=new JCheckBox("Calpal");
    cb1.setBounds(100,100,150,14);
    medicalPanel.add(cb1);
    JCheckBox cb2=new JCheckBox("Saridon");
    cb2.setBounds(100,150,150,14);
    medicalPanel.add(cb2);

    JButton b=new JButton("PlaceIt");
    b.setBounds(100,250,80,14);
    medicalPanel.add(b);

tabbedPane.addTab("Bill", null, summaryPanel, null);
summaryPanel.setLayout(null);

    JLabel summaryL = new JLabel("Verification");
    summaryL.setBounds(163, 11, 163, 10);
    summaryPanel.add(summaryL);

    JLabel lblNewLabel = new JLabel("Purpose:");
    lblNewLabel.setBounds(49, 31, 77, 14);
    summaryPanel.add(lblNewLabel);

    JLabel lblNewLabel_1 = new JLabel("Timing:");
    lblNewLabel_1.setBounds(49, 73, 77, 14);
    summaryPanel.add(lblNewLabel_1);

    JLabel lblNewLabel_2 = new JLabel("Days?:");
    lblNewLabel_2.setBounds(49, 114, 77, 14);
    summaryPanel.add(lblNewLabel_2);
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JLabel lblNewLabel_3 = new JLabel("Total Amt:");
lblNewLabel_3.setBounds(49, 157, 77, 14);
summaryPanel.add(lblNewLabel_3);

JLabel s1 = new JLabel("N/A");
s1.setBounds(195, 31, 46, 14);
summaryPanel.add(s1);

JLabel s2 = new JLabel("N/A");
s2.setBounds(195, 73, 46, 14);
summaryPanel.add(s2);

JLabel s3 = new JLabel("N/A");
s3.setBounds(195, 114, 46, 14);
summaryPanel.add(s3);

JLabel s4 = new JLabel("N/A");
s4.setBounds(195, 157, 46, 14);
summaryPanel.add(s4);

loginBtn.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
        if(usernameT.getText().isEmpty() &&
passwordT.getText().isEmpty())
            JOptionPane.showMessageDialog(null, "Fill the
details!" );
        else if(usernameT.getText().isEmpty())
            JOptionPane.showMessageDialog(null, "Enter
Username!" );
        else if(passwordT.getText().isEmpty())
            JOptionPane.showMessageDialog(null, "Enter
Password!" );
        else {
            name=usernameT.getText();
            tabbedPane.setSelectedIndex(1);
            tabbedPane.setEnabledAt(0,true);
            headingL.setText("Welcome,"+name);
            JOptionPane.showMessageDialog(null,
"Logged in successfully!");
        }
    }
});
doneBtn.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
        medicine=medicineName.getSelectedIndex().toString();
        issues=timeGroup.getSelection().getActionCommand();
        quantity=Integer.valueOf(TabletT.getText());

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        s1.setText(medicine);
        s2.setText(issues);
        s3.setText(String.valueOf(quantity));
        s4.setText(String.valueOf(quantity*250));
        tabbedPane.setEnabledAt(1,true);
        tabbedPane.setSelectedIndex(2);
        JOptionPane.showMessageDialog(null, "Appointment
booked Successfully!");
    }
});

        b.addActionListener(new ActionListener() {
            public void actionPerformed(ActionEvent e){

                float amount=0;
                String msg=" ";
                if(cb1.isSelected()){
                    amount+=10;
                    msg="Calpal: 10\n";
                }
                if(cb2.isSelected()){
                    amount+=30;
                    msg+="Saridon: 5\n";
                }
                msg+="-----\n";
                tabbedPane.setEnabledAt(2,true);
                JOptionPane.showMessageDialog(null,msg+"TotalAmt:
"+amount);

            }

        });

        frame.setVisible(true);

    }

}

```

Output:

Hospital Management System

Login	
Details	
Medical	
Bill	

Username

Password

Hospital Management System

Login	Welcome,Aathish	
Details		
Medical		
Bill		

Purpose:

Time: ☒ 9:00 AM ☐ 12:30 PM

Days?:

Message

Logged in successfully!


Hospital Management System

Login	MedicalField
Details	
Medical	
Bill	

☒ Calpal

☒ Saridon

Message

 Calpal: 10
Saridon: 5

TotalAmt: 40.0

Hospital Management System

Login	Verification	
Details	Purpose:	Ortho
Medical	Timing:	9:00 AM
Bill	Days?:	2
	Total Amt:	500

Result:

Thus the above features has been implemented with the swing components.