

Trabajo Práctico 4 – Separar en Capas (Layers)

Ejercicio 3

El programa que se encuentra en la siguiente hoja está incompleto, falta implementar los métodos que están resaltados en amarillo. Pero además, tiene mezclado en una única clase y único paquete, cuestiones de UI, lógica de negocios y acceso a datos.

Se requiere:

- Modifique y termine de implementar utilizando diseño en capas (invirtiendo la dependencias hacia model).
- Implemente los métodos faltantes:
 - *todosLosConcursos()*: Recupera del archivo **concursos.txt** los concursos si su inscripción se encuentra abierta. Y los muestra en el Combo.
 - *saveInscription()*: Graba las personas que se inscriben en el archivo **inscriptos.txt** según el formato definido.
- Implemente los métodos pero ahora leyendo y escribiendo en una base de datos relacional. Diseñe Usted la/s tabla/s de concursos e inscriptos.

El archivo **inscriptos.txt** debe quedar así:

apellido, nombre, teléfono, email, idconcurso

Young, Angus, 4444-898789, angus@acdc.com, 1

Johnson, Brian, 7789-658987, brian@acdc.com, 2

.

.

El archivo **concursos.txt** tiene la siguiente estructura:

idconcurso, nombre, fechaInicioInscripcion, fechaFinInscripcion

1, concurso x, 2020/06/01, 2020/07/01

...

...

```

package ar.unrn.oop2.programa;

import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;

import javax.swing.GroupLayout;
import javax.swing.GroupLayout.Alignment;
import javax.swing.JButton;
import javax.swing.JComboBox;
import javax.swing.JFrame;
import javax.swing.JLabel;
import javax.swing.JOptionPane;
import javax.swing.JPanel;
import javax.swing.JTextField;
import javax.swing.LayoutStyle.ComponentPlacement;
import javax.swing.border.EmptyBorder;

public class RadioCompetition {

    private JPanel contentPane;
    private JLabel lblName;
    private JTextField txtName;
    private JLabel lblLastName;
    private JTextField txtLastName;
    private JLabel lblId;
    private JTextField txtId;
    private JLabel lblPhone;
    private JTextField txtPhone;
    private JLabel lblEmail;
    private JTextField txtEmail;
    private JComboBox<String> comboBox;
    private JButton btnOk;
    private JLabel lblCompetition;

    public RadioCompetition() {
        var frame = new JFrame("Inscription to Competition");
        frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
        frame.setBounds(100, 100, 451, 229);
        contentPane = new JPanel();
        contentPane.setBorder(new EmptyBorder(5, 5, 5, 5));
        frame.setContentPane(contentPane);

        formElements();
        layout();
        frame.setVisible(true);
    }
}

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private void formElements() {
    lblName = new JLabel("Nombre:");

    txtName = new JTextField();
    txtName.setColumns(10);

    lblLastName = new JLabel("Apellido:");

    txtLastName = new JTextField();
    txtLastName.setColumns(10);

    lblId = new JLabel("Dni:");

    txtId = new JTextField();
    txtId.setColumns(10);

    lblPhone = new JLabel("Telefono:");

    txtPhone = new JTextField();
    txtPhone.setColumns(10);

    lblEmail = new JLabel("Email:");

    txtEmail = new JTextField();
    txtEmail.setColumns(10);

    btnOk = new JButton("Ok");

    btnOk.addActionListener(new ActionListener() {
        public void actionPerformed(ActionEvent e) {
            btnOk.setEnabled(false);
            saveInscription();
            btnOk.setEnabled(true);
        }
    });

    lblCompetition = new JLabel("Concurso:");
    comboBox = new JComboBox<String>();
    todosLosConcursos();
}

private void todosLosConcursos() {
    // carga del archivo de texto concursos.txt los concursos
}

private void saveInscription() {
    if (validations()) {

```

```

    // Guarda en inscriptos.txt los datos de la persona y el concurso elegido
}
}

private boolean validations() {
    if ("".equals(txtName.getText())) {
        JOptionPane.showMessageDialog(this.contentPane, "Nombre no puede ser vacio");
        return false;
    }

    if ("".equals(txtLastName.getText())) {
        JOptionPane.showMessageDialog(this.contentPane,
            "apellido no puede ser vacio");
        return false;
    }

    if ("".equals(txtId.getText())) {
        JOptionPane.showMessageDialog(this.contentPane, "dni no puede ser vacio");
        return false;
    }

    if (!checkEmail(txtEmail.getText())) {
        JOptionPane.showMessageDialog(this.contentPane,
            "email debe ser válido");
        return false;
    }

    if (!checkPhone(txtPhone.getText())) {
        JOptionPane.showMessageDialog(this.contentPane,
            "El teléfono debe ingresarse de la siguiente forma: NNNN-NNNNNN");
        return false;
    }

    if (this.comboBox.getSelectedIndex() <= 0) {
        JOptionPane.showMessageDialog(this.contentPane, "Debe elegir un Concurso");
        return false;
    }

    return true;
}

private boolean checkEmail(String email) {
    String regex = "^\\w-\\.+]*[\\w-\\.]*\\@([\\w]+\\.)+[\\w]+[\\w]$";
    return email.matches(regex);
}

private boolean checkPhone(String telefono) {
    String regex = "\\d{4}-\\d{6}";
    return telefono.matches(regex);
}

```

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}
```

```
private void layout() {  
    GroupLayout gl_contentPane = new GroupLayout(contentPane);  
    gl_contentPane.setHorizontalGroup(gl_contentPane  
        .createParallelGroup(Alignment.LEADING)  
        .addGroup(gl_contentPane.createSequentialGroup().addContainerGap()  
            .addGroup(gl_contentPane  
                .createParallelGroup(Alignment.LEADING).addGroup(gl_contentPane  
                    .createSequentialGroup()  
                    .addGroup(gl_contentPane.createParallelGroup(Alignment.LEADING)  
                        .addComponent(lblLastName).addComponent(lblId)  
                        .addComponent(lblPhone).addComponent(lblEmail)  
                        .addComponent(lblName).addComponent(lblCompetition))  
                    .addPreferredGap(ComponentPlacement.RELATED, 28, Short.MAX_VALUE)  
                    .addGroup(  
                        gl_contentPane.createParallelGroup(Alignment.LEADING, false)  
                        .addComponent(comboBox, 0, GroupLayout.DEFAULT_SIZE,  
                            Short.MAX_VALUE)  
                        .addComponent(txtEmail, Alignment.TRAILING)  
                        .addComponent(txtPhone, Alignment.TRAILING)  
                        .addComponent(txtId, Alignment.TRAILING)  
                        .addComponent(txtLastName, Alignment.TRAILING)  
                        .addComponent(txtName, Alignment.TRAILING,  
                            GroupLayout.DEFAULT_SIZE, 298, Short.MAX_VALUE)))  
                    .addComponent(btnOk, Alignment.TRAILING,  
                        GroupLayout.PREFERRED_SIZE, 86, GroupLayout.PREFERRED_SIZE))  
                    .addContainerGap());  
            gl_contentPane  
                .setVerticalGroup(gl_contentPane.createParallelGroup(Alignment.LEADING)  
                    .addGroup(gl_contentPane.createSequentialGroup()  
                        .addGroup(gl_contentPane.createParallelGroup(Alignment.BASELINE)  
                            .addComponent(txtName, GroupLayout.PREFERRED_SIZE,  
                                GroupLayout.DEFAULT_SIZE, GroupLayout.PREFERRED_SIZE)  
                            .addComponent(lblName))  
                        .addPreferredGap(ComponentPlacement.RELATED)  
                        .addGroup(gl_contentPane.createParallelGroup(Alignment.BASELINE)  
                            .addComponent(lblLastName).addComponent(txtLastName,  
                                GroupLayout.PREFERRED_SIZE, GroupLayout.DEFAULT_SIZE,  
                                GroupLayout.PREFERRED_SIZE))  
                        .addPreferredGap(ComponentPlacement.RELATED)  
                        .addGroup(gl_contentPane.createParallelGroup(Alignment.TRAILING)  
                            .addComponent(lblId).addComponent(  
                                txtId, GroupLayout.PREFERRED_SIZE, GroupLayout.DEFAULT_SIZE,  
                                GroupLayout.PREFERRED_SIZE))  
                        .addPreferredGap(ComponentPlacement.RELATED)  
                        .addGroup(gl_contentPane.createParallelGroup(Alignment.LEADING)  
                            .addGroup(  

```

```

        gl_contentPane.createSequentialGroup().addComponent(lblPhone)
            .addPreferredGap(ComponentPlacement.UNRELATED)
            .addComponent(lblEmail))
        .addGroup(gl_contentPane.createSequentialGroup()
            .addComponent(txtPhone, GroupLayout.PREFERRED_SIZE,
                GroupLayout.DEFAULT_SIZE, GroupLayout.PREFERRED_SIZE)
            .addPreferredGap(ComponentPlacement.RELATED)
            .addComponent(txtEmail, GroupLayout.PREFERRED_SIZE,
                GroupLayout.DEFAULT_SIZE, GroupLayout.PREFERRED_SIZE)
            .addPreferredGap(ComponentPlacement.RELATED).addGroup(
                gl_contentPane.createParallelGroup(Alignment.BASELINE)
                    .addComponent(comboBox, GroupLayout.PREFERRED_SIZE,
                        GroupLayout.DEFAULT_SIZE, GroupLayout.PREFERRED_SIZE)
                    .addComponent(lblCompetition))))
        .addPreferredGap(ComponentPlacement.RELATED).addComponent(btnOk)
        .addContainerGap(67, Short.MAX_VALUE));
contentPane.setLayout(gl_contentPane);
    }
}

```

```
package ar.unrn.oop2.programa;
```

```
import javax.swing.SwingUtilities;
```

```
public class Main {
```

```

    public static void main(String[] args) {
        SwingUtilities.invokeLater(new Runnable() {
            @Override
            public void run() {
                try {
                    new Main().start();
                } catch (Exception e) {
                    // log exception...
                    System.out.println(e);
                }
            }
        });
    }

```

```

    private void start() {
        new RadioCompetition();
    }

```

```
}
```

