

## Assignment 13 (UI assignment 1)

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**Que.** Your college is conducting a blood donation camp, so the organiser wants to know how many students are interested in blood donation, therefore design a form to get details of the students like name, age, blood group, last donation data and whether they are ready to donate or not. Design user interface using awt components and handle respective events.

```
package awtDemo;
import java.awt.*; import
java.awt.event.*; import
java.util.ArrayList;
public class BloodDonationForm extends Frame implements ActionListener {
private Label nameLabel, ageLabel, bloodGroupLabel, lastDonationLabel;
private TextField nameTextField, ageTextField, bloodGroupTextField,
lastDonationTextField;
private Checkbox readyToDonateCheckbox;
private Button submitButton; private
ArrayList<String> studentDetails;
public BloodDonationForm() {
// set properties of the frame
setTitle("Blood Donation Form");
setSize(500, 400);
setLayout(new GridLayout(7, 2));
setFont(new Font("Arial", Font.PLAIN, 14));

// create labels for each field
nameLabel = new Label("Name:"); ageLabel
= new Label("Age:");
bloodGroupLabel = new Label("Blood Group:");
lastDonationLabel = new Label("Last Donation Date:");

// create text fields for each label
nameTextField = new TextField();
ageTextField = new TextField();
bloodGroupTextField = new TextField();
lastDonationTextField = new TextField();

// create checkbox for ready to donate
readyToDonateCheckbox = new Checkbox("Ready to Donate?");
readyToDonateCheckbox.setFont(new Font("Arial", Font.PLAIN, 14));
// create submit button
submitButton = new Button("Submit");
submitButton.addActionListener(this);
```

```

        submitButton.setFont(new Font("Arial", Font.BOLD, 16));
submitButton.setForeground(Color.WHITE);
submitButton.setBackground(Color.BLUE);

        // add components to the frame
add(nameLabel);
add(nameTextField);
add(ageLabel);        add(ageTextField);
add(bloodGroupLabel);
add(bloodGroupTextField);
add(lastDonationLabel);
add(lastDonationTextField);
        add(new Label()); // empty label for spacing
add(readyToDonateCheckbox);
        add(new Label()); // empty label for spacing
add(submitButton);

        // initialize student details array list
studentDetails = new ArrayList<String>();
    }    public void
actionPerformed(ActionEvent e) {                //
check if submit button was clicked                if
(e.getSource() == submitButton) {
        // get values from text fields and checkbox
        String name = nameTextField.getText();
        String age = ageTextField.getText();
        String bloodGroup = bloodGroupTextField.getText();
        String lastDonation = lastDonationTextField.getText();
        String readyToDonate = readyToDonateCheckbox.getState() ? "Yes" :
"No";

        // add student details to array list
studentDetails.add(name);
studentDetails.add(age);
studentDetails.add(bloodGroup);
studentDetails.add(lastDonation);
studentDetails.add(readyToDonate);

        // clear text fields and checkbox
nameTextField.setText("");
ageTextField.setText("");
bloodGroupTextField.setText("");
lastDonationTextField.setText("");
readyToDonateCheckbox.setState(false);
        // print success message
        System.out.println("Student details added successfully!");
    }
}

    public static void main(String[] args) {
        BloodDonationForm form = new BloodDonationForm();
form.setVisible(true);
    }
}

```

