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MAC190 Final Project GUI

I used JavaFX and MVC Pattern

MODEL

```
package sample.model;

public class UserInfoModel {
    private String name;
    private String username;
    private String password;
    private String dateOfBirth;

    public String getUsername() {
        return username;
    }

    public void setUsername(String username) {
        this.username = username;
    }

    public String getDateOfBirth() {
        return dateOfBirth;
    }

    public void setDateOfBirth(String dateOfBirth) {
        this.dateOfBirth = dateOfBirth;
    }

    public String getName() {
        return name;
    }
    public void setName(String name) {
        this.name = name;
    }

    public String getPassword() {
        return password;
    }
    public void setPassword(String password) {
        this.password = password;
    }

}
```

```
package sample.model;
```

```
import java.text.NumberFormat;

public class ProductModel {
    private String playerName;
    private String team;
    private double price;

    public ProductModel() {
    }

    public String getPlayerName() {
        return playerName;
    }
    public void setplayerName(String playerName) {
        this.playerName = playerName;
    }

    public void setTeam(String team) {
        this.team = team;
    }

    public double getPrice() {
        return price;
    }
    public void setPrice(double price) {
        this.price = price;
    }
    [illegible] currency sign
    public String getPriceFormatted() {
        NumberFormat currency = NumberFormat.getCurrencyInstance();
        return currency.format(getPrice());
    }

    public String getTeam() {
        return team;
    }
}
```

CONTROLLER

```
package sample.controller;

import com.jfoenix.controls.JFXButton;

import java.io.IOException;
import java.net.URL;
import java.util.ResourceBundle;

import javafx.event.ActionEvent;
import javafx.event.EventHandler;
import javafx.fxml.FXML;
import javafx.fxml.FXMLLoader;
```

```
import javafx.scene.Parent;
import javafx.scene.Scene;
import javafx.scene.control.Label;
import javafx.stage.Stage;

public class WelcomeController {

    @FXML
    private ResourceBundle resources;

    @FXML
    private URL location;

    @FXML
    private JFXButton welcomeLogin;

    @FXML
    private Label welcomeLabel;

    @FXML
    private JFXButton welcomeSignUp;


    @FXML
    void initialize() {
        //when the user clicks the welcome login button,
        welcomeLogin.setOnAction(new EventHandler<ActionEvent>() {
            @Override
            public void handle(ActionEvent event) {
                welcomeLoginSelect();

            }
        });

        welcomeSignUp.setOnAction(new EventHandler<ActionEvent>() {
            @Override
            public void handle(ActionEvent event) {
                welcomeSignUp();
            }
        });

    }

    private void welcomeLoginSelect() {

        //Get the main window(NBA Welcome Screen) and
        welcomeLogin.getScene().getWindow().hide();
        Stage logInStage = new Stage();
        try {
            Parent root =
FXMLLoader.load(getClass().getResource("/sample/view/logInScreen.fxml"));
            Scene scene = new Scene(root);
            logInStage.setScene(scene);
            logInStage.show();
        } catch (IOException e) {
```

```
                .printStackTrace();
        }
    }

        private void welcomeSignUp() {

                 indow(NBA Welcome Screen) and hide it
            welcomeLogin.getScene().getWindow().hide();
            Stage signUpStage = new Stage();
            try {
                Parent root =
FXMLLoader.load(getClass().getResource("/sample/view/signUpScreen.fxml"));
                Scene scene = new Scene(root);
                 ign Up Stage .setScene(scene);
                 ign Up Stage .show();
            } catch (IOException e) {
                e.printStackTrace();
            }


    }
}
```

```
package sample.controller;


import sample.model.UserInfoModel;

import java.util.*;
import java.io.*;
import java.nio.file.*;

public class UserInfoIOController {

        private static final Path accountPath = Paths.get("userAccountDB.csv");
        private static final File accountFile = accountPath.toFile();
        private static final String FIELD_SEP = ",";
        private static List<UserInfoModel> userAccountInfo = getAccountDetails();

        public UserInfoIOController()
        {

        }

        public static List<UserInfoModel> getAccountDetails()
        {
            userAccountInfo = new ArrayList<>();
            if(!Files.exists(accountPath))
                System.out.println("File not found" + accountFile);

            if(Files.exists(accountPath))
            {
                try (BufferedReader in = new BufferedReader (new
FileReader(accountFile)))
                {
                    String line = in.readLine();
```

```
                while(line!=null)
                {
                    String[] columns = line.split(FIELD_SEP);
                    String name = columns[0];
                    String username = columns[1];
                    String password = columns[2];
                    String dob = columns[3];

                    UserInfoModel user = new UserInfoModel();
                    user.setName(name);
                    user.setUsername(username);
                    user.setPassword(password);
                    user.setDateOfBirth(dob);

                    userAccountInfo.add(user);
                    line = in.readLine();
                }
            }
            catch(IOException e)
            {
                System.out.println(e);
                // add code
            }
        }
        return userAccountInfo;
    }


    public static UserInfoModel get(String username)
    {
        for(UserInfoModel user : userAccountInfo)
        {
            if(user.getUsername().equals(username))
                return user;
        }
        return null;
    }

    public static boolean saveNewUserInfo()
    {
        try(PrintWriter out = new PrintWriter(new BufferedWriter(new
FileWriter(accountFile))))
        {
            for(UserInfoModel user : userAccountInfo)
            {
                out.print(user.getName() + FIELD_SEP);
                out.print(user.getUsername() + FIELD_SEP);
                out.print(user.getPassword() + FIELD_SEP);
                out.print(user.getDateOfBirth());
            }
        }
        catch(IOException e)
        {
            System.out.println(e);
            return false;
```

```
            }
            return true;
        }

        public static boolean add(UserInfoModel user)
        {
            userAccountInfo.add(user);
            return saveNewUserInfo();
        }

        public static boolean delete(UserInfoModel user)
        {
            userAccountInfo.remove(user);
            return saveNewUserInfo();
        }

        public static boolean update(UserInfoModel newUser)
        {
                                    elements:
            UserInfoModel oldUser = get(newUser.getUsername());
            int i = userAccountInfo.indexOf(oldUser);
            userAccountInfo.remove(i);

                                    ements:
            userAccountInfo.add(i, newUser);
            return saveNewUserInfo();
        }
    }
```

```
package sample.controller;


import com.jfoenix.controls.JFXButton;
import com.jfoenix.controls.JFXPasswordField;
import com.jfoenix.controls.JFXTextArea;
import com.jfoenix.controls.JFXTextField;
import javafx.event.ActionEvent;
import javafx.event.EventHandler;
import javafx.fxml.FXML;
import javafx.fxml.FXMLLoader;
import javafx.scene.Parent;
import javafx.scene.Scene;
import javafx.scene.control.Label;
import javafx.stage.Stage;
import sample.model.UserInfoModel;

import java.io.*;
import java.net.URL;
import java.util.List;
import java.util.ResourceBundle;

public class LogInController {
```

```
@FXML
private JFXButton loginPageButton;

@FXML
private JFXPasswordField dateOfBirth;


@FXML
private ResourceBundle resources;

@FXML
private URL location;

@FXML
private JFXTextField logInUserName;

@FXML
private JFXButton loginButton;

@FXML
private JFXTextArea alertUser;

@FXML
private JFXPasswordField logInPassword;

@FXML
private Label loginLabel;

@FXML
private JFXButton loginForgotPassword;

@FXML
void initialize() {

    //if the user clicks the login button
    loginButton.setOnAction(new EventHandler<ActionEvent>() {
        @Override
        public void handle(ActionEvent event) {
            loginUser();


            loginButton.setOnAction(new EventHandler<ActionEvent>(){
                @Override
                public void handle(ActionEvent event) {

                }
            });

        }
    });

    //if the user forgets his password and clicks the forg
    //create and take him to the verification page
    loginForgotPassword.setOnAction(new EventHandler<ActionEvent>() {
```

```
            @Override
            public void handle(ActionEvent event) {
                retrievePassword();


            }
        });


    }




    public void loginUser() {
        List<UserInfoModel> user = UserInfoIOController.getAccountDetails();
        UserInfoModel u;

            for (int i = 0; i < user.size(); i++) {
                u = user.get(i);

                // if the user enters the right login details
                if (u.getUsername().equalsIgnoreCase(logInUserName.getText()) &&
                        u.getPassword().equalsIgnoreCase(logInPassword.getText())){

                    // open a new stage or window - meaning take the user to the
shop
                    loginButton.getScene().getWindow().hide();


                    FXMLLoader loader = new FXMLLoader();

loader.setLocation(getClass().getResource("/sample/view/productScreen.fxml"));
                    try {
                        loader.load();
                    } catch (IOException e) {
                        e.printStackTrace();
                    }
                    Parent root = loader.getRoot();
                    Stage shoppingStage = new Stage();
                    Scene scene = new Scene(root);
                    shoppingStage.setScene(scene);
                    shoppingStage.show();

                }

                // if the user enters the wrong login details
                // display that he has entered wrong username or password
                if (!logInUserName.getText().equals("") &&
!u.getUsername().equalsIgnoreCase(logInUserName.getText())
                        &&
!u.getPassword().equalsIgnoreCase(logInPassword.getText()))
                {
```

```
                    alertUser.setText("Wrong username or password");
                }

                //if the user doesn't enter anything but
                //ask him to enter the details
                if (logInUserName.getText().equals("") &&
logInPassword.getText().equals(""))
                    alertUser.setText("Please enter your credentials");
            }
            }



    private void retrievePassword(){

        //if the user clicks the forget your password but
        loginForgotPassword.getScene().getWindow().hide();
                FXMLLoader loader = new FXMLLoader();

loader.setLocation(getClass().getResource("/sample/view/retrievePasswordScreen.fxml")
);
                try {
                    loader.load();
                } catch (IOException e) {
                    e.printStackTrace();
                }
                Parent root = loader.getRoot();
                Stage retrievePasswordStage = new Stage();
                Scene scene = new Scene(root);
               retrievePasswordStage.setScene(scene);
                retrievePasswordStage.show();
            }

    }
```

```
package sample.controller;

import com.jfoenix.controls.JFXButton;
import com.jfoenix.controls.JFXPasswordField;
import com.jfoenix.controls.JFXTextArea;
import com.jfoenix.controls.JFXTextField;
import javafx.event.ActionEvent;
import javafx.event.EventHandler;
import javafx.fxml.FXML;
import javafx.fxml.FXMLLoader;
import javafx.scene.Parent;
import javafx.scene.Scene;
import javafx.scene.control.Label;
import javafx.scene.text.Text;
import javafx.stage.Stage;
```

```
import sample.model.UserInfoModel;

import java.io.Console;
import java.io.IOException;
import java.util.List;

public class SignUpController {
    UserInfoModel newUser = new UserInfoModel();



    @FXML
    private JFXPasswordField signUpPassword;

    @FXML
    private JFXTextField signUpUserName;

    @FXML
    private JFXButton signUpButton;

    @FXML
    private JFXTextField signUpFullName;

    @FXML
    private Label signUpLabel;

    @FXML
    private JFXTextField signUpDOB;

    @FXML
    private Text alertUser;

    @FXML
    void initialize() {

        signUpButton.setOnAction(new EventHandler<ActionEvent>() {
            @Override
            public void handle(ActionEvent event) {
                signUpUser();


            }
        });



    }

    public void signUpUser()
    {
        String fullName = signUpFullName.getText();
        String userName = signUpUserName.getText();
        String password = signUpPassword.getText();
        String dateOfBirth = signUpDOB.getText();
```

```
        newUser.setName(fullName);
        newUser.setUsername(userName);
        newUser.setPassword(password);
        newUser.setDateOfBirth(dateOfBirth);

        if (newUser.getName().equalsIgnoreCase(fullName) ||
newUser.getUsername().equalsIgnoreCase(userName)
                || newUser.getPassword().equalsIgnoreCase(password) ||
newUser.getDateOfBirth().equalsIgnoreCase(dateOfBirth)){
            alertUser.setText("This user exists in our database");
            return;
        }
        else
            goToLoginPage();



    }

    private void goToLoginPage(){

        UserInfoIOController.add(newUser);

        signUpButton.getScene().getWindow().hide();

        FXMLLoader loader = new FXMLLoader();
        loader.setLocation(getClass().getResource("/sample/view/loginScreen.fxml"));
        try {
            loader.load();
        } catch (IOException e) {
            e.printStackTrace();
        }
        Parent root = loader.getRoot();
        Stage loginStage = new Stage();
        Scene scene = new Scene(root);
        loginStage.setScene(scene);
        loginStage.show();
        return;
    }



}
```

```
package sample.controller;

import java.text.NumberFormat;
import com.jfoenix.controls.JFXButton;
import com.jfoenix.controls.JFXTextArea;
import com.jfoenix.controls.JFXTextField;
import javafx.event.ActionEvent;
import javafx.event.EventHandler;
import javafx.fxml.FXML;
```

```
import javafx.scene.control.Label;
import javafx.scene.text.Text;
import sample.model.ProductModel;
import sample.model.UserInfoModel;

import java.util.List;

public class ProductController {

    @FXML
    private JFXTextField qtyFour;

    @FXML
    private JFXButton totalButtonTwo;

    @FXML
    private JFXTextArea displayPriceOne;

    @FXML
    private JFXButton totalButtonOne;

    @FXML
    private JFXTextField selectionTwo;

    @FXML
    private JFXTextArea displayPriceThree;

    @FXML
    private JFXTextField qtyThree;

    @FXML
    private JFXTextField selectionThree;

    @FXML
    private JFXButton totalButtonThree;

    @FXML
    private JFXButton grandTotalButton;

    @FXML
    private JFXButton totalButtonFour;

    @FXML
    private JFXTextField qtyTwo;

    @FXML
    private JFXTextArea displayPriceFour;

    @FXML
    private JFXTextArea displayPriceTwo;

    @FXML
    private JFXTextField selectionOne;
```

```
@FXML
private JFXTextField selectionFour;

@FXML
private JFXTextArea displayGrandTotal;

@FXML
private JFXTextField qtyOne;

@FXML
private Text priceOne;

@FXML
private Text priceTwo;

@FXML
private Text priceThree;

@FXML
private Text priceFour;

private static double sum = 0.0;
NumberFormat currency = NumberFormat.getCurrencyInstance();


public ProductController() {
}

@FXML
void initialize() {
    totalButtonOne.setOnAction(new EventHandler<ActionEvent>() {
        @Override
        public void handle(ActionEvent event) {
            if (selectionOne.getText().equalsIgnoreCase("curry")){
                int qty = Integer.parseInt(qtyOne.getText());
                double price = Double.parseDouble(priceOne.getText());
                double product = qty * price;
                sum += product;
                displayPriceOne.setText(currency.format(product));

            }
        }
    });
    totalButtonTwo.setOnAction(new EventHandler<ActionEvent>() {
        @Override
        public void handle(ActionEvent event) {
            if (selectionTwo.getText().equalsIgnoreCase("lebron")){
                int qty = Integer.parseInt(qtyTwo.getText());
                double price = Double.parseDouble(priceTwo.getText());
                double product = qty * price;
                sum += product;
                displayPriceTwo.setText(currency.format(product));
            }
        }
    });
```

```
        totalButtonThree.setOnAction(new EventHandler<ActionEvent>() {

            public void handle(ActionEvent event) {
                if (selectionThree.getText().equalsIgnoreCase("durant")){
                    int qty = Integer.parseInt(qtyThree.getText());
                    double price = Double.parseDouble(priceThree.getText());
                    double product = qty * price;
                    sum += product;
                    displayPriceThree.setText(currency.format(product));
                }
            }
        });

        totalButtonFour.setOnAction(new EventHandler<ActionEvent>() {

            public void handle(ActionEvent event) {
                if (selectionFour.getText().equalsIgnoreCase("harden")){
                    int qty = Integer.parseInt(qtyFour.getText());
                    double price = Double.parseDouble(priceFour.getText());
                    double product = qty * price;
                    sum += product;
                    displayPriceFour.setText(currency.format(product));
                }
            }
        });

        grandTotalButton.setOnAction(new EventHandler<ActionEvent>() {

            public void handle(ActionEvent event) {

                    displayGrandTotal.setText(currency.format(sum));

            }
        });

}
```

```
package sample.controller;

import com.jfoenix.controls.JFXButton;
import com.jfoenix.controls.JFXPasswordField;

import java.io.IOException;
import java.net.URL;
import java.util.List;
```

```
import java.util.ResourceBundle;

import com.jfoenix.controls.JFXTextArea;
import com.jfoenix.controls.JFXTextField;
import javafx.event.ActionEvent;
import javafx.event.EventHandler;
import javafx.fxml.FXML;
import javafx.fxml.FXMLLoader;
import javafx.scene.Parent;
import javafx.scene.Scene;
import javafx.scene.control.Label;
import javafx.stage.Stage;
import sample.model.UserInfoModel;

public class RetrievePasswordController {

    @FXML
    private ResourceBundle resources;

    @FXML
    private URL location;

    @FXML
    private JFXButton showPasswordButton;

    @FXML
    private JFXButton loginPageButton;


    @FXML
    private JFXTextField dateOfBirth;

    @FXML
    private JFXTextArea alertUser;

    @FXML
    private Label retrievePasswordLabel;


    @FXML
    void initialize() {


        showPasswordButton.setOnAction(new EventHandler<ActionEvent>() {
            @Override
            public void handle(ActionEvent event) {
                passwordRetrieval();
            }
        });

        loginPageButton.setOnAction(new EventHandler<ActionEvent>() {
            @Override
            public void handle(ActionEvent event) {
                //Get the main window(NBA Welcome Screen)
                loginPageButton.getScene().getWindow().hide();
```

```
                Stage logInStage = new Stage();
                try {
                    Parent root =
FXMLLoader.load(getClass().getResource("/sample/view/logInScreen.fxml"));
                    Scene scene = new Scene(root);
                    logInStage.setScene(scene);
                    logInStage.show();
                } catch (IOException e) {
                    e.printStackTrace();
                }
            }
        });


    }

    public void passwordRetrieval() {
        List<UserInfoModel> user = UserInfoIOController.getAccountDetails();
        UserInfoModel u;

        for (int i = 0; i < user.size(); i++) {
            u = user.get(i);

                the right date of birth, display it to him
            if (u.getDateOfBirth().equalsIgnoreCase(dateOfBirth.getText())){
                alertUser.setText("Your password is " + u.getPassword() + ".\nClick
the Login Page button to sign in ");

            }

                the wrong login details
                has entered wrong username or password
            if (!dateOfBirth.getText().equals("") &&
!u.getDateOfBirth().equalsIgnoreCase(dateOfBirth.getText()))
                alertUser.setText("Date of birth is not in our database. Please sign
up");

            {
                return;
            }
        }

    }

}
```

OUTPUT