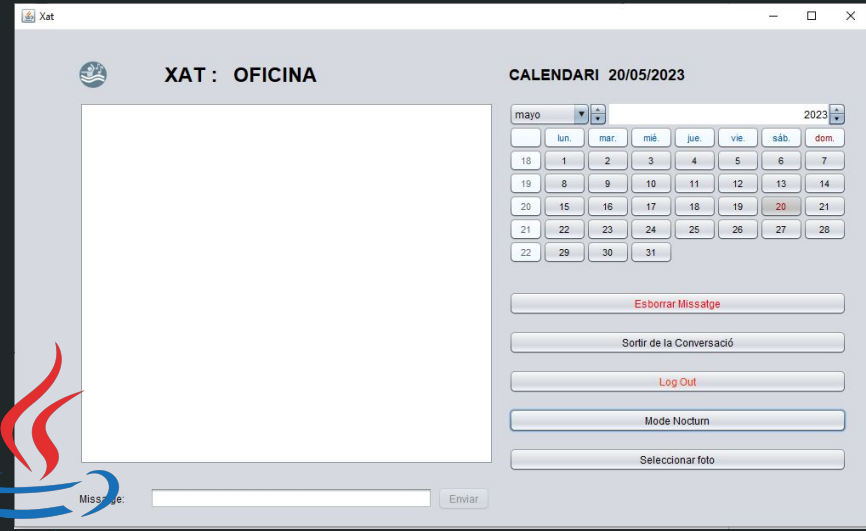


# Projecte Xat

## M6- Accés a Dades

Oleg Blyznyuk i Èric Estivill



# Índex

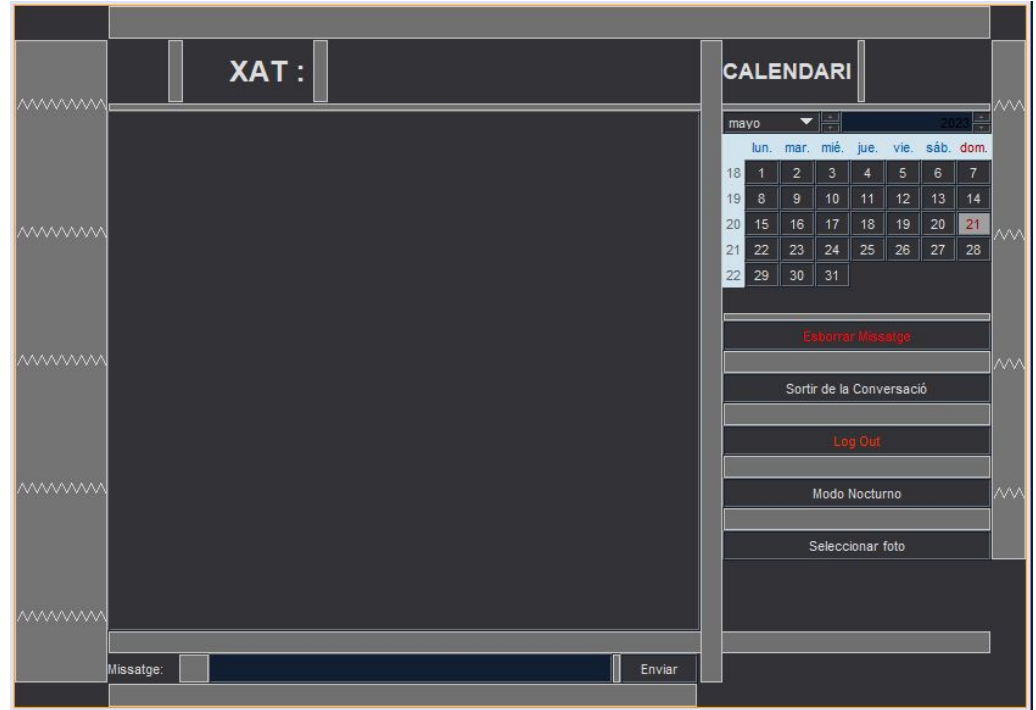
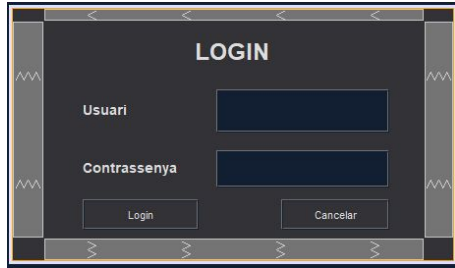
- 1) INTRODUCCIÓ
- 2) INTERFÍCIE GRÀFICA
- 3) CONVERSES
- 4) FUNCIONS XAT
- 5) BEANS PROPIS

# 1-Introducció

-En aquest projecte haviem de fer un Xat amb interfície gràfica usant mongoDB com a base de dades.



## 2-Interfície Gràfica



# Interfície Gràfica



A login window titled "Iniciar sessió" with a light gray background. It features a "LOGIN" heading in bold. Below the heading are two input fields: "Usuari" (User) and "Contrassenya" (Password). The "Usuari" field has a blue border and a cursor. Below the "Contrassenya" field is a "Login" button and a "Cancelar" button.



A window titled "Conversacions" with a light gray background. It features a heading "LES TEVES CONVERSACIONS" in bold. Below the heading is a large white rectangular area labeled "PUBLIC". Below this area are five buttons: "Entrar a la Conversació", "Unir-se a una Conversació", "Eliminar Conversació", "Log Out" (in red text), and "Afegir Conversació". At the bottom left, there is a small white input field.

# Interfície Gràfica

The screenshot displays a web application window titled "Xat". The interface is divided into two main sections. On the left, under the heading "XAT : PUBLIC", is a large, empty white rectangular area. On the right, under the heading "CALENDARI 21/05/2023", is a calendar for the month of May 2023. The calendar shows the days of the week (lun., mar., mié., jue., vie., sáb., dom.) and the dates. The date 21 is highlighted in red. Below the calendar, there are five buttons: "Esborrar Missatge", "Sortir de la Conversació", "Log Out", "Modo Nocturno", and "Seleccionar foto". At the bottom left, there is a text input field labeled "Missatge:" and a button labeled "Enviar".

Xat

XAT : PUBLIC

CALENDARI 21/05/2023

mayo 2023

	lun.	mar.	mié.	jue.	vie.	sáb.	dom.
18	1	2	3	4	5	6	7
19	8	9	10	11	12	13	14
20	15	16	17	18	19	20	21
21	22	23	24	25	26	27	28
22	29	30	31				

Esborrar Missatge

Sortir de la Conversació

Log Out

Modo Nocturno

Seleccionar foto

Missatge:  Enviar

### 3- Converses

#### 1) Pantalla Admin/No Admin



# Converses

## 2) Mostrar Converses



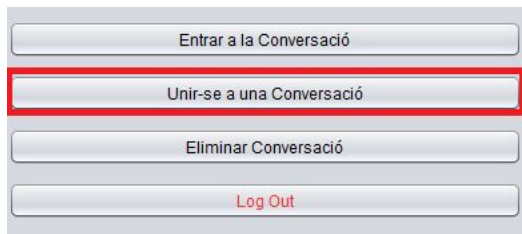
```
public void recarregarConversacions() {  
    Document userDoc = collection2.find(filtrouser).first();  
    if (userDoc != null) {  
        ArrayList<Object> xatsObject = userDoc.get("xats", ArrayList.class);  
        xats = new ArrayList<>();  
        xatsNom = new ArrayList<>();  
        for (Object xatObject : xatsObject) {  
            xats.add(String.valueOf(xatObject));  
        }  
    }  
    Document query = new Document("_id", new Document("$in", xats));  
    FindIterable<Document> conversacions = collection3.find(query);  
  
    messageListModel.clear();  
    for (Document conversacio : conversacions) {  
        String nom_grup = conversacio.getString("nom");  
        xatsNom.add(nom_grup);  
        messageListModel.addElement(nom_grup);  
    }  
}
```





# Converses

## 3) Unirse a novas converses



```
private void joinXatActionPerformed(java.awt.event.ActionEvent evt) {  
    if(newConv == false){  
        Document query = new Document("_id", new Document("$nin", xats));  
        FindIterable<Document> conversacions = collection3.find(query);  
        newConv = true;  
        conv.setText("CONVERSACIONS PER UNIR-SE");  
        messageListModel.clear();  
        for (Document conversacio : conversacions) {  
            String nom_grup = conversacio.getString("nom");  
            messageListModel.addElement(nom_grup);  
        }  
    }else{  
        newConv = false;  
        conv.setText("LES TEVES CONVERSACIONS");  
        recarregarConversacions();  
    }  
}
```



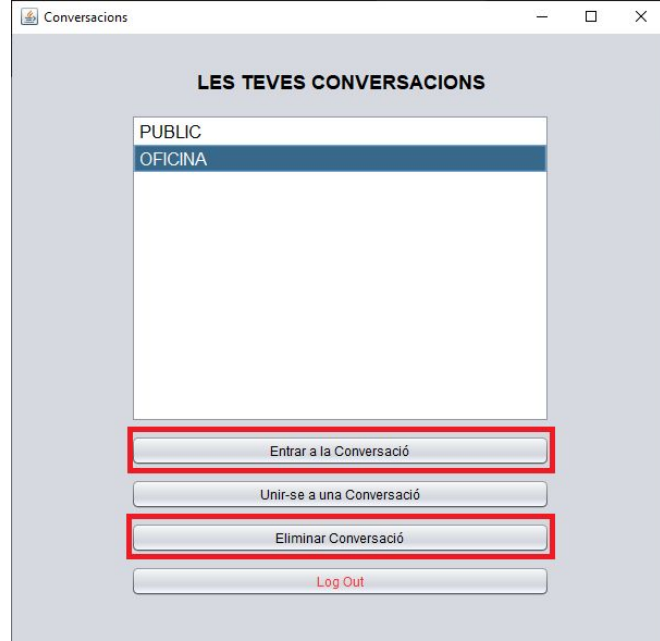
# Converses

## 4) Entrar a la conversa o eliminar conversa



```
private void deleteXatActionPerformed(java.awt.event.ActionEvent evt) {  
    String xatSeleccionado = messageList.getSelectedValue();  
    Document filtro = new Document("nom", xatSeleccionado);  
    Document chatDoc = collection3.find(filtro).first();  
    String id_xat;  
    if (chatDoc != null) {  
        id_xat = chatDoc.getString("_id");  
    } else {  
        id_xat = "";  
    }  
    if (xatSeleccionado != null) {  
        Document filtro2 = new Document("usuari", usuari);  
        Document update = new Document("$pull", new Document("xats", id_xat));  
        collection2.updateOne(filtro2, update);  
        recarregarConversacions();  
    }  
}
```

```
private void entrarXatActionPerformed(java.awt.event.ActionEvent evt) {  
    if(xat != null){  
        String xatSeleccionado = messageList.getSelectedValue();  
  
        if (xatsNom.contains(xatSeleccionado)) {  
            dispose();  
            new WhatsappVista(usuari, xat, isAdmin, filtrouser).setVisible(true);  
        }else{  
            JOptionPane.showMessageDialog(null, "No estàs unit al xat seleccionat.", "Error", JOptionPane.ERROR_MESSAGE);  
        }  
    }else{  
        JOptionPane.showMessageDialog(null, "No has seleccionat cap xat.", "Error", JOptionPane.ERROR_MESSAGE);  
    }  
}
```



## 4-Funcions del Xat

### 1) Enviar i Rebre Missatge

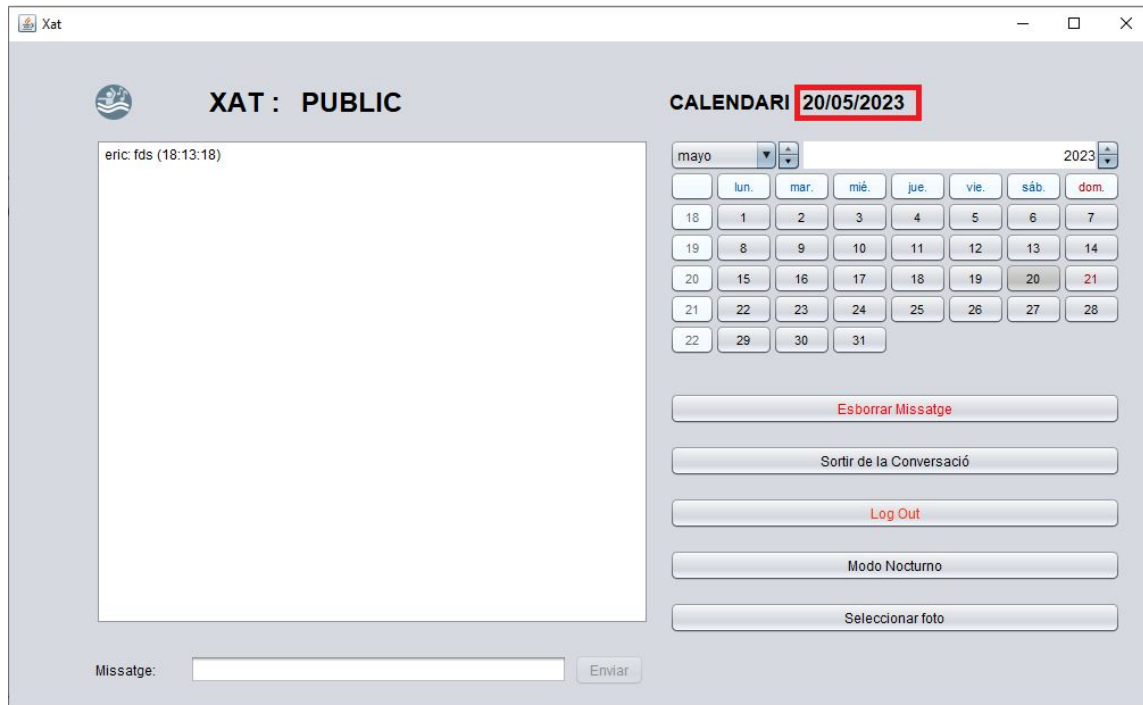


```
private void sendButtonActionPerformed(java.awt.event.ActionEvent evt) {  
    if(missatge.getText().isEmpty())  
        return;  
  
    String user = usuari;  
    String message = missatge.getText();  
    String dateStr = horaFormat.format(new Date());  
    Document doc = new Document("user", user)  
        .append("missatge", message)  
        .append("hora", new Date())  
        .append("xat", nomxat.getText());  
    collection.insertOne(doc);  
    if(selectedDate != new Date()){  
    }else{  
        messageListModel.addElement(user + ": " + message + " (" + dateStr + ")");  
    }  
    missatge.setText("");  
}
```



# Funcions del Xat

## 2) Mostrar missatges del dia seleccionat



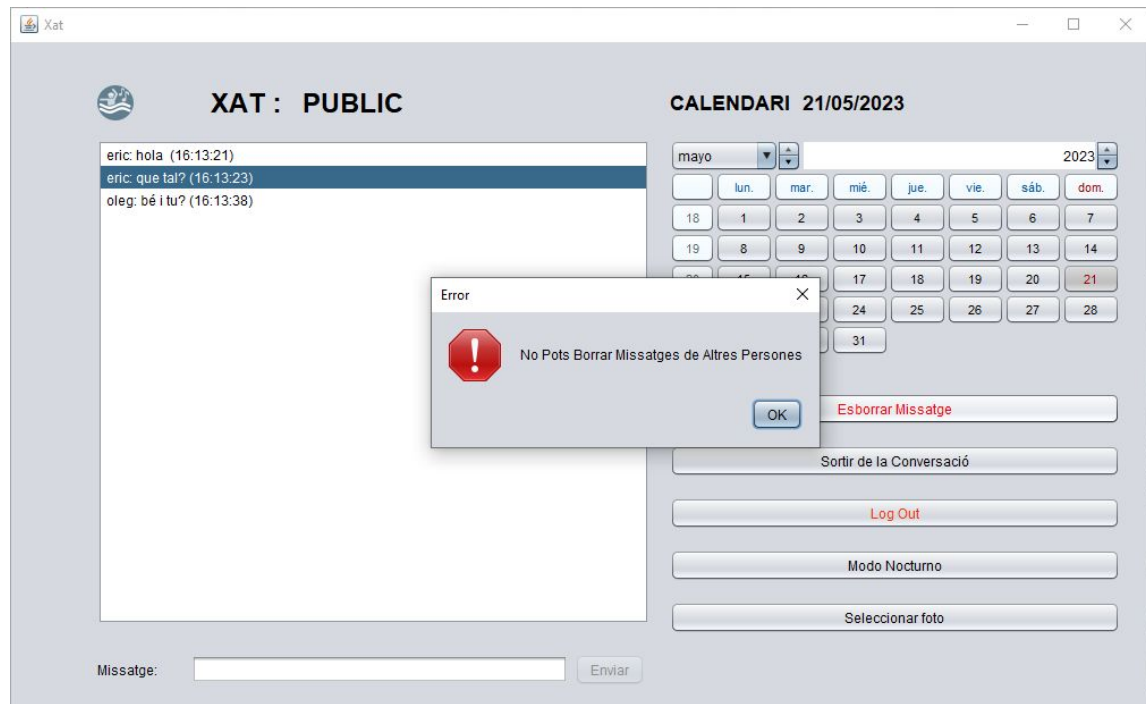
# Funcions del Xat

## 2) Mostrar missatges del dia seleccionat

```
private void jCalendar1PropertyChange(java.beans.PropertyChangeEvent evt) {  
  
    if ("calendar".equals(evt.getPropertyName())) {  
        selectedDate = jCalendar1.getCalendar().getTime();  
        // Usa la fecha seleccionada en lo que necesites hacer a continuación  
        SimpleDateFormat dateFormat = new SimpleDateFormat("dd/MM/yyyy");  
  
        String dateStr = dateFormat.format(selectedDate);  
        dia.setText(dateStr);  
  
        // Crear una consulta para buscar los mensajes con la fecha seleccionada  
  
        Calendar calendar = Calendar.getInstance();  
        calendar.setTime(selectedDate);  
        calendar.set(Calendar.HOUR_OF_DAY, 0);  
        calendar.set(Calendar.MINUTE, 0);  
        calendar.set(Calendar.SECOND, 0);  
        Date startOfDay = calendar.getTime();  
        calendar.set(Calendar.HOUR_OF_DAY, 23);  
        calendar.set(Calendar.MINUTE, 59);  
        calendar.set(Calendar.SECOND, 59);  
        Date endOfDay = calendar.getTime();  
  
        // Añadir el filtro a la consulta existente  
        query.put("hora", new BasicDBObject("$gte", startOfDay).append("$lte", endOfDay));  
        query.put("xat", new Document("$eq", xat));  
  
        // Obtener los mensajes que coinciden con la consulta  
        FindIterable<Document> messages = collection.find(query);  
  
        // Añadir los mensajes al modelo de la lista  
        messageListModel.clear();  
        for (Document message : messages) {  
            String user = message.getString("user");  
            String text = message.getString("missatge");  
            String messageDateStr = horaFormat.format(message.getDate("hora"));  
            messageListModel.addElement(user + ": " + text + " (" + messageDateStr + ")");  
        }  
    }  
}
```

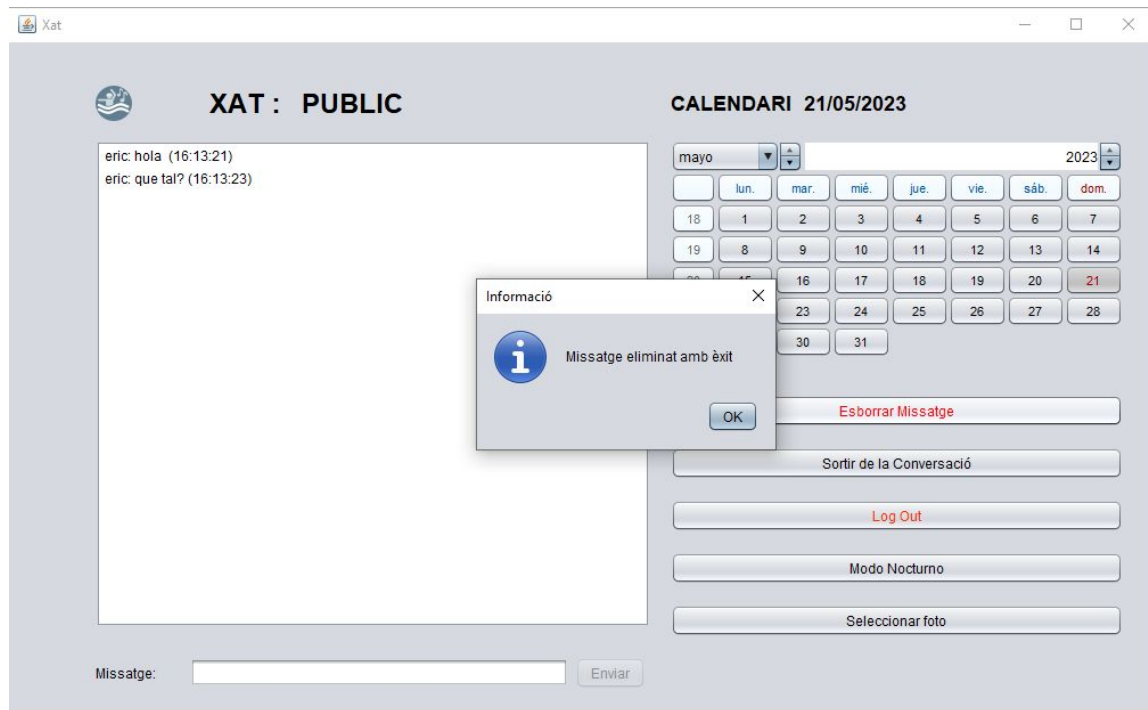
# Funcions del Xat

## 3) Eliminar Missatges



# Funcions del Xat

## 3) Eliminar Missatges



# Funcions del Xat

## 3) Eliminar Missatges



```
messageList.addListSelectionListener(new ListSelectionListener() {
    @Override
    public void valueChanged(ListSelectionEvent e) {
        if (!e.getValueIsAdjusting()) {
            int index = messageList.getSelectedIndex();
            if (index != -1) {
                String selectedMessage = messageList.getModel().getElementAt(index);
                String[] parts = selectedMessage.split(":");

                if (parts.length > 1) {
                    usuariEl = parts[0];
                    missatgeEl = parts[1].substring(0, parts[1].indexOf("(")).trim();
                    horaEl = selectedMessage.substring(selectedMessage.lastIndexOf("(") + 1, selectedMessage.lastIndexOf(")"));
                }
            }
        }
    }
});
```

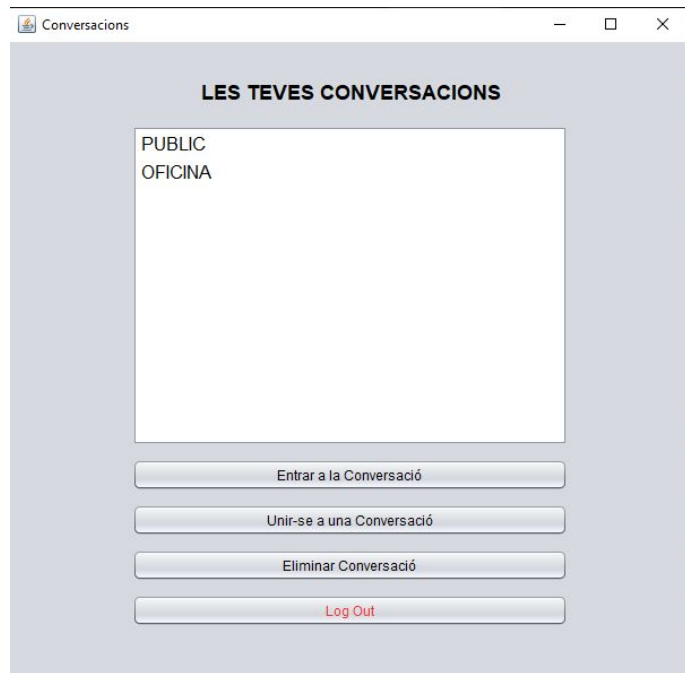
```
private void jButton1MouseClicked(java.awt.event.MouseEvent evt) {
    if(usuariEl == null || usuariEl == "")
        JOptionPane.showMessageDialog(null, "No has seleccionat cap missatge", "Error", JOptionPane.ERROR_MESSAGE);
    else{
        if(usuariEl.equals(usuari)){
            String diaMissatgeString = avui + " " + horaEl;
            SimpleDateFormat sdf = new SimpleDateFormat("dd/MM/yyyy HH:mm:ss");
            try {
                Date diaMissatge = sdf.parse(diaMissatgeString);
                BasicDBObject query = new BasicDBObject();
                query.put("user", usuariEl);
                query.put("missatge", missatgeEl);
                query.put("hora", new BasicDBObject("$gte", diaMissatge));
                collection.deleteOne(query);

                JOptionPane.showMessageDialog(null, "Missatge eliminat amb èxit", "Informació", JOptionPane.INFORMATION_MESSAGE);
                usuariEl = "";
            } catch (ParseException e) {
                e.printStackTrace();
            }
        }else{
            JOptionPane.showMessageDialog(null, "No Pots Borrar Missatges de Altres Persones", "Error", JOptionPane.ERROR_MESSAGE);
        }
    }
}
```



# Funcions del Xat

## 4) Canviar Conversació



```
private void sortirConvActionPerformed(java.awt.event.ActionEvent evt) {  
  
    timer.stop();  
    dispose();  
    new chats(usuari, isAdmin, filtrouser).setVisible(true);  
  
}
```

# Funcions del Xat

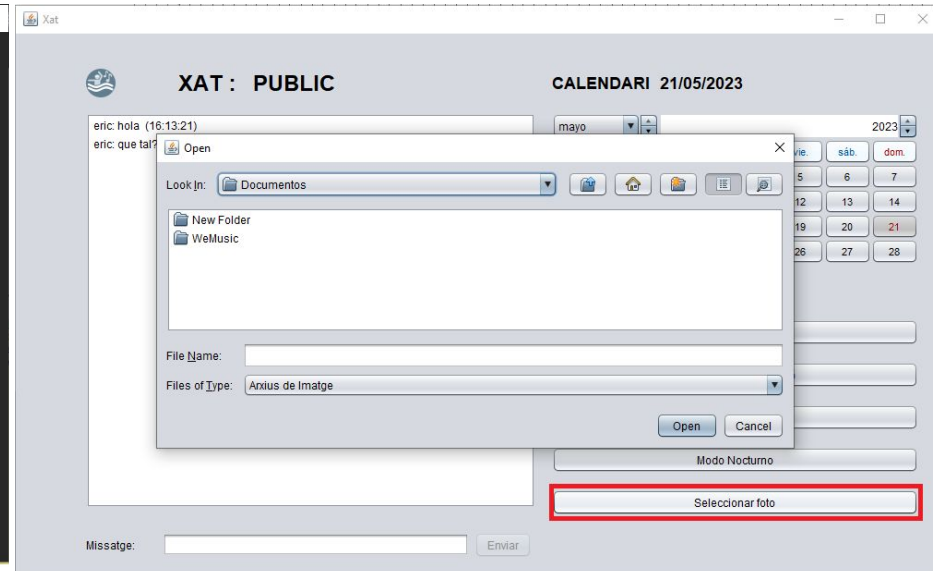
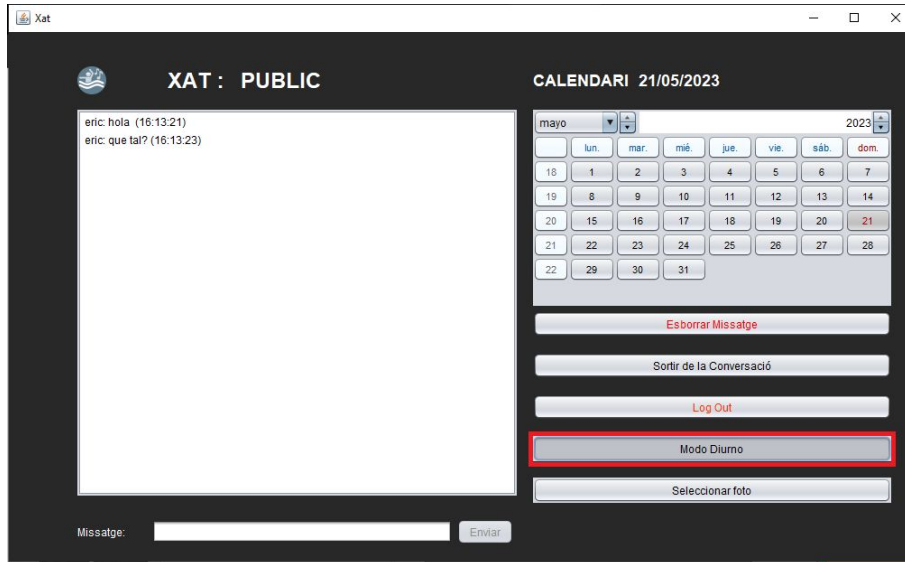
## 5) Log Out



```
private void logOutActionPerformed(java.awt.event.ActionEvent evt) {  
    setVisible(false);  
    new login().setVisible(true);  
}
```

# 5-Beans Propis

## 1) Interfície



# Beans Propis

## 2) Codi

```
package bean_final;

import javax.swing.*;

public class Bean_prova extends JPanel {
    private JToggleButton toggleButton;
    private Color backgroundColor;
    private Color newColor;
    private Color newColor2;
    private boolean isNightMode;
    private List<ActionListener> modeChangeListener;

    public Bean_prova() {
        setLayout(new BorderLayout());
        newColor = null;
        toggleButton = new JToggleButton("Mode Nocturn");
        toggleButton.addActionListener(new ActionListener() {
            @Override
            public void actionPerformed(ActionEvent e) {
                isNightMode = toggleButton.isSelected();
                if (isNightMode) {
                    newColor = new Color(40, 40, 40);
                    newColor2 = Color.WHITE;
                    toggleButton.setText("Mode Diurn");
                    fireModeChangeEvent();
                } else {
                    newColor = null;
                    newColor2 = Color.BLACK;
                    toggleButton.setText("Mode Nocturn");
                    fireModeChangeEvent();
                }
            }
        });

        modeChangeListener = new ArrayList<>();
        add(toggleButton, BorderLayout.CENTER);
    }

    public Color getMode() {
        return newColor;
    }

    public Color getMode2() {
        return newColor2;
    }

    public void addModeChangeListener(ActionListener listener) {
        modeChangeListener.add(listener);
    }

    public void removeModeChangeListener(ActionListener listener) {
        modeChangeListener.remove(listener);
    }

    private void fireModeChangeEvent() {
        ActionEvent event = new ActionEvent(this, ActionEvent.ACTION_PERFORMED, "modeChange");
        for (ActionListener listener : modeChangeListener) {
            listener.actionPerformed(event);
        }
    }
}
```

```
package bean_photo;

import javax.swing.*;

public class UploadPhoto extends JPanel {
    private JButton uploadButton;
    private byte[] selectedFileBytes;
    private ActionListener actionListener;

    public UploadPhoto() {
        setLayout(new BorderLayout());

        uploadButton = new JButton("Seleccionar foto");
        uploadButton.addActionListener(new ActionListener() {
            @Override
            public void actionPerformed(ActionEvent e) {
                JFileChooser fileChooser = new JFileChooser();

                FileNameExtensionFilter filter = new FileNameExtensionFilter("Arxius de Imatge", "png", "jpg");
                fileChooser.setFileFilter(filter);

                int result = fileChooser.showOpenDialog(UploadPhoto.this);

                if (result == JFileChooser.APPROVE_OPTION) {
                    File selectedFile = fileChooser.getSelectedFile();
                    selectedFileBytes = readFileBytes(selectedFile);

                    if (actionListener != null) {
                        actionListener.actionPerformed(e);
                    }
                }
            }
        });
        add(uploadButton);
    }

    public byte[] getFileBytes() {
        return selectedFileBytes;
    }

    public void addActionListener(ActionListener listener) {
        actionListener = listener;
    }

    private byte[] readFileBytes(File file) {
        try {
            FileInputStream fis = new FileInputStream(file);
            ByteArrayOutputStream bos = new ByteArrayOutputStream();

            byte[] buffer = new byte[1024];
            int bytesRead;
            while ((bytesRead = fis.read(buffer)) != -1) {
                bos.write(buffer, 0, bytesRead);
            }

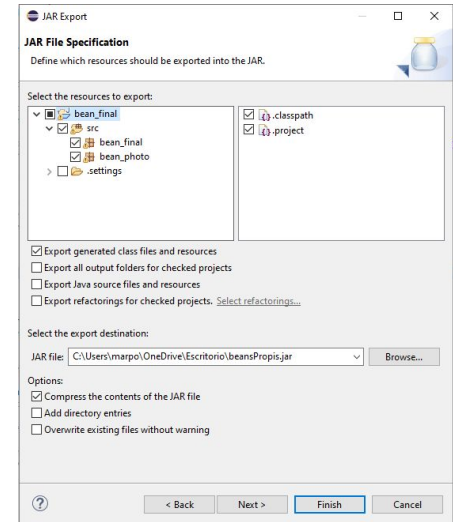
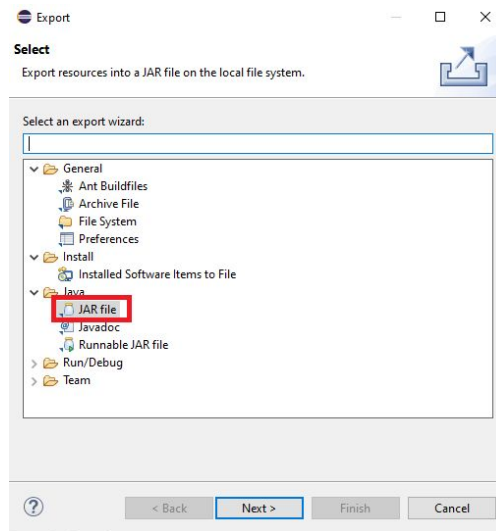
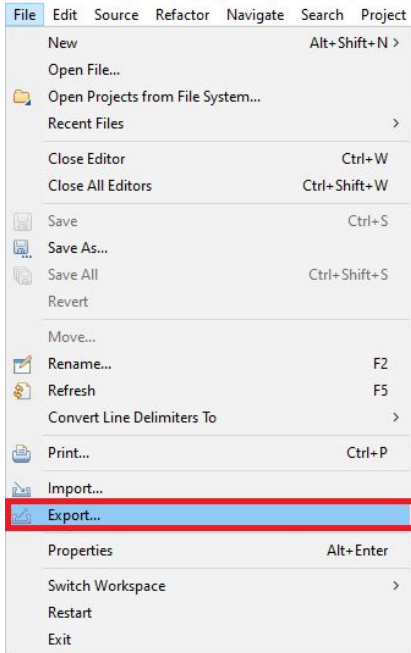
            fis.close();
            bos.close();

            return bos.toByteArray();
        }
    }
}
```

# Beans Propis

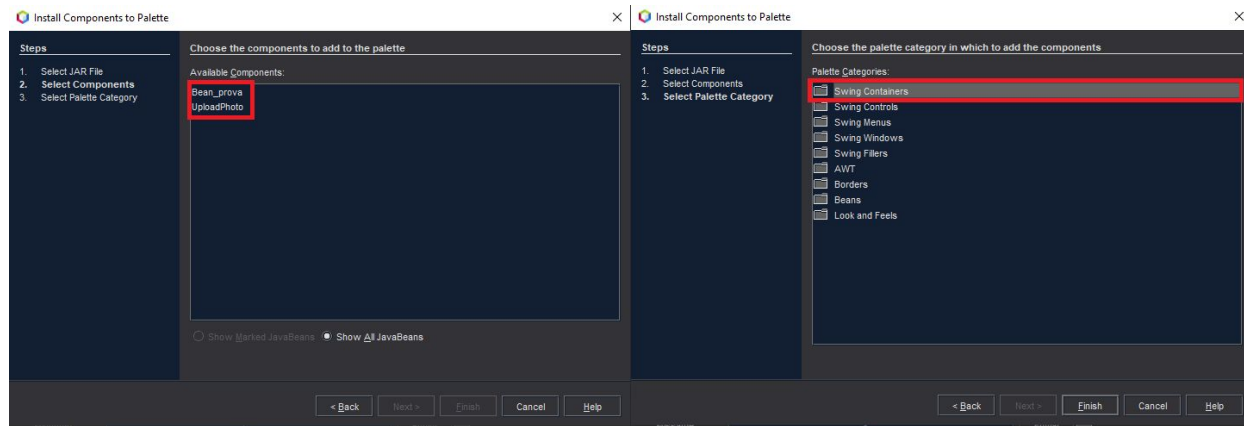
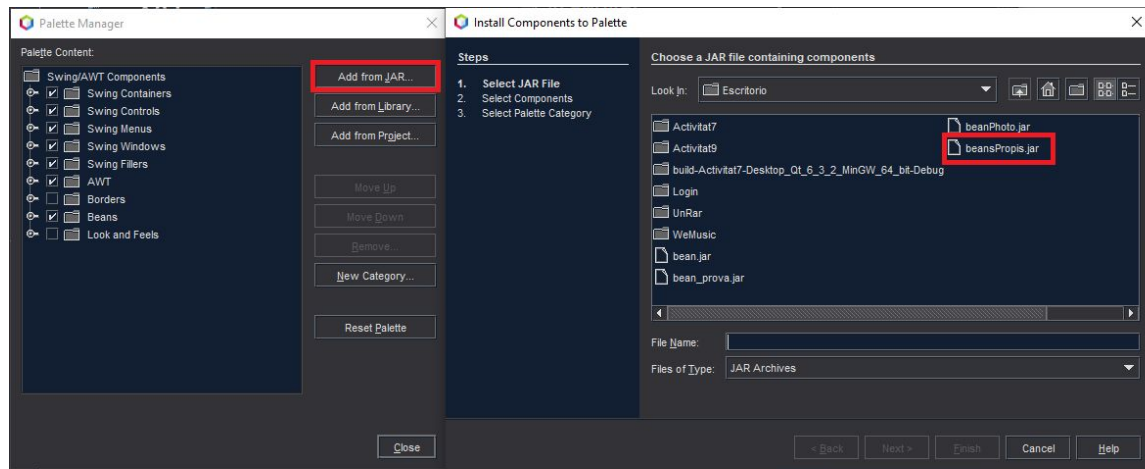
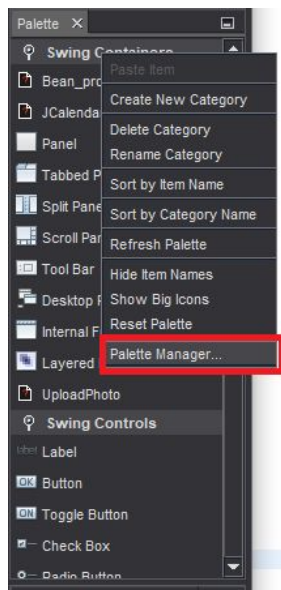
## 3) Generar .jar

bean3 - bean\_final/src/bean\_photo/UploadPhoto.java - Ecl



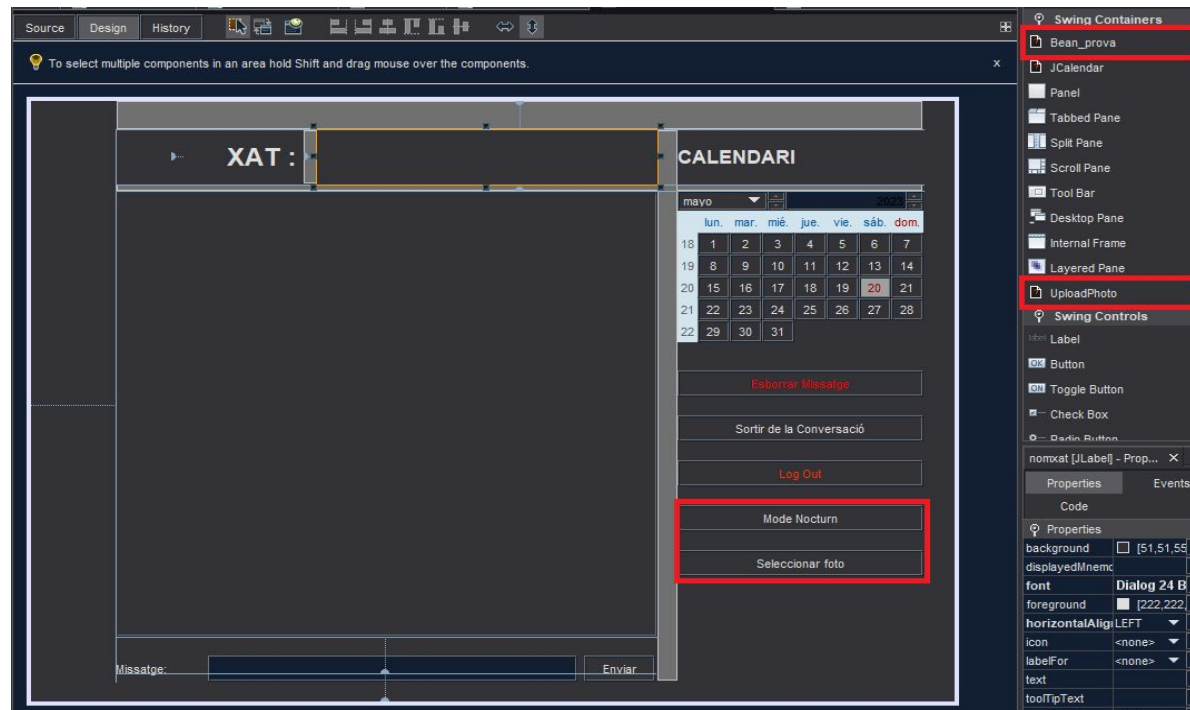
# Beans Propis

## 4) Importar .jar



# Beans Propis

## 5) Importar .jar



# MOLTES GRÀCIES

Preguntes?

