PROGRAMMING TECHNOLOGIES AND EDUCATIONAL PRACTICE

PROJECT ASSIGNMENT - 2

Project: Online News WebSite (JavaFX)

100 points (5%)

1. PROJECT DESCRIPTION

This Online News WebSite project in Java was created with the primary goal of giving news organizations a system for locating current events. Furthermore, since this system allows them to read the news whenever they want, even those who enjoy reading or watching the news every day can make use of it. All they have to do is log in to the system, at which point they can keep up with the latest events in the world by updating themselves. The reader can directly log into the system and select the news topic they are interested in while navigating the proposed Online News portal project in Java.

Additionally creativity from your side will be greatly appreciated and graded as extra "10 points"

2. EXPLANATIONS

Installation Steps

Intellij idea

Develop this program in intellij

https://www.jetbrains.com/idea/download/#section=windows

Scene Builder

The program to apply the drawings

SceneBuilder-11.0.0

The link is below:

https://gluonhq.com/products/scene-builder/

3. EXECUTION PROCEDURES

This is a JavaFX project which has user login, user registration, information and error notification, and an admin panel which helps new individual login.

- ☐ Create a “Login” and “Registration” page.
- ☐ Use “try/catch” create an output stream for login file
  - ☐ FileOutputStream output = new FileOutputStream("file.txt");
  - ☐ Create an input / output stream and write Write user login information to the file.
  - ☐ If there is already an account enter the username and password.

Method Steps:

1. *void createFolder():*
   a. Save files into a folder.
2. *void readFile():*
   a. If file exists use **FileNotFoundException(null)**:
      i. **null means:** When a variable is accessed which is not pointing to any object and refers to nothing or null.
      ii. Print error message -> “File exists”
   b. If not use **IOException**:
      i. Print -> “File Created”

3. *void addData():*
   a. Use:
      i. **RandomAccessFile**, let the user read and write to a file at the same time. Implement DataInput and DataOutput.
         1. Ex: randomAccess.writeBytes(“Username :” + username);
      ii. FileNotFoundException**(null)**
      iii. IOException**(null)**

4. *void CheckData():*
    a. Use:
        i. FileNotFoundException**(null)**
        ii. IOException**(null)**
        iii. If "username" == "password" show **error message dialog: ("Password Matched");**
            1. **else:** show **error message dialog:("Wrong user/password");**
        iv. Limit username, password and email to 9 characters.

5. *void CountLines():*

    In case there will be multiple usernames and passwords then your search code should be in a loop.

Ex:
```
username:
password:
email:

username:
password:
email:

username:
password:
email:
```

    a. print("number of lines" + number_of_lines);
    b. Add FileNotFoundException**(null)** and IOException**(null)**.

6. *void logic():*

    Check data for multiple values using loop:

    a. If username == password
        i. Give error message("Password matched");
            1. else: ("username/password incorrect");
        ii. FileNotFoundException**(null)**
        iii. IOException**(null)**

Overall Error Message Dialogs:

1. If username & Password already exists in file:
    a. **Show error message dialog:** password matched.

2. If the fields are empty:
    a. **Show error message dialog:** the fields are empty.

3. If the login is incorrect:
    a. **Show error message dialog:** The username/password incorrect.

4. Enter the fields username, password and email, save the information to txt file with **binary input/Output(mandatory)** as mentioned above.

5. Print the number of lines counted while registering.

Remember Me:

- When the user presses **"Remember Me"** checkbox, the page should be directly forwarded to the News page without entering any "login information".

- When the execution ends the user will be again asked to enter login information or if there is no account "Sign Up" button should be pressed and forwarded to the registration page.

Forgot Password:

- **Forgot password** helps to recover the account information with the help of resetting.
- Use that field to reset your password and save the new information using **Binary I/O into a txt file.**
- The design of the page should be relevant to the other pages as mentioned below.

***Note:* Please remember to include all the specific details listed at the image samples below.**

1) *If the "**Sign Up**" button is clicked the **Registration Page** will be displayed.. Otherwise, **"Login"** to the system and then access the **"News Page"**.*

2) *If the "**Login**" button is clicked the **"Login Page"** will be displayed.*

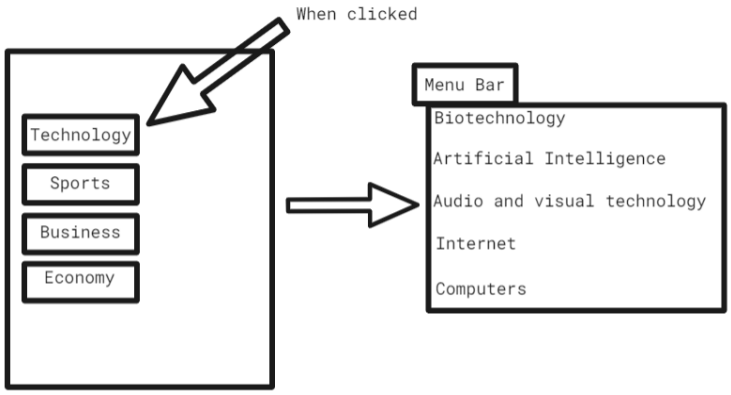
3) *Add "Loading Icon" beneath the button when it is clicked.*

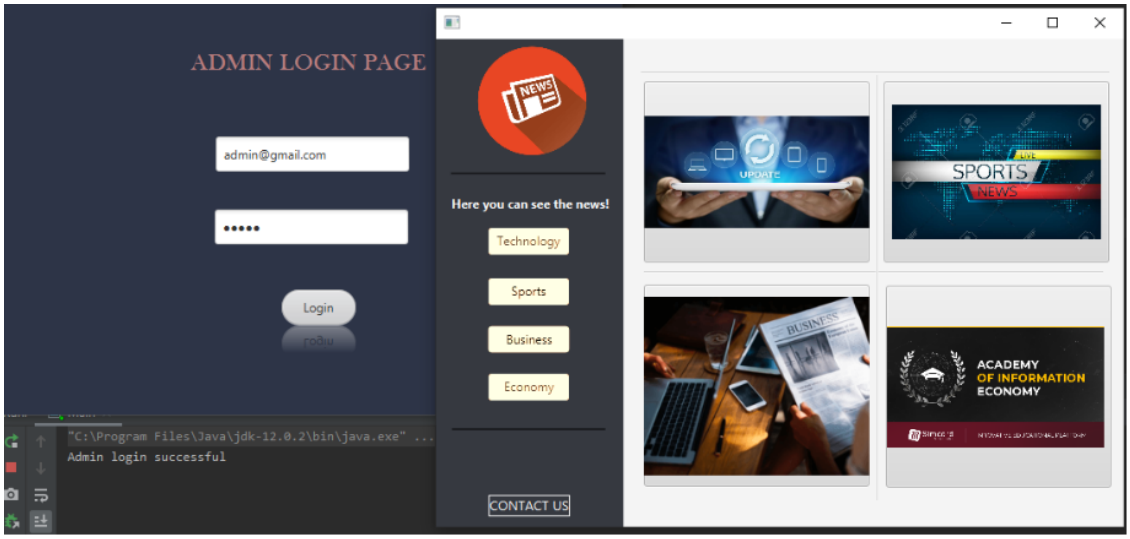
4) *Add the **"Error Message Dialogs"** that were mentioned above.*

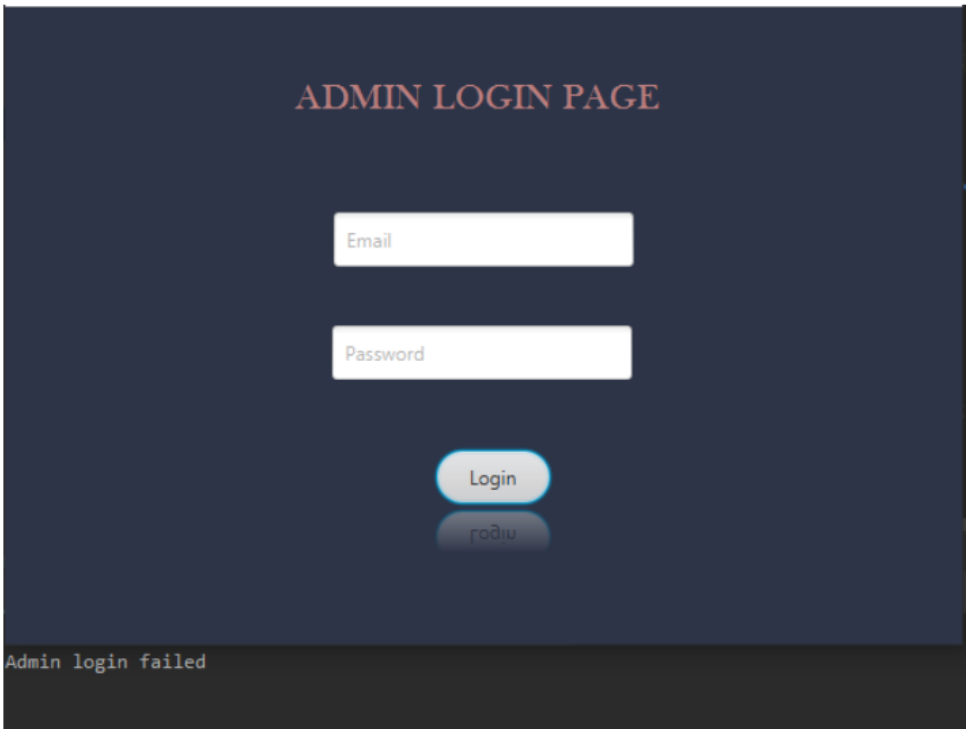
5) *Implement a **"Admin account class"** as well. You should also be directed to the news page using this account and the following **username** and **password**:*

6) *When the **"Technology Button"** is clicked, a **"Menu Bar"** is added to the top of the news page, containing separate sections for "Technology, Sports, Business, and Economy. Insert images pertaining to the field you have chosen for each item you click.*

Ex:







SAMPLE 1

After creating the login page(fxml), create a **Login Controller class**. Define commands to retrieve the information entered in the boxes or the recorded information from the database when the account is logged into homepage that opens the News page:

****

Ex:

@FXML

private TextField text_example

****

Samples to include in your class code is down below:

"public class LoginController implements Initializable{}"

1. private TextField username;
2. private TextField password;
3. private Button signup;
4. private Button login;

5. private CheckBox remember;
6. private ImageView progress;
7. private Label lbl_username;
8. private Label lbl_password;
9. private Label forgotpassword;

****

@FXML

void loginAction(ActionEvent event) {}

@FXML

public void signUp(ActionEvent event) throws IOException {}

SAMPLE 2

Enter the commands to save the data into database as you did in the login page Here, the information entered within the gender should save into database and login page with this information

public class SignUpControllers extends Component implements Initializable {}

****

Ex:

@FXML

private TextField text_example

****

private AnchorPane parentPane;

private TextField username;

private TextField password;

private RadioButton male;

private ToggleGroup genders;

private RadioButton female;

private TextField email;

private Button signup;

private Button login;

private ImageView progress;

```
private RadioButton other;
**************************
@FXML
public void signUp(ActionEvent event) {}
@FXML
public void loginAction(ActionEvent event) throws IOException {
        public String getGender() {
        }}
```

SAMPLE 3

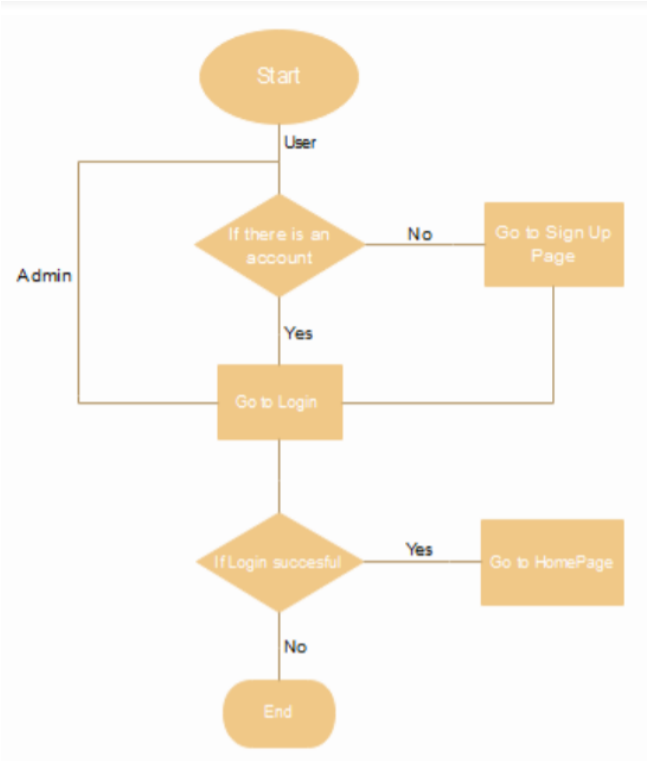
Created an account for admin email and password for successful login, admin will display a message indicating success and will go to the news page.

```
public class AdminPanelController implements Initializable {}

@FXML
private Button login;
@FXML
private TextField AdminEmail;
@FXML
private TextField AdminPassword;
@FXML
void loginAction(ActionEvent event) {}
```

ADDITIONAL FEATURES

In this there are some additional features for validation purposes. Below is on details:



NOTES ON GRADING

Make sure that every class does exactly what is described in the project requirements. Do NOT share your code with anyone. It would be considered academic dishonesty, and strictly penalized. All the works submitted shall be inspected by a special program and reviewed by the instructors. Any kind of similarity, or not being able to answer questions on the project gives the instructor full right to penalize the work, and even cancel the results that have already been graded because of cheating issues. In simple words, the fact that you did not cheat yourself, or that you showed your work and it has already been graded, does not help you. All the sides involved in cheating (which is a crime) will be penalized. Again, do not share your code under any conditions. Although you are strongly encouraged to ask questions and have discussions during defense, make sure you do not share your code, please.