POO AVANCE

Projet Java

01/05/2023

—

Mejri Yassmine

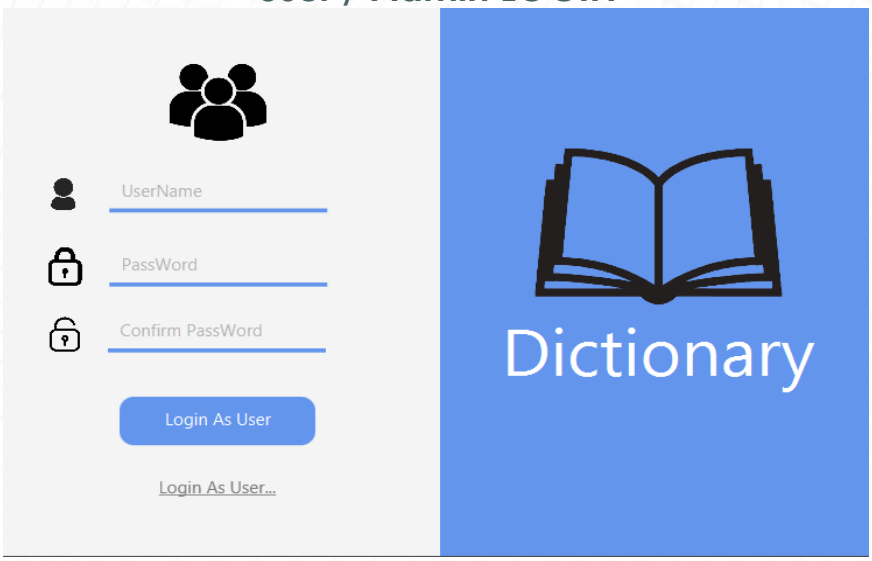
—

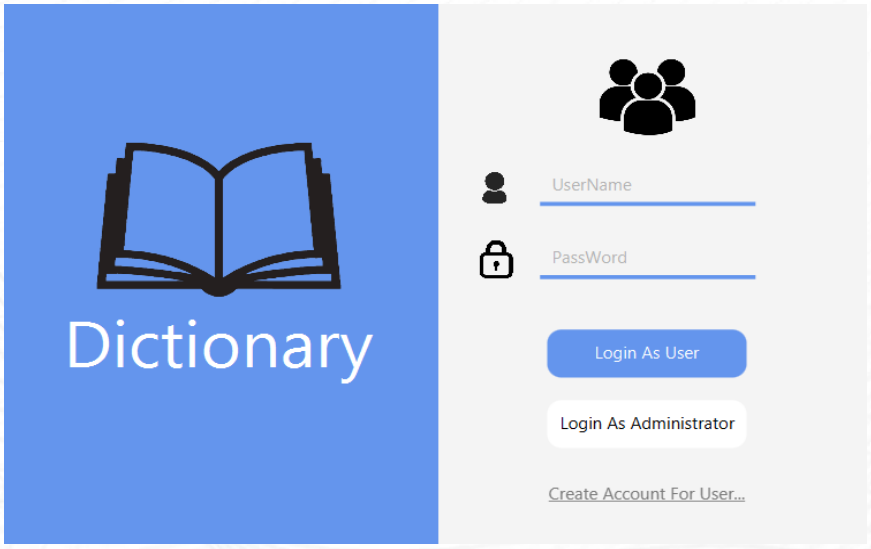
Bouhlel Dhouha

Interfaces With Scene Builder

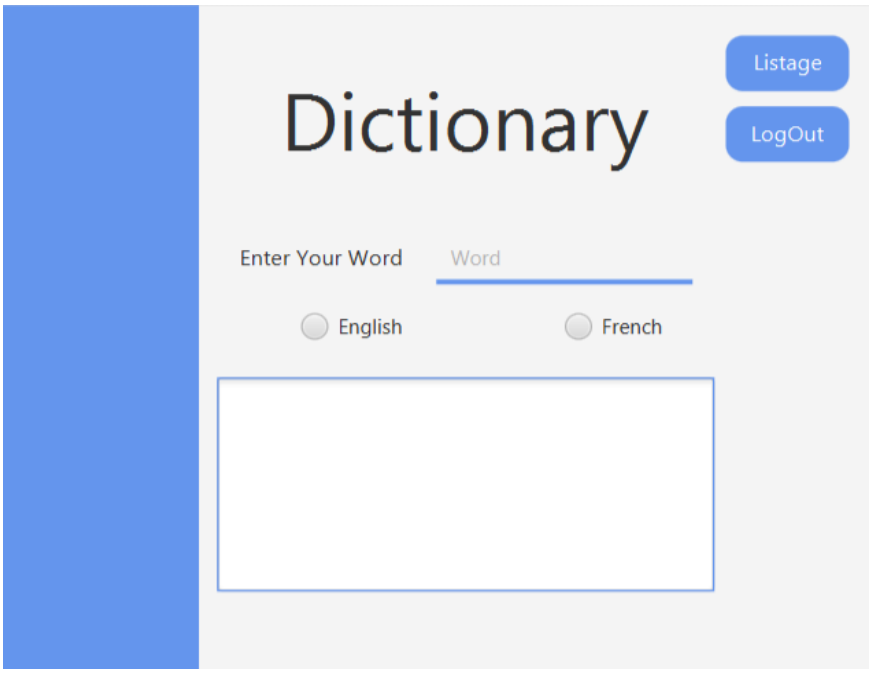
:

User / Admin LOGIN

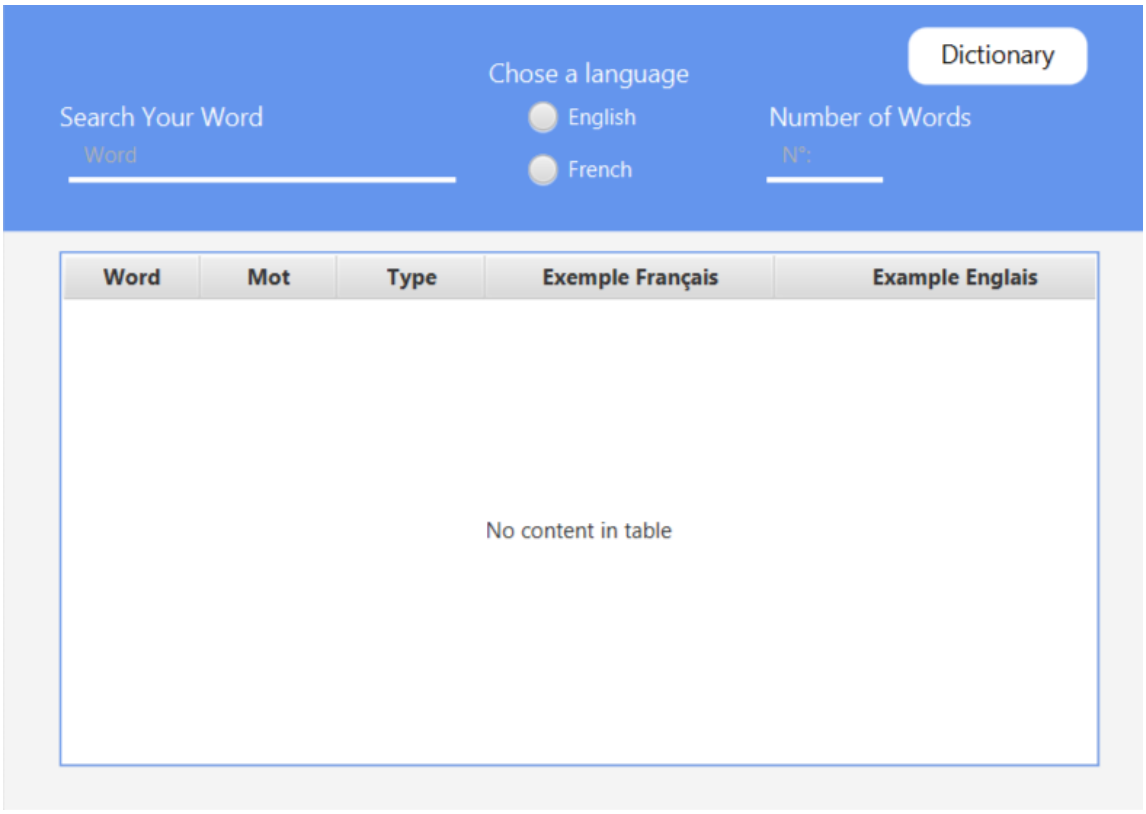




Dictionary Interface

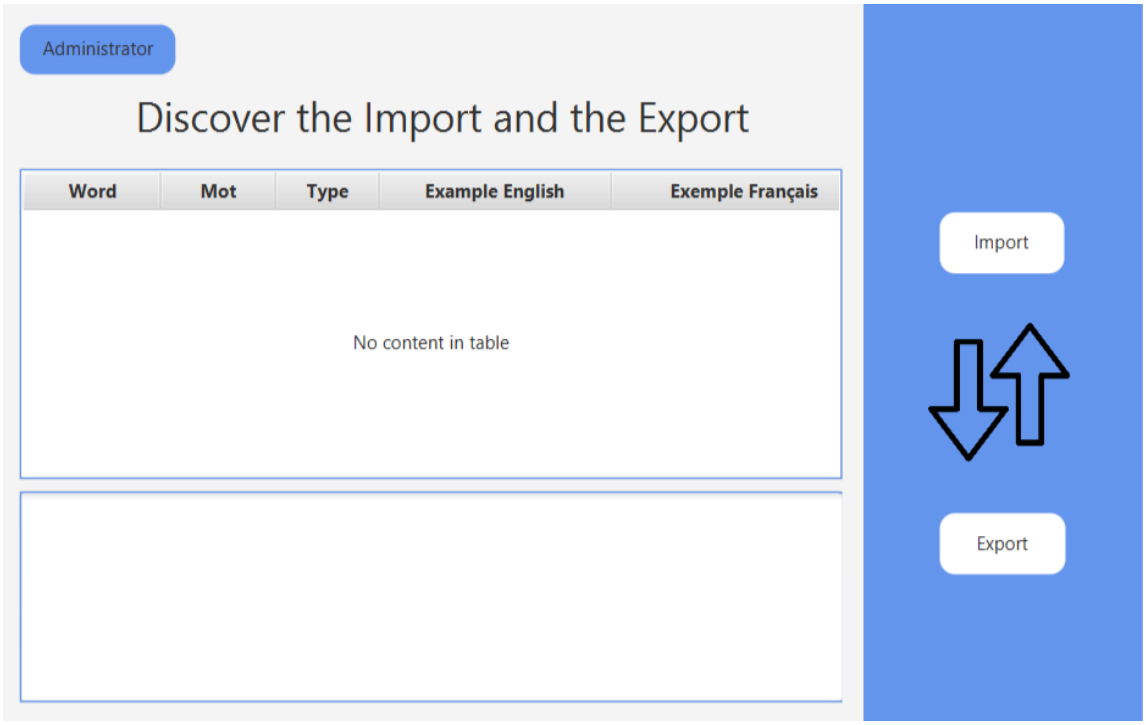


Listage Interface



Admin Interface

Import/Export Interface



- ## Connection to the data base:

App.java | connectionOracle.java

dictionary > src > connectionOracle.java > ...

```java
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.SQLException;

public class connectionOracle {


    static String user = "SYSTEM";
    static String password = "0000";
    static String url = "jdbc:oracle:thin:@localhost:1521:xe";
    static String driver ="oracle.jdbc.driver.OracleDriver";


    public static Connection getCon(){
        Connection con = null;
        try {
            Class.forName(driver);
            try {
                con = DriverManager.getConnection(url,user,password);
                System.out.println(x:"Connected with connection oracle"
            } catch (SQLException e) {
                throw new RuntimeException(e);
            }
        } catch (ClassNotFoundException e) {
            throw new RuntimeException(e);
        }
        return con;
    }
}
```

- ## Creation of Tables With Oracle:

```sql
create table english (mot_e varchar2(50),type_e varchar2(50),exemple_e varchar2(50),synonyme_e varchar2(50));
select * from english;

create table french (mot_f varchar2(50),type_f varchar2(50),exemple_f varchar2(50),synonyme_f varchar2(50));
select * from french;

insert into english values('see','verb','he cant see','voir');
insert into french values('voir','verbe','il ne voit rien','see');
```

- ## Classes:

```java
public class French {

    private String Mot_F;
    private String Type_F;
    private String Exemple_F;
    private String Synonyme_F;


    public String getMot_F() {
        return Mot_F;
    }
    public void setMot_F(String mot_F) {
        Mot_F = mot_F;
    }
    public String getType_F() {
        return Type_F;
    }
    public void setType_F(String type_F) {
        Type_F = type_F;
    }
    public String getExemple_F() {
        return Exemple_F;
    }
    public void setExemple_F(String exemple_F) {
        Exemple_F = exemple_F;
    }
    public String getSynonyme_F() {
        return Synonyme_F;
    }
    public void setSynonyme_F(String synonyme_F) {
        Synonyme_F = synonyme_F;
    }

}
```

```java
public class English {

    private String Mot_E;
    private String Type_E;
    private String Exemple_E;
    private String Synonyme_E;


    public String getMot_E() {
        return Mot_E;
    }
    public void setMot_E(String mot_E) {
        Mot_E = mot_E;
    }
    public String getType_E() {
        return Type_E;
    }
    public void setType_E(String type_E) {
        Type_E = type_E;
    }
    public String getExemple_E() {
        return Exemple_E;
    }
    public void setExemple_E(String exemple_E) {
        Exemple_E = exemple_E;
    }
    public String getSynonyme_E() {
        return Synonyme_E;
    }
    public void setSynonyme_E(String synonyme_E) {
        Synonyme_E = synonyme_E;
    }

}
```

- ## Translation:

```java
@FXML
void btnEc(ActionEvent event) {
    String query = "Select * from English,French where Synonyme_E='"+word.getText()+"'";
    con = connectionOracle.getCon();
    try{
        stmt = con.prepareStatement(query);
        rs= stmt.executeQuery();
        while(rs.next()){
            disc.setText(" Mot: "+rs.getString(columnLabel:"Mot_E")+"\n Type : "+rs.getString(columnLabel:"type_E")+"\n Exemple Anglais : "
            +rs.getString(columnLabel:"Exemple_E")+"\n Exemple Français : "+rs.getString(columnLabel:"Exemple_F"));
        }
        disc.setEditable(false);
        stmt.executeUpdate();
    }catch(SQLException e){
        throw new RuntimeException(e);
    }
}

@FXML
void btnFc(ActionEvent event) {
    String query = "Select * from English,French where Synonyme_F='"+word.getText()+"'";
    con = connectionOracle.getCon();
    try{
        stmt = con.prepareStatement(query);
        rs= stmt.executeQuery();
        while(rs.next()){
            disc.setText(" Word: "+rs.getString(columnLabel:"Mot_F")+"\n Type : "+rs.getString(columnLabel:"type_F")+"\n French Example : "
            +rs.getString(columnLabel:"Exemple_F")+"\n English Example  : "+rs.getString(columnLabel:"Exemple_E"));
        }
        disc.setEditable(false);
        stmt.executeUpdate();
    }catch(SQLException e){
        throw new RuntimeException(e);
    }
}
```

- **Getting all the translation of both languages:**

```
public ObservableList<English> getEnglish(){
    ObservableList<English> english = FXCollections.observableArrayList();

    String query = "Select * from English";
    con = connectionOracle.getCon();
    try{
        stmt = con.prepareStatement(query);
        rs= stmt.executeQuery();
        while(rs.next()){
            English en = new English();
            en.setMot_E(rs.getString(columnLabel:"Mot_E"));
            en.setType_E(rs.getString(columnLabel:"Type_E"));
            en.setExemple_E(rs.getString(columnLabel:"Exemple_E"));
            en.setSynonyme_E(rs.getString(columnLabel:"Synonyme_E"));
            english.add(en);
        }
    }catch(SQLException e){
        throw new RuntimeException(e);
    }
    return english;
}

public void showEnglish(){
    ObservableList<English> list = getEnglish();
    tbl1.setItems(list);
    col_1.setCellValueFactory(new PropertyValueFactory<English, String>("Mot_E"));
    col_2.setCellValueFactory(new PropertyValueFactory<English, String>("Type_E"));
    col_3.setCellValueFactory(new PropertyValueFactory<English, String>("Exemple_E"));
    col_4.setCellValueFactory(new PropertyValueFactory<English, String>("Synonyme_E"));
}
```

```
public ObservableList<French> getFrench(){
    ObservableList<French> french = FXCollections.observableArrayList();
    String query = "Select * from French";
    con = connectionOracle.getCon();
    try{
        stmt = con.prepareStatement(query);
        rs= stmt.executeQuery();
        while(rs.next()){
            French fr = new French();
            fr.setMot_F(rs.getString(columnLabel:"Mot_F"));
            fr.setType_F(rs.getString(columnLabel:"Type_F"));
            fr.setExemple_F(rs.getString(columnLabel:"Exemple_F"));
            fr.setSynonyme_F(rs.getString(columnLabel:"Synonyme_F"));
            french.add(fr);
        }

    }catch(SQLException e){
        throw new RuntimeException(e);
    }
    return french;
}
public void showFrench(){
    ObservableList<French> list = getFrench();
    tbl2.setItems(list);
    col_11.setCellValueFactory(new PropertyValueFactory<French, String>("Mot_F"));
    col_22.setCellValueFactory(new PropertyValueFactory<French, String>("Type_F"));
    col_33.setCellValueFactory(new PropertyValueFactory<French, String>("Exemple_F"));
    col_44.setCellValueFactory(new PropertyValueFactory<French, String>("Synonyme_F"));
}
```

- **Setting New translation of both languages:**

```
@FXML
void btn2c(ActionEvent event) {
    String insertE = "insert into English(Mot_E,Type_E,Exemple_E,Synonyme_E) values(?,?,?,?)";
    String insertF = "insert into French(Mot_F,Type_F,Exemple_F,Synonyme_F) values(?,?,?,?)";
    con = connectionOracle.getCon();

    try{
        stmt = con.prepareStatement(insertE);
        stmt.setString(parameterIndex:1, txt1.getText());
        stmt.setString(parameterIndex:2, txt2.getText());
        stmt.setString(parameterIndex:3, txt3.getText());
        stmt.setString(parameterIndex:4, txt4.getText());
        stmt.executeUpdate();


        stmt1 = con.prepareStatement(insertF);
        stmt1.setString(parameterIndex:1, txt4.getText());
        stmt1.setString(parameterIndex:2, txt5.getText());
        stmt1.setString(parameterIndex:3, txt6.getText());
        stmt1.setString(parameterIndex:4, txt1.getText());
        stmt1.executeUpdate();

        showEnglish();
        showFrench();
        clear();
    }catch (SQLException e){
        throw new RuntimeException(e);
    }
}
```

- **Updating translations:**

```
@FXML
void btn3c(ActionEvent event) {
    String updateE="update English set mot_E=?, type_E=?, exemple_E=?, synonyme_E=? where mot_E=?";
    String updateF="update French set mot_F=?, type_F=?, exemple_F=?, synonyme_F=? where mot_F=?";
    con=connectionOracle.getCon();
    try{
        stmt=con.prepareStatement(updateE);
        stmt.setString(parameterIndex:1, txt1.getText());
        stmt.setString(parameterIndex:2, txt2.getText());
        stmt.setString(parameterIndex:3, txt3.getText());
        stmt.setString(parameterIndex:4, txt4.getText());

        stmt.setString(parameterIndex:5,txt1.getText() );
        stmt.executeUpdate();
        stmt1 = con.prepareStatement(updateF);
        stmt1.setString(parameterIndex:1, txt4.getText());
        stmt1.setString(parameterIndex:2, txt5.getText());
        stmt1.setString(parameterIndex:3, txt6.getText());
        stmt1.setString(parameterIndex:4, txt1.getText());

        stmt1.setString(parameterIndex:5, txt4.getText());
        stmt1.executeUpdate();
        showEnglish();
        showFrench();


    }catch(SQLException e){
        throw new RuntimeException();

    }

}
```

- **Deleting translations:**

```
@FXML
void btn4c(ActionEvent event) {
    String deleteE = "delete from English where Mot_E=?";
    String deleteF = "delete from French where Mot_F=?";
    con = connectionOracle.getCon();
    try{
        stmt = con.prepareStatement(deleteE);
        stmt.setString(parameterIndex:1,txt1.getText());
        stmt.executeQuery();

        stmt1 = con.prepareStatement(deleteF);
        stmt1.setString(parameterIndex:1,txt4.getText());
        stmt1.executeQuery();
        showFrench();
        showEnglish();
        clear();
    }catch(SQLException e){
        throw new RuntimeException(e);
    }
}

void clear(){
    txt1.setText(null);
    txt2.setText(null);
    txt3.setText(null);
    txt4.setText(null);
    txt5.setText(null);
    txt6.setText(null);
    btn2.setDisable(false);
}
```

- **Getting Data:**

```
@FXML
void getDataE(MouseEvent event) {
    English en =tbl1.getSelectionModel().getSelectedItem();

    txt1.setText(en.getMot_E());
    txt2.setText(en.getType_E());
    txt3.setText(en.getExemple_E());

    btn2.setDisable(true);
}

@FXML
void getDataF(MouseEvent event) {
    French fr =tbl2.getSelectionModel().getSelectedItem();
    txt4.setText(fr.getMot_F());
    txt5.setText(fr.getType_F());
    txt6.setText(fr.getExemple_F());

    btn2.setDisable(true);
}
```

- ## Class Objet:

App.java | Objet.java

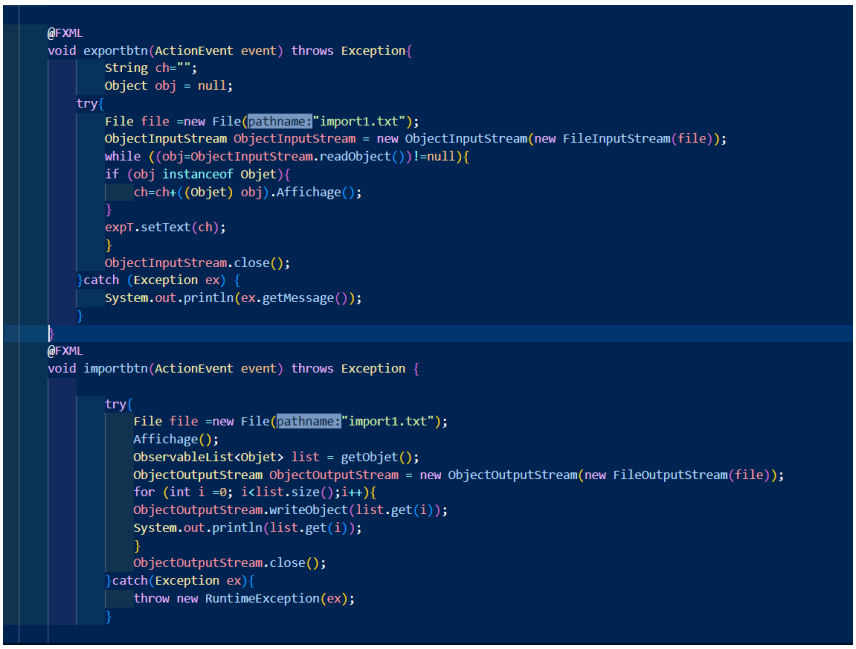
dictionary > src > Objet.java > Objet > Exemple_F

```java
import java.io.Serializable;

public class Objet implements Serializable {
    private String Mot_E;
    private String Mot_F;
    private String Type_E;
    private String Exemple_E;
    private String Exemple_F;
    public Objet() {
    }

    public Objet(String mot_E, String mot_F, String type_E, String exemple_E, String exemple_F) {
        Mot_E = mot_E;
        Mot_F = mot_F;
        Type_E = type_E;
        Exemple_E = exemple_E;
        Exemple_F = exemple_F;
    }

    public String getMot_E() {
        return Mot_E;
    }
    public void setMot_E(String mot_E) {
        Mot_E = mot_E;
    }

    public String getMot_F() {
        return Mot_F;
    }
    public void setMot_F(String mot_F) {
        Mot_F = mot_F;
    }

    public String getType_E() {
        return Type_E;
    }
    public void setType_E(String type_E) {
```

- ## Getting object from data and write it in a list:

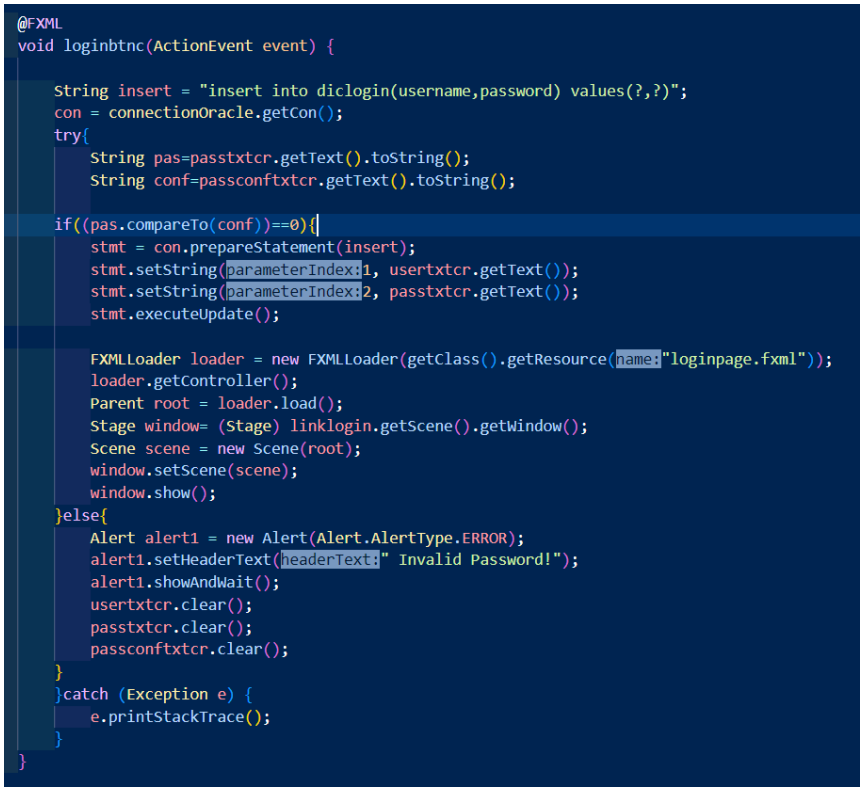
```java
public ObservableList<Objet> getObjet(){
    ObservableList<Objet> object = FXCollections.observableArrayList();
    String query = "Select * from French,English where mot_E=synonyme_F and mot_F=synonyme_E";
    con = connectionOracle.getCon();
    try{
        stmt = con.prepareStatement(query);
        rs= stmt.executeQuery();
        while(rs.next()){
            Objet ob = new Objet(rs.getString(columnLabel:"Mot_E"), rs.getString(columnLabel:"Mot_F"), rs.getString(columnLabel:"Type_F")
            ,rs.getString(columnLabel:"Exemple_E"),rs.getString(columnLabel:"Exemple_F"));
            object.add(ob);
        }
    }catch(SQLException e){
        throw new RuntimeException(e);
    }
    return object;
}


public void Affichage(){
    ObservableList<Objet> list = getObjet();
    aff.setItems(list);
    word.setCellValueFactory(new PropertyValueFactory<Objet, String>("Mot_E"));
    mot.setCellValueFactory(new PropertyValueFactory<Objet, String>("Mot_F"));
    type.setCellValueFactory(new PropertyValueFactory<Objet, String>("Type_E"));
    expE.setCellValueFactory(new PropertyValueFactory<Objet, String>("Exemple_E"));
    expF.setCellValueFactory(new PropertyValueFactory<Objet, String>("Exemple_F"));
}
```

- ## Export and import data:



```
@FXML
void exportbtn(ActionEvent event) throws Exception{
        String ch="";
        Object obj = null;
    try{
        File file =new File(pathname:"import1.txt");
        ObjectInputStream ObjectInputStream = new ObjectInputStream(new FileInputStream(file));
        while ((obj=ObjectInputStream.readObject())!=null){
        if (obj instanceof Objet){
            ch=ch+((Objet) obj).Affichage();
        }
        expT.setText(ch);
        }
        ObjectInputStream.close();
    }catch (Exception ex) {
        System.out.println(ex.getMessage());
    }
}
@FXML
void importbtn(ActionEvent event) throws Exception {

        try{
            File file =new File(pathname:"import1.txt");
            Affichage();
            ObservableList<Objet> list = getObjet();
            ObjectOutputStream ObjectOutputStream = new ObjectOutputStream(new FileOutputStream(file));
            for (int i =0; i<list.size();i++){
            ObjectOutputStream.writeObject(list.get(i));
            System.out.println(list.get(i));
            }
            ObjectOutputStream.close();
        }catch(Exception ex){
            throw new RuntimeException(ex);
        }
```

- ## Creating accounts (Users):



```
@FXML
void loginbtnc(ActionEvent event) {

    String insert = "insert into diclogin(username,password) values(?,?)";
    con = connectionOracle.getCon();
    try{
        String pas=passtxtcr.getText().toString();
        String conf=passconftxtcr.getText().toString();

    if((pas.compareTo(conf))==0){
        stmt = con.prepareStatement(insert);
        stmt.setString(parameterIndex:1, usertxtcr.getText());
        stmt.setString(parameterIndex:2, passtxtcr.getText());
        stmt.executeUpdate();

        FXMLLoader loader = new FXMLLoader(getClass().getResource(name:"loginpage.fxml"));
        loader.getController();
        Parent root = loader.load();
        Stage window= (Stage) linklogin.getScene().getWindow();
        Scene scene = new Scene(root);
        window.setScene(scene);
        window.show();
    }else{
        Alert alert1 = new Alert(Alert.AlertType.ERROR);
        alert1.setHeaderText(headerText:" Invalid Password!");
        alert1.showAndWait();
        usertxtcr.clear();
        passtxtcr.clear();
        passconftxtcr.clear();
    }
    }catch (Exception e) {
        e.printStackTrace();
    }
}
```

- **Login as user:**

```java
@FXML
void loginbtnuc(ActionEvent event) {

    String query = "Select * from login where username='"+usertxt.getText()+ "'and password= '"+passtxt.getText()+"'";
    con = connectionOracle.getCon();
    try{
        stmt = con.prepareStatement(query);
        rs= stmt.executeQuery();
        while(rs.next()){
            if((usertxt.getText().compareTo(rs.getString(columnLabel:"username"))==0)
            && (passtxt.getText().compareTo(rs.getString(columnLabel:"password"))==0) ){
                FXMLLoader loader = new FXMLLoader(getClass().getResource(name:"user.fxml"));
                loader.getController();
                Parent root = loader.load();
                Stage window= (Stage) loginbtnu.getScene().getWindow();
                Scene scene = new Scene(root);
                window.setScene(scene);
                window.show();
            }else{
                Alert alert2 = new Alert(Alert.AlertType.ERROR);
                alert2.setHeaderText(" Invalid Username and Password!");
                alert2.showAndWait();
                usertxt.clear();
                passtxt.clear();
            }
        }
    }catch(Exception e){
        throw new RuntimeException(e);
    }

}
```

- **We used two types of files (object and text):**