



UMS
UNIVERSITI MALAYSIA SABAH

KK14203 OBJECT-ORIENTED PROGRAMMING, SECTION 1

SEMESTER 2, 2019/2020 SESSION

FACULTY OF COMPUTING AND INFORMATICS

TITLE

INDIVIDUAL PROJECT

EMPLOYEE LEAVE MANAGEMENT SYSTEM

LECTURER

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STUDENT'S NAME

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(BI19110061)

1.0 Introduction

The main idea of this project is to create a system that manage employee leave for a company. The system is called Employee Leave Management System. In real life application, Employee Leave Management System can be very handy as it can be access by both administrator and employees. This make things easier for all staff of company. In addition, students for every batch are not that many. It is a simple user interface which means user will not face any complexities whenever they are using it.

2.0 Object-Oriented Programming Concepts

2.1 Classes

Class is a set of instructions that is used to build a specific type of object.

Example:

MainPanel, AdminLogin, ConfirmationForm, ApplicationStatus

2.2 Objects

Objects is an instance of class created by using 'new' keyword. Example:

MainPanel frame = new MainPanel();

2.3 Methods

Methods provide interaction point with other parts of the program. Example:

public void writeInput(),

2.4 Inheritance

Inheritance refers to the ability of a class to inherit from another class. The class will inherit the properties of the java swing by using keyword 'extend'.

Example:

```
Class MainPanel extends JPanel {  
  
    // code  
  
}
```

2.5 Polymorphism

Polymorphism allows us to perform a single action in different ways. For example, implementing Action Listener on JButton, and also implementing Item Listener on JCheckBox and JRadioButton.

3.0 Read and Write Implementation

a. Read

This code will read the file name Employee Leave Application Form.txt and data in text file shown in this panel.

```
class StatusPanel extends JPanel{
    JLabel outputlabel;
    JScrollPane jsp;
    String output="";
    String filePath="Employee Leave Application Form.txt";

    public void actionPerformed(ActionEvent e) {
        BufferedReader reader;
        try {
            reader = new BufferedReader(new FileReader(fp.filePath));
            String line = reader.readLine();
            String output="<html>";
            while (line != null) {
                output += line + "<br>";
                line = reader.readLine();
            }
            output += "<br>";
            fp.outputlabel.setText(output);
            reader.close();
        } catch (IOException io) {
            fp.outputlabel.setText(io.toString());
        }
    }
}
```

b. Write

This code will write data from input to file name Employee Leave Application Form.txt.

```
public void writeInput(){

    File file = new File(filePath);

    FileWriter fr = null;

    BufferedWriter br = null;

    PrintWriter pr = null;

    String input = "Fullname: " + fullname.getText() + "\n" + "Employee ID: " +
id.getText() + "\n" + "Type of Leave: " + leaveSelection + "\n" + "Date Start:
" + datestart.getText() + "\n" + "Date End: " + dateend.getText() + "\n" +
"Status: pending";

    try {

        fr = new FileWriter(file, true);

        br = new BufferedWriter(fr);

        pr = new PrintWriter(br);

        pr.println(input);

    } catch (IOException e) {

        JOptionPane.showMessageDialog(null, "Submission is unsuccessful!");

    } finally {

        try {

            pr.close();

            br.close();

            fr.close();

        } catch (IOException e) {

            JOptionPane.showMessageDialog(null, "Submission is unsuccessful!");}}}
}
```

4.0 Source Code

<https://github.com/Eliezer312/KK14203-SECTION-1>

5.0 User Manual Guide

A. Admin Manual Guide

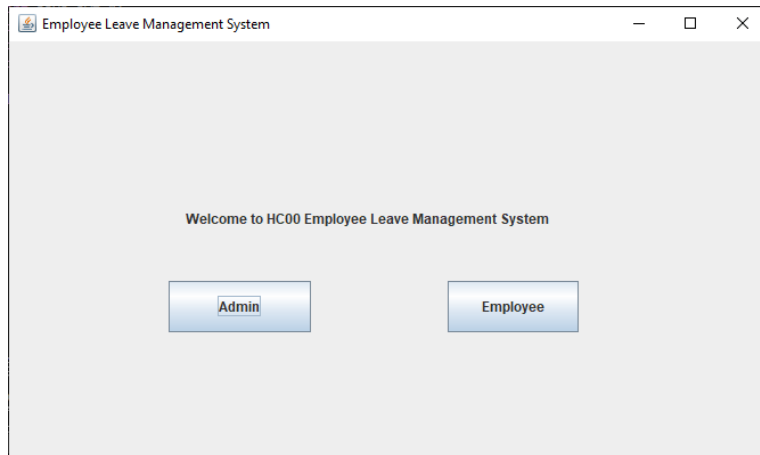


FIGURE 1: Main Page

1. User need to choose to log in as an administrator or an employee before proceeded to login page.

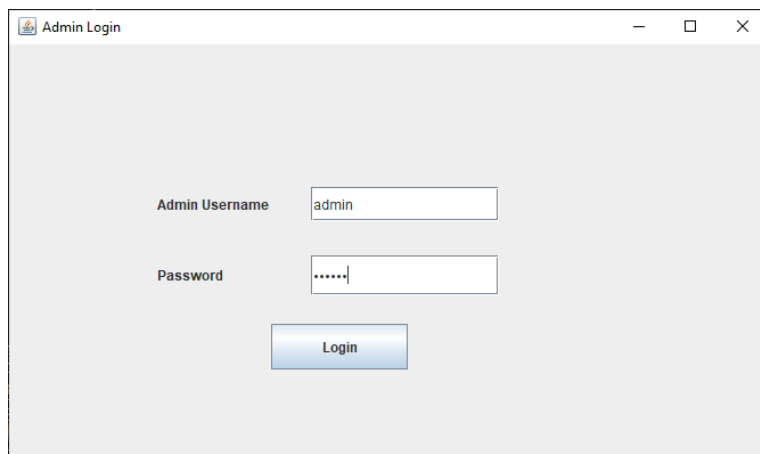


FIGURE 2: Admin Login

2. Admin button in Figure 1 will open Admin Login as in Figure 2.

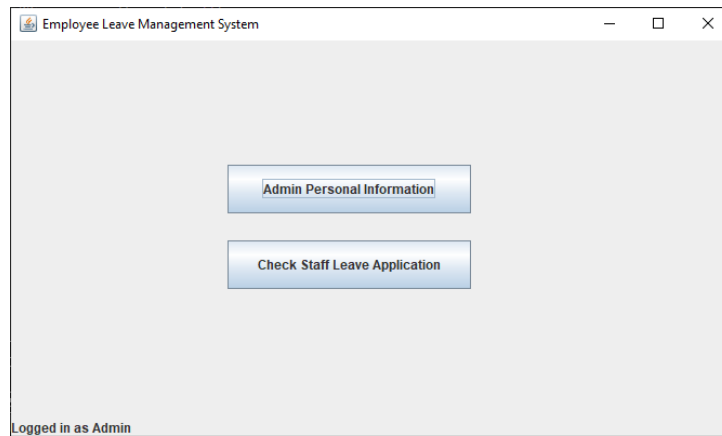


FIGURE 3: Admin Main Page

3. Figure 3 is Admin Main Page after successfully logged in.

FIGURE 4: Admin Personal Information Form

4. Admin may fill in the personal information form after clicking 'Update Personal Information' button. After submitted, the form is stored in Admin Personal Info.txt.
5. Admin may exit the system by clicking 'Exit' in the Menu.

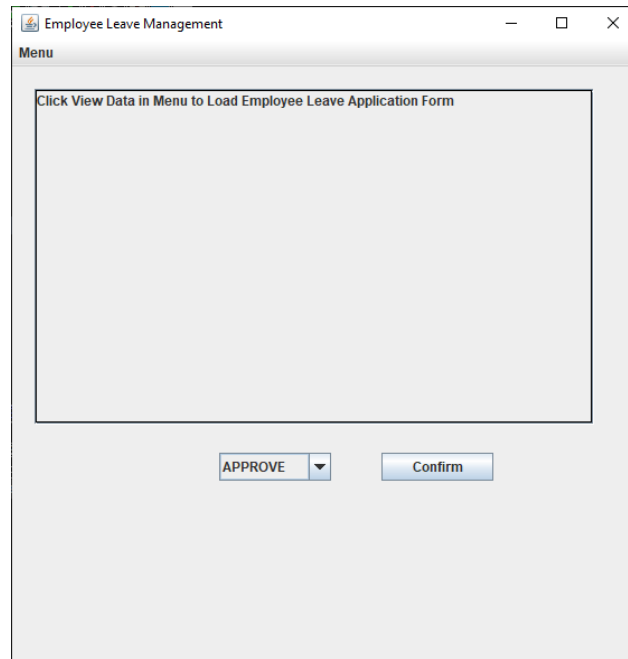


FIGURE 5: Check Employee Leave Application

6. Admin may check latest employee leave application by clicking 'Check Staff Leave Application' in Figure 3.
7. Admin can choose from the Combo Box to approve or disapprove the leave application form.

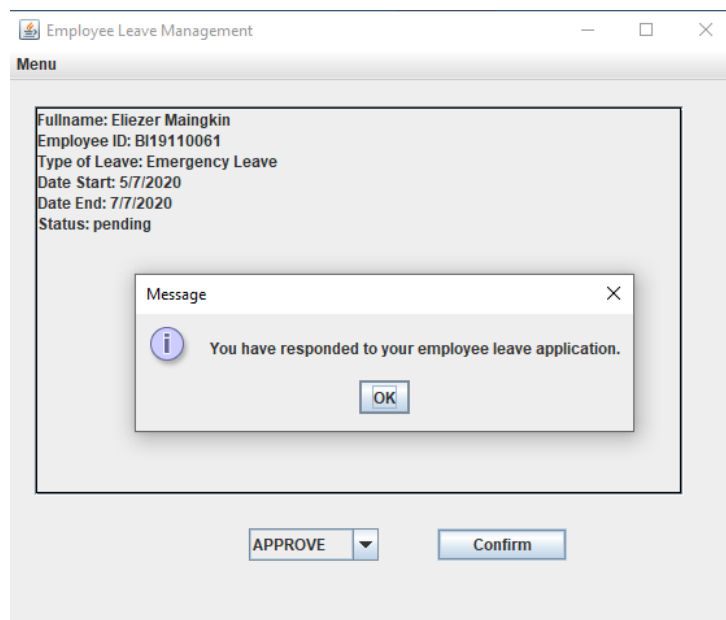


FIGURE 6: Check Employee Leave Application

8. Admin's response will be recorded in the same file of Employee Leave Application which is 'Employee Leave Application Form.txt'.

B. Employee Manual Guide

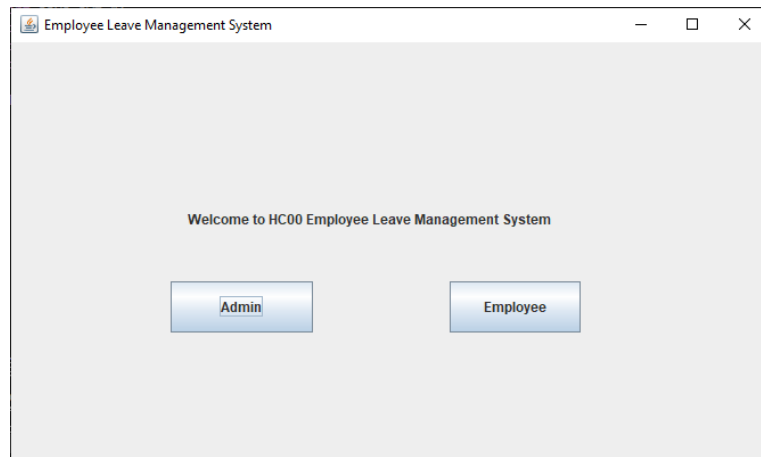


FIGURE 7: Main Page

9. User need to choose to log in as an administrator or an employee before proceeded to login page.

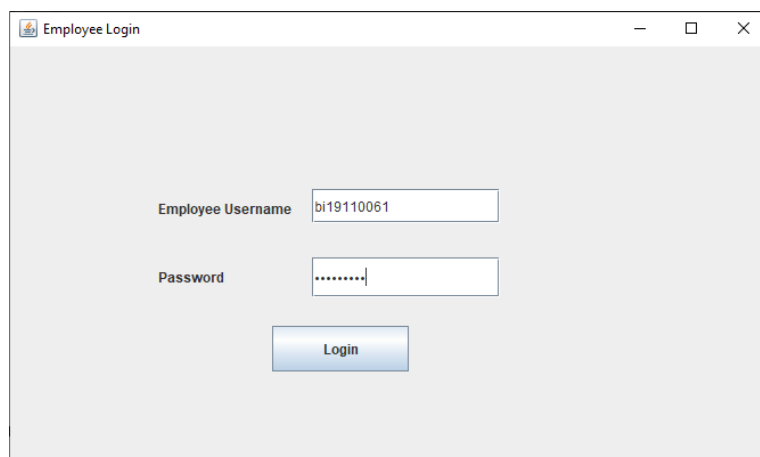


FIGURE 8: Employee Login

10. Employee button in Figure 1 will open Employee Login as in Figure .

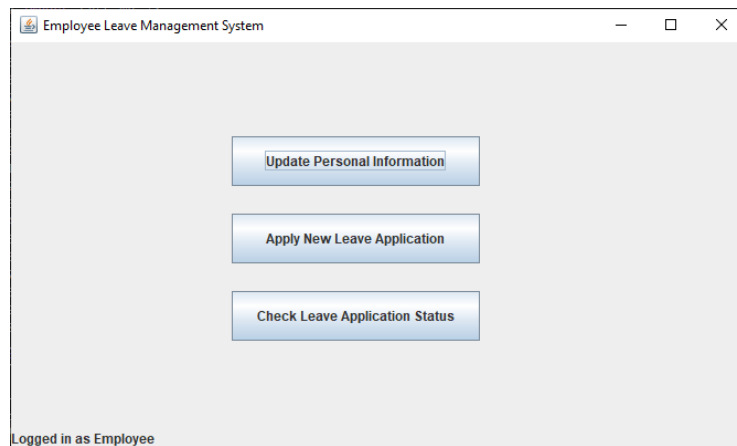


FIGURE 9: Employee Main Page

11. Figure is Employee Main Page after successfully logged in.

FIGURE 10: Employee Personal Information

12. Employee may fill in the personal information form after clicking 'Update Personal Information' button. After submitted, the form is stored in Employee Personal Info.txt.
13. Employee may exit the system by clicking 'Exit' in the Menu.

The image shows a software window titled "Employee Leave Application". It contains several input fields and a submit button. A smaller "Message" dialog box is overlaid on top, displaying an information icon and the text "You have successfully submit your leave application!" with an "OK" button.

Employee Fullname : Eliezer Maingkin

Employee ID : BI19110061

Type of Leave : ☐ Annual Leave ☐ Medical Leave ☒ Emergency Leave

Date Start Leave : 5/7/2020 eg: 12/04/2020

Date End Leave : 7/7/2020s eg: 12/04/2020

SUBMIT

Message: You have successfully submit your leave application! OK

FIGURE 11: Employee Leave Application Form

14. Employee may fill in new leave application form after clicking 'Apply New Leave Application' button. After submitted, the form is stored in .txt.

The image shows a software window titled "Employee Leave Management". It has a menu bar with "Menu", "View Data", and "Exit". The main area displays the details of a leave application for Eliezer Maingkin.

Menu

View Data

Exit

Eliezer Maingkin

Employee ID: BI19110061

Type of Leave: Emergency Leave

Date Start: 5/7/2020

Date End: 7/7/2020

Status: pending

Updated Status: APPROVE

FIGURE 12: Employee Leave Application Form Status

15. Employee may check the leave application form status after clicking 'Check Leave Application Status' button. To load the form, click 'View Data' in Menu. Any new changes on status is on the most bottom which is "Updated Status".