KK14203 OBJECT ORIENTED PROGRAMMING

SEMESTER II

SESSION 2019/2020

ASSIGNMENT 2

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MOVIEBOX CINEMA BI19160330

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Table of Content

INTRODUCTION

Cinema is a public place for people to watch newly released movies. It is a place tend to get busy and crowded that even may cause unintended problems like a long queue to the counter, lack of employees to serve, miscommunication, etc. To counter these problems, I had created an interface so called the Movie Box Cinema. It is a GUI (Graphical User Interface), that shows how the interface would look like if it were in a website for a cinema official site. The use of this interface is to let people buy their favoured movies via online, and this way will make people cut less time and energy to even go at the cinema to buy movie ticket.

The interface that I had been created seem simple as my target is to let people use and see it without any problem to understand and purchase their movies. This created interface will be more efficient as a mechanism to purchase movie online than being at the counter.

OBJECTIVES

1. To get data from user to login as a member.
2. To register for an unregistered customer/user.
3. To display multiple choices of movies.
4. To display the description of every movies being chose.
5. To let user buys the movie.

LOGIN (MAIN CLASS)

```java
/**
 *
 * @author Vendrick Jalong BI19160330
 */
import java.awt.EventQueue;
import javax.swing.JFrame;
import javax.swing.JLabel;
import javax.swing.JOptionPane;
import javax.swing.JPanel;
import java.awt.Color;
import java.awt.Font;
import javax.swing.JTextField;
import javax.swing.border.EmptyBorder;
import javax.swing.JButton;
import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;
import java.awt.event.MouseEvent;
import java.awt.event.MouseListener;
import java.io.BufferedReader;
import java.io.FileReader;
import java.io.IOException;

public class Login extends JFrame implements ActionListener, MouseListener{

        private JFrame frame;
        private JTextField username;
        private JTextField password;
        private JButton btnLogin;
        private JLabel lblSignUpHere;
        private JPanel contentPane;
        int position;
```

```java
/**
 * This method is called from within the constructor to initialize the form.
 * WARNING: Do NOT modify this code. The content of this method is always
 * regenerated by the Form Editor.
 */
@SuppressWarnings("unchecked")
// <editor-fold defaultstate="collapsed" desc="Generated Code">
private void initComponents() {

    setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);

    javax.swing.GroupLayout layout = new
javax.swing.GroupLayout(getContentPane());
    getContentPane().setLayout(layout);
    layout.setHorizontalGroup(
        layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGap(0, 400, Short.MAX_VALUE)
    );
    layout.setVerticalGroup(
        layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGap(0, 300, Short.MAX_VALUE)
    );

    pack();
}// </editor-fold>

/**
 * @param args the command line arguments
 */
    /**Launch the application**/
public static void main(String args[]) {
    EventQueue.invokeLater(new Runnable() {
                public void run() {
                        try {
```

```java
                                    Login window = new Login();

                            } catch (Exception e) {
                                    e.printStackTrace();
                            }
                    }
            });
    }


    /**
     * Create the application.
     */

public Login() {
            frame = new JFrame();
            frame.setTitle("Login Page");
            frame.setBounds(100, 100, 496, 319);
            frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
            frame.getContentPane().setLayout(null);
            contentPane = new JPanel();
        contentPane.setBackground(Color.BLACK);
            contentPane.setBorder(new EmptyBorder(5, 5, 5, 5));
            frame.setContentPane(contentPane);
            contentPane.setLayout(null);
            initialize();
    }

/**
     * Initialize the contents of the frame.
     */
    private void initialize() {
            frame.setVisible(true);

            //Set title here
            JLabel lblTitle = new JLabel("Movie Box Cinema");
```

```java
lblTitle.setForeground(Color.RED);
lblTitle.setFont(new Font("Prestige Elite Std", Font.PLAIN, 19));
lblTitle.setBackground(Color.WHITE);
lblTitle.setBounds(144, 32, 230, 30);
frame.getContentPane().add(lblTitle);

//label for username
JLabel lblUsername = new JLabel("Username");
lblUsername.setForeground(Color.WHITE);
lblUsername.setBounds(54, 90, 76, 14);
frame.getContentPane().add(lblUsername);

//label for password
JLabel lblPassword = new JLabel("Password");
lblPassword.setForeground(Color.WHITE);
lblPassword.setBounds(54, 126, 76, 14);
frame.getContentPane().add(lblPassword);

//textfield for username
username = new JTextField();
username.setBounds(140, 87, 262, 20);
frame.getContentPane().add(username);
username.setColumns(10);

//textfield for password
password = new JTextField();
password.setBounds(140, 123, 262, 20);
frame.getContentPane().add(password);
password.setColumns(10);


//login button
btnLogin = new JButton("Login");
btnLogin.setBounds(176, 167, 156, 23);
frame.getContentPane().add(btnLogin);
```

```java
        btnLogin.addActionListener(this);

        JLabel lblNotAMember = new JLabel("Not a member ?");
        lblNotAMember.setForeground(Color.WHITE);
        lblNotAMember.setBounds(176, 214, 96, 14);
        frame.getContentPane().add(lblNotAMember);

        lblSignUpHere = new JLabel("Sign up here");
        lblSignUpHere.setForeground(Color.RED);
        lblSignUpHere.setBounds(270, 214, 76, 14);
        frame.getContentPane().add(lblSignUpHere);
        lblSignUpHere.addMouseListener(this);
        frame.addMouseListener(this);
    }

//All button action is defined here
    @Override
    public void actionPerformed(ActionEvent e) {
        if (e.getSource() == btnLogin) {
            login();
        }
    }

    public void login() {
        String record = null;
        FileReader in = null;


        try {
            in = new FileReader ("login.txt");
            BufferedReader br = new BufferedReader(in);
            String username = this.username.getText();
            String password = this.password.getText();
            /* userStatus = 0 (User doesn't exist)
             * userStatus = 1 (User exist)
```

```java
                     * userStatus = 2 (Wrong password)
                     * when username is wrong, userStatus is = 0
                     */
                    int userStatus = 0;
                    //iterate through login.txt to find matching username and
password

                    while ((record = br.readLine()) != null) {
                        String[] split = record.split("\\s");

                        if (username.equals(split[0])) {
                            if (password.equals(split[1])) {
                                MovieBoxCinemaBI19160330 hp = new
MovieBoxCinemaBI19160330(username);

                                userStatus = 1;
                                hp.setVisible(true);
                                frame.dispose();
                            }
                            else {

                                System.out.println("Wrong password!");
                                userStatus = 2;

    JOptionPane.showMessageDialog(contentPane, "Wrong Password. Please
Reenter");

                            }
                            break;
                        }
                    }
                    if (userStatus == 0)
                        JOptionPane.showMessageDialog(contentPane,
"Account is not existed. Please click on Sign Up Here below");
                }
                catch (IOException ex) {
                    ex.printStackTrace();
                }
```

```
                }



        //The mouse method below is for mouse pressed function. Mainly only for the
Sign Up Here
        public void mousePressed(MouseEvent e) {


    }


        @Override
        public void mouseClicked(MouseEvent e) {
                if (e.getSource() == lblSignUpHere) {
                        SignUp reg = new SignUp();
                        reg.setVisible(true);
                        //frame.setVisible(false);
                        frame.dispose();
                }
        }


        @Override
        public void mouseReleased(MouseEvent e) {
                // TODO Auto-generated method stub


        }


        @Override
        public void mouseEntered(MouseEvent e) {
                // TODO Auto-generated method stub


        }


        @Override
        public void mouseExited(MouseEvent e) {
                // TODO Auto-generated method stub
```

```
        }
}
```

SIGN UP

```java
/**
 *
 * @author Vendrick Jalong BI19160330
 */
import java.awt.EventQueue;

import javax.swing.JFrame;

import javax.swing.JLabel;

import javax.swing.JOptionPane;

import javax.swing.JPanel;

import java.awt.Color;

import java.awt.Font;

import javax.swing.JTextField;

import javax.swing.border.EmptyBorder;

import javax.swing.JButton;

import java.awt.event.ActionEvent;

import java.awt.event.ActionListener;

import java.awt.event.MouseEvent;

import java.awt.event.MouseListener;

import java.io.BufferedReader;

import java.io.BufferedWriter;

import java.io.FileReader;

import java.io.FileWriter;

import java.io.IOException;

import java.io.PrintWriter;


public class SignUp extends JFrame implements ActionListener{
```

```java
    private JFrame frame;
    private JTextField username;
    private JTextField password;
    private JButton btnSignUp;
    private JLabel lblSignUpHere;
    private JPanel contentPane;
/**
 * This method is called from within the constructor to initialize the form.
 * WARNING: Do NOT modify this code. The content of this method is always
 * regenerated by the Form Editor.
 */
@SuppressWarnings("unchecked")
// <editor-fold defaultstate="collapsed" desc="Generated Code">
private void initComponents() {

    setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);

    javax.swing.GroupLayout layout = new
javax.swing.GroupLayout(getContentPane());
    getContentPane().setLayout(layout);
    layout.setHorizontalGroup(
        layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGap(0, 400, Short.MAX_VALUE)
    );
    layout.setVerticalGroup(
        layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGap(0, 300, Short.MAX_VALUE)
    );

    pack();
}// </editor-fold>

/**
 * @param args the command line arguments
 */
```

```java
    /**
     * Launch the application.
     */
    public static void main(String args[]) {

    }
    /**
     * Create the application.
     */
    public SignUp() {
            frame = new JFrame();
            frame.setTitle("Sign Up");
            frame.setBounds(100, 100, 496, 319);
            frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
            frame.getContentPane().setLayout(null);
            contentPane = new JPanel();
            contentPane.setBackground(Color.BLACK);
            contentPane.setBorder(new EmptyBorder(5, 5, 5, 5));
            frame.setContentPane(contentPane);
            contentPane.setLayout(null);

            initialize();
    }

/**
     * Initialize the contents of the frame.
     */
    private void initialize() {
            frame.setVisible(true);
            //Set title here
            JLabel lblTitle = new JLabel("Movie Box Cinema");
            lblTitle.setForeground(Color.RED);
            lblTitle.setFont(new Font("Prestige Elite Std", Font.PLAIN, 19));
            lblTitle.setBackground(Color.WHITE);
            lblTitle.setBounds(144, 32, 230, 30);
```

```java
        frame.getContentPane().add(lblTitle);

        //label for username
        JLabel lblUsername = new JLabel("Username");
        lblUsername.setForeground(Color.WHITE);
        lblUsername.setBounds(54, 90, 76, 14);
        frame.getContentPane().add(lblUsername);

        //label for password
        JLabel lblPassword = new JLabel("Password");
        lblPassword.setForeground(Color.WHITE);
        lblPassword.setBounds(54, 126, 76, 14);
        frame.getContentPane().add(lblPassword);

        //textfield for username
        username = new JTextField();
        username.setBounds(140, 87, 262, 20);
        frame.getContentPane().add(username);
        username.setColumns(10);

        //textfield for password
        password = new JTextField();
        password.setBounds(140, 123, 262, 20);
        frame.getContentPane().add(password);
        password.setColumns(10);


        //login button
        btnSignUp = new JButton("Sign Up");
        btnSignUp.setBounds(176, 167, 156, 23);
        frame.getContentPane().add(btnSignUp);
        btnSignUp.addActionListener(this);
    }

    @Override
```

```java
public void actionPerformed(ActionEvent e) {
        if (e.getSource() == btnSignUp) {
                boolean isExist = false;
                isExist = checkUsername(username.getText());
                if (!isExist)
                        register(username.getText(), password.getText());
                else
                        JOptionPane.showMessageDialog(contentPane,
"Username already existed");
        }

}

private boolean checkUsername(String username) {
        String record = null;
        FileReader in = null;
        boolean userStatus = false;

        try {
                in = new FileReader ("login.txt");
                BufferedReader br = new BufferedReader(in);
                /* userStatus = 0 (User doesn't exist)
                 * userStatus = 1 (User exist)
                 * userStatus = 2 (Wrong password)
                 * when username is wrong, userStatus is = 0
                 */

                //iterate through login.txt to find matching username and
password
                while ((record = br.readLine()) != null) {
                        String[] split = record.split("\\s");

                        if (username.equals(split[0])) {
                                System.out.println("User exists");
                                userStatus = true;
```

14

```java
                        break;
                    }
                }
            }catch (IOException ex) {
                ex.printStackTrace();
            }


        return userStatus;

    }


    //to register the user
    private void register(String username, String password) {
        PrintWriter out = null;
        try {


            //open the file "login.txt"
            out = new PrintWriter (new BufferedWriter (new
FileWriter("login.txt", true)));


            //write the username and password in form of:
            //username password
            out.print("\n" + username + " " + password);
            JOptionPane.showMessageDialog(contentPane, "    Account is
created");
            Login log = new Login();
            log.setVisible(true);
            frame.dispose();
        }
        catch (IOException ex) {
            ex.printStackTrace();
        }finally {
            if (out != null) {
                //always close the file after open
                out.close();
```

```
                                    }
                            }
                    }
            }
```

MovieBox Cinema BI19160330

```java
/**
 *
 * @author Vendrick Jalong BI19160330
 */
import java.awt.EventQueue;


import javax.swing.JFrame;
import javax.swing.JLabel;
import java.awt.Font;
import java.awt.Image;
import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;
import java.awt.event.MouseEvent;
import java.awt.event.MouseListener;

import javax.swing.*;
import java.awt.Color;

public class MovieBoxCinemaBI19160330 extends JFrame implements
MouseListener{
    private JFrame frame;
      JLabel lblPic;
      Timer timer;
      int x = 0;
```

```java
        //image banner name is movie1.jpg, etc..
          String[] picList = {"movie1.jpg", "movie2.jpg", "movie3.jpg", "movie4.jpg"};


          private JLabel picMovie1;
          private JLabel picMovie2;
          private JLabel picMovie3;
          private JLabel picMovie4;
          private JLabel lblMovie1Name;
          private JLabel lblMovie2Name;
          private JLabel lblMovie3Name;
          private JLabel lblMovie4Name;
          String username;



     /**
      * This method is called from within the constructor to initialize the form.
      * WARNING: Do NOT modify this code. The content of this method is always
      * regenerated by the Form Editor.
      */
     @SuppressWarnings("unchecked")
     // <editor-fold defaultstate="collapsed" desc="Generated Code">
     private void initComponents() {

         setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);


         javax.swing.GroupLayout layout = new
javax.swing.GroupLayout(getContentPane());
         getContentPane().setLayout(layout);
         layout.setHorizontalGroup(
             layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
             .addGap(0, 400, Short.MAX_VALUE)
         );
         layout.setVerticalGroup(
             layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
             .addGap(0, 300, Short.MAX_VALUE)
```

```java
    );


    pack();
}// </editor-fold>


/**
 * @param args the command line arguments
 */

    /** Launch the application.
     */
    public static void main(String[] args) {
        EventQueue.invokeLater(new Runnable() {
            public void run() {
                try {

                } catch (Exception e) {
                    e.printStackTrace();
                }
            }
        });
    }

    /**
     * Create the application.
     * this is the constructor
*/

    public MovieBoxCinemaBI19160330(String username) {
        frame = new JFrame();
            frame.getContentPane().setBackground(Color.BLACK);
            frame.setBounds(100, 100, 659, 573);
            frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
            frame.getContentPane().setLayout(null);
            setUsername(username);
```

```java
        initialize();
    }


    //to set username for buying purpose
    public void setUsername(String username) {
        System.out.println("user name is: " + username);
        this.username = username;
    }
    /**
     * Initialize the contents of the frame.
     */
private void initialize() {


        frame.setVisible(true);
        //title
        JLabel lblTitle = new JLabel("Movie Box Cinema");
        lblTitle.setForeground(Color.RED);
        lblTitle.setFont(new Font("Prestige Elite Std", Font.PLAIN, 22));
        lblTitle.setBounds(190, 11, 281, 33);
        frame.getContentPane().add(lblTitle);

     //for moving image. Image change every 2 second
     lblPic = new JLabel("New label");
        lblPic.setBounds(53, 52, 547, 152);
        frame.getContentPane().add(lblPic);
        SetImageSize(3);
        timer = new Timer(2000, new ActionListener() {
            @Override
            public void actionPerformed(ActionEvent e) {
                SetImageSize(x);
                x += 1;
                if (x >= picList.length)
                    x = 0;
            }
        });
```

```java
        frame.getContentPane().add(lblPic);


// all "picMovie1,2,3,4 is for the image poster
        picMovie1 = new JLabel("New label");
        picMovie1.setBounds(53, 262, 101, 138);
        frame.getContentPane().add(picMovie1);
        //image file name is small_movie_1.jpg
        SetImage("small_movie_1.jpg", picMovie1);
        //use mouseListener because we are clicking a label instead of button
        picMovie1.addMouseListener(this);

        picMovie2 = new JLabel("New label");
        picMovie2.setBounds(202, 262, 101, 138);
        frame.getContentPane().add(picMovie2);
        SetImage("small_movie_2.jpg", picMovie2);
        picMovie2.addMouseListener(this);

        picMovie3 = new JLabel("New label");
        picMovie3.setBounds(351, 262, 101, 138);
        frame.getContentPane().add(picMovie3);
        SetImage("small_movie_3.jpg", picMovie3);
        picMovie3.addMouseListener(this);

        picMovie4 = new JLabel("New label");
        picMovie4.setBounds(499, 262, 101, 138);
        frame.getContentPane().add(picMovie4);
        SetImage("small_movie_4.jpg", picMovie4);
        picMovie4.addMouseListener(this);

        //lblMovie1Name, etc... is for the movie title. Change as you wish
        lblMovie1Name = new JLabel("The Avengers");
        lblMovie1Name.setForeground(Color.WHITE);
        lblMovie1Name.setFont(new Font("Tahoma", Font.BOLD, 12));
        lblMovie1Name.setBounds(53, 411, 101, 14);
        frame.getContentPane().add(lblMovie1Name);
```

```java
            lblMovie2Name = new JLabel("Parasite");
            lblMovie2Name.setForeground(Color.WHITE);
            lblMovie2Name.setFont(new Font("Tahoma", Font.BOLD, 12));
            lblMovie2Name.setBounds(202, 411, 101, 14);
            frame.getContentPane().add(lblMovie2Name);

            lblMovie3Name = new JLabel("Unstoppable");
            lblMovie3Name.setForeground(Color.WHITE);
            lblMovie3Name.setFont(new Font("Tahoma", Font.BOLD, 12));
            lblMovie3Name.setBounds(351, 411, 101, 14);
            frame.getContentPane().add(lblMovie3Name);

            lblMovie4Name = new JLabel("Concussion");
            lblMovie4Name.setForeground(Color.WHITE);
            lblMovie4Name.setFont(new Font("Tahoma", Font.BOLD, 12));
            lblMovie4Name.setBounds(499, 411, 101, 14);
            frame.getContentPane().add(lblMovie4Name);
            timer.start();

    }

    //to set imageSize for movie BANNER (the moving image)
    private void SetImageSize(int i) {
            ImageIcon icon = new ImageIcon(picList[i]);
    Image img = icon.getImage();
    Image newImg = img.getScaledInstance(lblPic.getWidth(), lblPic.getHeight(),
Image.SCALE_SMOOTH);
    ImageIcon newImc = new ImageIcon(newImg);
    lblPic.setIcon(newImc);
    }

    //to set image size of movie POSTER
    private void SetImage(String image_path, JLabel picLabel) {
            ImageIcon icon = new ImageIcon(image_path);
```

```java
        Image img = icon.getImage();
        Image newImg = img.getScaledInstance(picLabel.getWidth(),
picLabel.getHeight(), Image.SCALE_SMOOTH);
        ImageIcon newImc = new ImageIcon(newImg);
        picLabel.setIcon(newImc);
          }

        @Override
        public void mouseClicked(MouseEvent e) {
                // TODO Auto-generated method stub

        }

        @Override
        public void mousePressed(MouseEvent e) {
                if (e.getSource() == picMovie1) {
                        Movie1 m1 = new Movie1(username);
                        m1.setVisible(true);
                        frame.dispose();
                }

                if (e.getSource() == picMovie2) {
                        Movie2 m2 = new Movie2(username);
                        m2.setVisible(true);
                        frame.dispose();
                }

                if (e.getSource() == picMovie3) {
                        Movie3 m3 = new Movie3(username);
                        m3.setVisible(true);
                        frame.dispose();
                }

                if (e.getSource() == picMovie4) {
                        Movie4 m4 = new Movie4(username);
```

```java
                m4.setVisible(true);
                frame.dispose();
        }

    }


    @Override
    public void mouseReleased(MouseEvent e) {
            // TODO Auto-generated method stub

    }


    @Override
    public void mouseEntered(MouseEvent e) {
            // TODO Auto-generated method stub

    }


    @Override
    public void mouseExited(MouseEvent e) {
            // TODO Auto-generated method stub

    }
}
```

MOVIE 1

```java
/**
 *
 * @author Vendrick Jalong BI19160330
 */
import java.awt.BorderLayout;

import java.awt.EventQueue;

import javax.swing.JFrame;
import javax.swing.JPanel;
import javax.swing.border.EmptyBorder;
import java.awt.Color;
import javax.swing.JLabel;
import javax.swing.JOptionPane;

import java.awt.Font;
import java.awt.Image;
import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;
import java.io.BufferedWriter;
import java.io.FileWriter;
import java.io.IOException;
import java.io.PrintWriter;

import javax.swing.ImageIcon;
import javax.swing.JButton;
import javax.swing.JSpinner;

import java.time.format.DateTimeFormatter;
import java.time.LocalDateTime;

/*
 * All the variable name in this program is self explanatory. Change the string in " "
as you wish
```

24

```java
 */
public class Movie1 extends JFrame implements ActionListener {


        private JPanel contentPane;
        JButton btnBuy;
        JLabel Price, Title, Duration;
        JSpinner spinnerQuantity;
        String username;
        JFrame frame;




    /**
     * This method is called from within the constructor to initialize the form.
     * WARNING: Do NOT modify this code. The content of this method is always
     * regenerated by the Form Editor.
     */
      /**
         * Launch the application.
         */
    @SuppressWarnings("unchecked")
    // <editor-fold defaultstate="collapsed" desc="Generated Code">
    private void initComponents() {

        setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);


        javax.swing.GroupLayout layout = new
javax.swing.GroupLayout(getContentPane());
        getContentPane().setLayout(layout);
        layout.setHorizontalGroup(
            layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGap(0, 400, Short.MAX_VALUE)
        );
        layout.setVerticalGroup(
            layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
```

```java
            .addGap(0, 300, Short.MAX_VALUE)
    );

    pack();
}// </editor-fold>

/**
 * @param args the command line arguments
 */
public static void main(String args[]) {
    EventQueue.invokeLater(new Runnable() {
                public void run() {
                        try {

                        } catch (Exception e) {
                                e.printStackTrace();
                        }
                }
        });
    }
    public void setUsername(String username) {
            System.out.println("user name is: " + username);
            this.username = username;
    }
    /**
     * Create the frame.
     * constructor
     */
    public Movie1(String username) {
            setUsername(username);
            frame = new JFrame();
            frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
            frame.setBounds(100, 100, 549, 556);
            frame.getContentPane().setBackground(Color.BLACK);
            frame.getContentPane().setLayout(null);
```

```java
            initialize();
    }
    private void initialize() {
            frame.setVisible(true);

            JLabel picMovie = new JLabel("New label");
            picMovie.setBounds(10, 11, 220, 435);
            frame.getContentPane().add(picMovie);
            ImageIcon icon = new ImageIcon("small_movie_1.jpg");
    Image img = icon.getImage();
    Image newImg = img.getScaledInstance(picMovie.getWidth(),
picMovie.getHeight(), Image.SCALE_SMOOTH);
    ImageIcon newImc = new ImageIcon(newImg);
    picMovie.setIcon(newImc);

            JLabel lblTitle = new JLabel("Movie Title");
            lblTitle.setForeground(Color.WHITE);
            lblTitle.setFont(new Font("Tahoma", Font.PLAIN, 12));
            lblTitle.setBounds(240, 11, 72, 14);
            frame.getContentPane().add(lblTitle);

            Title = new JLabel("The Avengers");
            Title.setForeground(Color.WHITE);
            Title.setFont(new Font("Times New Roman", Font.BOLD, 13));
            Title.setBounds(250, 27, 167, 14);
            frame.getContentPane().add(Title);

            JLabel lblReleaseDate = new JLabel("Release Date");
            lblReleaseDate.setFont(new Font("Tahoma", Font.PLAIN, 12));
            lblReleaseDate.setForeground(Color.WHITE);
            lblReleaseDate.setBounds(240, 65, 79, 14);
            frame.getContentPane().add(lblReleaseDate);

            JLabel ReleaseDate = new JLabel("12 July 2020");
            ReleaseDate.setFont(new Font("Times New Roman", Font.BOLD, 13));
```

27

```java
ReleaseDate.setForeground(Color.WHITE);
ReleaseDate.setBounds(250, 90, 131, 14);
frame.getContentPane().add(ReleaseDate);

JLabel lblSynopsis = new JLabel("Synopsis");
lblSynopsis.setFont(new Font("Tahoma", Font.PLAIN, 12));
lblSynopsis.setForeground(Color.WHITE);
lblSynopsis.setBounds(240, 130, 61, 14);
frame.getContentPane().add(lblSynopsis);

JLabel SynopsisLine1 = new JLabel("A group of superheroes is formed
to protect");
SynopsisLine1.setFont(new Font("Times New Roman", Font.BOLD,
13));
SynopsisLine1.setForeground(Color.WHITE);
SynopsisLine1.setBounds(250, 155, 241, 14);
frame.getContentPane().add(SynopsisLine1);

JLabel SynopsisLine2 = new JLabel("and serve the country against
bad devils");
SynopsisLine2.setForeground(Color.WHITE);
SynopsisLine2.setFont(new Font("Times New Roman", Font.BOLD,
13));
SynopsisLine2.setBounds(250, 180, 262, 14);
frame.getContentPane().add(SynopsisLine2);

JLabel SynopsisLine3 = new JLabel("who are trying to invade the
world.");
SynopsisLine3.setForeground(Color.WHITE);
SynopsisLine3.setFont(new Font("Times New Roman", Font.BOLD,
13));
SynopsisLine3.setBounds(250, 205, 262, 14);
frame.getContentPane().add(SynopsisLine3);

JLabel lblDuration = new JLabel("Movie Duration");
```

```java
lblDuration.setFont(new Font("Tahoma", Font.PLAIN, 12));
lblDuration.setForeground(Color.WHITE);
lblDuration.setBounds(240, 248, 101, 14);
frame.getContentPane().add(lblDuration);

Duration = new JLabel("2 Hours");
Duration.setForeground(Color.WHITE);
Duration.setFont(new Font("Times New Roman", Font.BOLD, 13));
Duration.setBounds(250, 273, 91, 14);
frame.getContentPane().add(Duration);

JLabel lblPrice = new JLabel("Price");
lblPrice.setFont(new Font("Tahoma", Font.PLAIN, 12));
lblPrice.setForeground(Color.WHITE);
lblPrice.setBounds(240, 313, 79, 14);
frame.getContentPane().add(lblPrice);

Price = new JLabel("RM 16");
Price.setFont(new Font("Times New Roman", Font.BOLD, 13));
Price.setForeground(Color.WHITE);
Price.setBounds(253, 338, 88, 16);
frame.getContentPane().add(Price);

btnBuy = new JButton("Buy");
btnBuy.setBounds(240, 423, 251, 23);
frame.getContentPane().add(btnBuy);

spinnerQuantity = new JSpinner();
spinnerQuantity.setBounds(297, 379, 72, 20);
frame.getContentPane().add(spinnerQuantity);

JLabel lblQty = new JLabel("Quantity");
lblQty.setForeground(Color.WHITE);
lblQty.setFont(new Font("Tahoma", Font.PLAIN, 12));
lblQty.setBounds(240, 381, 48, 14);
```

```java
                frame.getContentPane().add(lblQty);
                btnBuy.addActionListener(this);
        }


        @Override
        public void actionPerformed(ActionEvent e) {
                if (e.getSource() == btnBuy) {
                        PrintWriter out = null;
                        try {
                                //get time and date
                                DateTimeFormatter dtf =
DateTimeFormatter.ofPattern("yyyy/MM/dd HH:mm:ss");
                                LocalDateTime now = LocalDateTime.now();

                                //for total price. SpinnerQuantity value * price
                                //you can change the price as you wish
                                Double totalPrice =
Double.parseDouble(spinnerQuantity.getValue().toString()) * 16;
                                out = new PrintWriter (new BufferedWriter (new
FileWriter("invoice.txt", false)));
                                out.println("Movie Title : " + Title.getText() +
"\nDuration : " + Duration.getText() + "\nBuyer Username : " + username +
"\nPrice Per Unit : RM16" + "\nTotal : RM" + totalPrice + "\nDate/Time : " +
dtf.format(now));
                                JOptionPane.showMessageDialog(contentPane, "Movie
has been bought. Invoice is created!");
                                MovieBoxCinemaBI19160330 log = new
MovieBoxCinemaBI19160330(username);
                                log.setVisible(true);
                                frame.dispose();
                        }
                        catch (IOException ex) {
                                ex.printStackTrace();
                        }finally {
                                if (out != null) {
```

```
                              out.close();
                    }
          }
}

}
```

MOVIE 2

```java
/**
 *
 * @author Vendrick Jalong BI19160330
 */
import java.awt.BorderLayout;

import java.awt.EventQueue;

import javax.swing.JFrame;
import javax.swing.JPanel;
import javax.swing.border.EmptyBorder;
import java.awt.Color;
import javax.swing.JLabel;
import javax.swing.JOptionPane;

import java.awt.Font;
import java.awt.Image;
import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;
import java.io.BufferedWriter;
import java.io.FileWriter;
import java.io.IOException;
import java.io.PrintWriter;

import javax.swing.ImageIcon;
```

```java
import javax.swing.JButton;
import javax.swing.JSpinner;

import java.time.format.DateTimeFormatter;
import java.time.LocalDateTime;

public class Movie2 extends JFrame implements ActionListener {

    private JPanel contentPane;
    JButton btnBuy;
    JLabel Price, Title, Duration;
    JSpinner spinnerQuantity;
    String username;
    JFrame frame;

    /**
     * This method is called from within the constructor to initialize the form.
     * WARNING: Do NOT modify this code. The content of this method is always
     * regenerated by the Form Editor.
     */
    @SuppressWarnings("unchecked")
    // <editor-fold defaultstate="collapsed" desc="Generated Code">
    private void initComponents() {

        setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);

        javax.swing.GroupLayout layout = new
javax.swing.GroupLayout(getContentPane());
        getContentPane().setLayout(layout);
        layout.setHorizontalGroup(
            layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGap(0, 400, Short.MAX_VALUE)
        );
        layout.setVerticalGroup(
            layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
```

```java
                .addGap(0, 300, Short.MAX_VALUE)
    );


    pack();
}// </editor-fold>


/**
 * @param args the command line arguments
 */
   /* Launch the application.
       */
public static void main(String args[]) {
 EventQueue.invokeLater(new Runnable() {
                public void run() {
                        try {


                        } catch (Exception e) {
                                e.printStackTrace();
                        }
                }
            });
    }
    public void setUsername(String username) {
            System.out.println("user name is: " + username);
            this.username = username;
    }
    /**
     * Create the frame.
     */
    public Movie2(String username) {
            setUsername(username);
            frame = new JFrame();
            frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
            frame.setBounds(100, 100, 549, 556);
            frame.getContentPane().setBackground(Color.BLACK);
```

```java
            frame.getContentPane().setLayout(null);
            initialize();
    }
    private void initialize() {
            frame.setVisible(true);

            JLabel picMovie = new JLabel("New label");
            picMovie.setBounds(10, 11, 220, 435);
            frame.getContentPane().add(picMovie);
            ImageIcon icon = new ImageIcon("small_movie_2.jpg");
    Image img = icon.getImage();
    Image newImg = img.getScaledInstance(picMovie.getWidth(),
picMovie.getHeight(), Image.SCALE_SMOOTH);
    ImageIcon newImc = new ImageIcon(newImg);
    picMovie.setIcon(newImc);

            JLabel lblTitle = new JLabel("Movie Title");
            lblTitle.setForeground(Color.WHITE);
            lblTitle.setFont(new Font("Tahoma", Font.PLAIN, 12));
            lblTitle.setBounds(240, 11, 72, 14);
            frame.getContentPane().add(lblTitle);

            Title = new JLabel("Parasite");
            Title.setForeground(Color.WHITE);
            Title.setFont(new Font("Times New Roman", Font.BOLD, 13));
            Title.setBounds(250, 27, 167, 14);
            frame.getContentPane().add(Title);

            JLabel lblReleaseDate = new JLabel("Release Date");
            lblReleaseDate.setFont(new Font("Tahoma", Font.PLAIN, 12));
            lblReleaseDate.setForeground(Color.WHITE);
            lblReleaseDate.setBounds(240, 65, 79, 14);
            frame.getContentPane().add(lblReleaseDate);

            JLabel ReleaseDate = new JLabel("20 July 2020");
```

```java
ReleaseDate.setFont(new Font("Times New Roman", Font.BOLD, 13));
ReleaseDate.setForeground(Color.WHITE);
ReleaseDate.setBounds(250, 90, 131, 14);
frame.getContentPane().add(ReleaseDate);

JLabel lblSynopsis = new JLabel("Synopsis");
lblSynopsis.setFont(new Font("Tahoma", Font.PLAIN, 12));
lblSynopsis.setForeground(Color.WHITE);
lblSynopsis.setBounds(240, 130, 61, 14);
frame.getContentPane().add(lblSynopsis);

JLabel SynopsisLine1 = new JLabel("Greed and class discrimination
threaten the");
SynopsisLine1.setFont(new Font("Times New Roman", Font.BOLD,
13));
SynopsisLine1.setForeground(Color.WHITE);
SynopsisLine1.setBounds(250, 155, 241, 14);
frame.getContentPane().add(SynopsisLine1);

JLabel SynopsisLine2 = new JLabel("newly formed symbiotic
relationship");
SynopsisLine2.setForeground(Color.WHITE);
SynopsisLine2.setFont(new Font("Times New Roman", Font.BOLD,
13));
SynopsisLine2.setBounds(250, 180, 262, 14);
frame.getContentPane().add(SynopsisLine2);

JLabel SynopsisLine3 = new JLabel("the wealthy and Park's family.");
SynopsisLine3.setForeground(Color.WHITE);
SynopsisLine3.setFont(new Font("Times New Roman", Font.BOLD,
13));
SynopsisLine3.setBounds(250, 205, 262, 14);
frame.getContentPane().add(SynopsisLine3);

JLabel lblDuration = new JLabel("Movie Duration");
```

```java
lblDuration.setFont(new Font("Tahoma", Font.PLAIN, 12));
lblDuration.setForeground(Color.WHITE);
lblDuration.setBounds(240, 248, 101, 14);
frame.getContentPane().add(lblDuration);


Duration = new JLabel("2 Hours");
Duration.setForeground(Color.WHITE);
Duration.setFont(new Font("Times New Roman", Font.BOLD, 13));
Duration.setBounds(250, 273, 91, 14);
frame.getContentPane().add(Duration);


JLabel lblPrice = new JLabel("Price");
lblPrice.setFont(new Font("Tahoma", Font.PLAIN, 12));
lblPrice.setForeground(Color.WHITE);
lblPrice.setBounds(240, 313, 79, 14);
frame.getContentPane().add(lblPrice);


Price = new JLabel("RM 16");
Price.setFont(new Font("Times New Roman", Font.BOLD, 13));
Price.setForeground(Color.WHITE);
Price.setBounds(253, 338, 88, 16);
frame.getContentPane().add(Price);


btnBuy = new JButton("Buy");
btnBuy.setBounds(240, 423, 251, 23);
frame.getContentPane().add(btnBuy);


spinnerQuantity = new JSpinner();
spinnerQuantity.setBounds(297, 379, 72, 20);
frame.getContentPane().add(spinnerQuantity);


JLabel lblQty = new JLabel("Quantity");
lblQty.setForeground(Color.WHITE);
lblQty.setFont(new Font("Tahoma", Font.PLAIN, 12));
lblQty.setBounds(240, 381, 48, 14);
```

```java
            frame.getContentPane().add(lblQty);
            btnBuy.addActionListener(this);
    }


    @Override
    public void actionPerformed(ActionEvent e) {
        if (e.getSource() == btnBuy) {
            PrintWriter out = null;
            try {
                //get time and date
                DateTimeFormatter dtf =
DateTimeFormatter.ofPattern("yyyy/MM/dd HH:mm:ss");
                LocalDateTime now = LocalDateTime.now();
                Double totalPrice =
Double.parseDouble(spinnerQuantity.getValue().toString()) * 16;
                out = new PrintWriter (new BufferedWriter (new
FileWriter("invoice.txt", false)));
                out.println("Movie Title : " + Title.getText() +
"\nDuration : " + Duration.getText() + "\nBuyer Username : " + username +
"\nPrice Per Unit : RM16" + "\nTotal : RM" + totalPrice + "\nDate/Time : " +
dtf.format(now));
                JOptionPane.showMessageDialog(contentPane, "Movie
has been bought. Invoice is created!");
                MovieBoxCinemaBI19160330 log = new
MovieBoxCinemaBI19160330(username);
                log.setVisible(true);
                frame.dispose();
            }
            catch (IOException ex) {
                ex.printStackTrace();
            }finally {
                if (out != null) {
                    out.close();
                }
            }
```

```
            }


        }
}
```

MOVIE 3

```java
/**
 *
 * @author Vendrick Jalong BI19160330
 */
import java.awt.BorderLayout;

import java.awt.EventQueue;

import javax.swing.JFrame;
import javax.swing.JPanel;
import javax.swing.border.EmptyBorder;
import java.awt.Color;
import javax.swing.JLabel;
import javax.swing.JOptionPane;

import java.awt.Font;
import java.awt.Image;
import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;
import java.io.BufferedWriter;
import java.io.FileWriter;
import java.io.IOException;
import java.io.PrintWriter;

import javax.swing.ImageIcon;
import javax.swing.JButton;
import javax.swing.JSpinner;
```

```java
import java.time.format.DateTimeFormatter;
import java.time.LocalDateTime;

public class Movie3 extends JFrame implements ActionListener {

        private JPanel contentPane;
        JButton btnBuy;
        JLabel Price, Title, Duration;
        JSpinner spinnerQuantity;
        String username;
        JFrame frame;


    /**
     * This method is called from within the constructor to initialize the form.
     * WARNING: Do NOT modify this code. The content of this method is always
     * regenerated by the Form Editor.
     */
    @SuppressWarnings("unchecked")
    // <editor-fold defaultstate="collapsed" desc="Generated Code">
    private void initComponents() {

        setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);

        javax.swing.GroupLayout layout = new
javax.swing.GroupLayout(getContentPane());
        getContentPane().setLayout(layout);
        layout.setHorizontalGroup(
            layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGap(0, 400, Short.MAX_VALUE)
        );
        layout.setVerticalGroup(
            layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGap(0, 300, Short.MAX_VALUE)
```

```java
        );

    pack();
}// </editor-fold>

/**
 * @param args the command line arguments
 */
    /* Launch the application.
      */
public static void main(String args[]) {
  EventQueue.invokeLater(new Runnable() {
                    public void run() {
                            try {

                            } catch (Exception e) {
                                    e.printStackTrace();
                            }
                    }
            });
    }
    public void setUsername(String username) {
            System.out.println("user name is: " + username);
            this.username = username;
    }
    /**
     * Create the frame.
     */
    public Movie3(String username) {
            setUsername(username);
            frame = new JFrame();
            frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
            frame.setBounds(100, 100, 549, 556);
            frame.getContentPane().setBackground(Color.BLACK);
            frame.getContentPane().setLayout(null);
```

```
                initialize();
        }
      private void initialize() {
                frame.setVisible(true);

                JLabel picMovie = new JLabel("New label");
                picMovie.setBounds(10, 11, 220, 435);
                frame.getContentPane().add(picMovie);
                ImageIcon icon = new ImageIcon("small_movie_3.jpg");
        Image img = icon.getImage();
        Image newImg = img.getScaledInstance(picMovie.getWidth(),
  picMovie.getHeight(), Image.SCALE_SMOOTH);
        ImageIcon newImc = new ImageIcon(newImg);
        picMovie.setIcon(newImc);

                JLabel lblTitle = new JLabel("Movie Title");
                lblTitle.setForeground(Color.WHITE);
                lblTitle.setFont(new Font("Tahoma", Font.PLAIN, 12));
                lblTitle.setBounds(240, 11, 72, 14);
                frame.getContentPane().add(lblTitle);

                Title = new JLabel("Unstoppable");
                Title.setForeground(Color.WHITE);
                Title.setFont(new Font("Times New Roman", Font.BOLD, 13));
                Title.setBounds(250, 27, 167, 14);
                frame.getContentPane().add(Title);

                JLabel lblReleaseDate = new JLabel("Release Date");
                lblReleaseDate.setFont(new Font("Tahoma", Font.PLAIN, 12));
                lblReleaseDate.setForeground(Color.WHITE);
                lblReleaseDate.setBounds(240, 65, 79, 14);
                frame.getContentPane().add(lblReleaseDate);

                JLabel ReleaseDate = new JLabel("16 July 2020");
                ReleaseDate.setFont(new Font("Times New Roman", Font.BOLD, 13));
```

```
ReleaseDate.setForeground(Color.WHITE);
ReleaseDate.setBounds(250, 90, 131, 14);
frame.getContentPane().add(ReleaseDate);

JLabel lblSynopsis = new JLabel("Synopsis");
lblSynopsis.setFont(new Font("Tahoma", Font.PLAIN, 12));
lblSynopsis.setForeground(Color.WHITE);
lblSynopsis.setBounds(240, 130, 61, 14);
frame.getContentPane().add(lblSynopsis);

JLabel SynopsisLine1 = new JLabel("A legendary, hard hitting
gangster comes");
SynopsisLine1.setFont(new Font("Times New Roman", Font.BOLD,
13));
SynopsisLine1.setForeground(Color.WHITE);
SynopsisLine1.setBounds(250, 155, 241, 14);
frame.getContentPane().add(SynopsisLine1);

JLabel SynopsisLine2 = new JLabel("out of retirement to save ");
SynopsisLine2.setForeground(Color.WHITE);
SynopsisLine2.setFont(new Font("Times New Roman", Font.BOLD,
13));
SynopsisLine2.setBounds(250, 180, 262, 14);
frame.getContentPane().add(SynopsisLine2);

JLabel SynopsisLine3 = new JLabel("his kidnapped wife.");
SynopsisLine3.setForeground(Color.WHITE);
SynopsisLine3.setFont(new Font("Times New Roman", Font.BOLD,
13));
SynopsisLine3.setBounds(250, 205, 262, 14);
frame.getContentPane().add(SynopsisLine3);

JLabel lblDuration = new JLabel("Movie Duration");
lblDuration.setFont(new Font("Tahoma", Font.PLAIN, 12));
lblDuration.setForeground(Color.WHITE);
```

```java
lblDuration.setBounds(240, 248, 101, 14);
frame.getContentPane().add(lblDuration);

Duration = new JLabel("2 Hours");
Duration.setForeground(Color.WHITE);
Duration.setFont(new Font("Times New Roman", Font.BOLD, 13));
Duration.setBounds(250, 273, 91, 14);
frame.getContentPane().add(Duration);

JLabel lblPrice = new JLabel("Price");
lblPrice.setFont(new Font("Tahoma", Font.PLAIN, 12));
lblPrice.setForeground(Color.WHITE);
lblPrice.setBounds(240, 313, 79, 14);
frame.getContentPane().add(lblPrice);

Price = new JLabel("RM 16");
Price.setFont(new Font("Times New Roman", Font.BOLD, 13));
Price.setForeground(Color.WHITE);
Price.setBounds(253, 338, 88, 16);
frame.getContentPane().add(Price);

btnBuy = new JButton("Buy");
btnBuy.setBounds(240, 423, 251, 23);
frame.getContentPane().add(btnBuy);

spinnerQuantity = new JSpinner();
spinnerQuantity.setBounds(297, 379, 72, 20);
frame.getContentPane().add(spinnerQuantity);

JLabel lblQty = new JLabel("Quantity");
lblQty.setForeground(Color.WHITE);
lblQty.setFont(new Font("Tahoma", Font.PLAIN, 12));
lblQty.setBounds(240, 381, 48, 14);
frame.getContentPane().add(lblQty);
btnBuy.addActionListener(this);
```

```java
        }

        @Override
        public void actionPerformed(ActionEvent e) {
                if (e.getSource() == btnBuy) {
                        PrintWriter out = null;
                        try {
                                //get time and date
                                DateTimeFormatter dtf =
DateTimeFormatter.ofPattern("yyyy/MM/dd HH:mm:ss");
                                LocalDateTime now = LocalDateTime.now();
                                Double totalPrice =
Double.parseDouble(spinnerQuantity.getValue().toString()) * 16;
                                out = new PrintWriter (new BufferedWriter (new
FileWriter("invoice.txt", false)));
                                out.println("Movie Title : " + Title.getText() +
"\nDuration : " + Duration.getText() + "\nBuyer Username : " + username +
"\nPrice Per Unit : RM16" + "\nTotal : RM" + totalPrice + "\nDate/Time : " +
dtf.format(now));
                                JOptionPane.showMessageDialog(contentPane, "Movie
has been bought. Invoice is created!");
                                MovieBoxCinemaBI19160330 log = new
MovieBoxCinemaBI19160330(username);
                                log.setVisible(true);
                                frame.dispose();
                        }
                        catch (IOException ex) {
                                ex.printStackTrace();
                        }finally {
                                if (out != null) {
                                        out.close();
                                }
                        }
                }
```

```java
        }
}
```

MOVIE 4

```java
/**
 *
 * @author Vendrick Jalong BI19160330
 */

import java.awt.BorderLayout;

import java.awt.EventQueue;

import javax.swing.JFrame;
import javax.swing.JPanel;
import javax.swing.border.EmptyBorder;
import java.awt.Color;
import javax.swing.JLabel;
import javax.swing.JOptionPane;

import java.awt.Font;
import java.awt.Image;
import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;
import java.io.BufferedWriter;
import java.io.FileWriter;
import java.io.IOException;
import java.io.PrintWriter;

import javax.swing.ImageIcon;
import javax.swing.JButton;
import javax.swing.JSpinner;
```

```java
import java.time.format.DateTimeFormatter;
import java.time.LocalDateTime;

public class Movie4 extends JFrame implements ActionListener {

    private JPanel contentPane;
    JButton btnBuy;
    JLabel Price, Title, Duration;
    JSpinner spinnerQuantity;
    String username;
    JFrame frame;
    /**
     * This method is called from within the constructor to initialize the form.
     * WARNING: Do NOT modify this code. The content of this method is always
     * regenerated by the Form Editor.
     */
    @SuppressWarnings("unchecked")
    // <editor-fold defaultstate="collapsed" desc="Generated Code">
    private void initComponents() {

        setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);

        javax.swing.GroupLayout layout = new
javax.swing.GroupLayout(getContentPane());
        getContentPane().setLayout(layout);
        layout.setHorizontalGroup(
            layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGap(0, 400, Short.MAX_VALUE)
        );
        layout.setVerticalGroup(
            layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGap(0, 300, Short.MAX_VALUE)
        );

        pack();
```

```java
}// </editor-fold>

/**
 * @param args the command line arguments
 */
    /* Launch the application.
     */
public static void main(String args[]) {
    EventQueue.invokeLater(new Runnable() {
                public void run() {
                        try {

                        } catch (Exception e) {
                                e.printStackTrace();
                        }
                }
        });
    }
    public void setUsername(String username) {
            System.out.println("user name is: " + username);
            this.username = username;
    }
    /**
     * Create the frame.
     */
    public Movie4(String username) {
            setUsername(username);
            frame = new JFrame();
            frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
            frame.setBounds(100, 100, 549, 556);
            frame.getContentPane().setBackground(Color.BLACK);
            frame.getContentPane().setLayout(null);
            initialize();
    }
    private void initialize() {
```

```java
frame.setVisible(true);

JLabel picMovie = new JLabel("New label");
picMovie.setBounds(10, 11, 220, 435);
frame.getContentPane().add(picMovie);
ImageIcon icon = new ImageIcon("small_movie_4.jpg");
Image img = icon.getImage();
Image newImg = img.getScaledInstance(picMovie.getWidth(),
picMovie.getHeight(), Image.SCALE_SMOOTH);
ImageIcon newImc = new ImageIcon(newImg);
picMovie.setIcon(newImc);

JLabel lblTitle = new JLabel("Movie Title");
lblTitle.setForeground(Color.WHITE);
lblTitle.setFont(new Font("Tahoma", Font.PLAIN, 12));
lblTitle.setBounds(240, 11, 72, 14);
frame.getContentPane().add(lblTitle);

Title = new JLabel("Concussion");
Title.setForeground(Color.WHITE);
Title.setFont(new Font("Times New Roman", Font.BOLD, 13));
Title.setBounds(250, 27, 167, 14);
frame.getContentPane().add(Title);

JLabel lblReleaseDate = new JLabel("Release Date");
lblReleaseDate.setFont(new Font("Tahoma", Font.PLAIN, 12));
lblReleaseDate.setForeground(Color.WHITE);
lblReleaseDate.setBounds(240, 65, 79, 14);
frame.getContentPane().add(lblReleaseDate);

JLabel ReleaseDate = new JLabel("22 July 2020");
ReleaseDate.setFont(new Font("Times New Roman", Font.BOLD, 13));
ReleaseDate.setForeground(Color.WHITE);
ReleaseDate.setBounds(250, 90, 131, 14);
frame.getContentPane().add(ReleaseDate);
```

```java
JLabel lblSynopsis = new JLabel("Synopsis");
lblSynopsis.setFont(new Font("Tahoma", Font.PLAIN, 12));
lblSynopsis.setForeground(Color.WHITE);
lblSynopsis.setBounds(240, 130, 61, 14);
frame.getContentPane().add(lblSynopsis);

JLabel SynopsisLine1 = new JLabel("Dr Bennett Omalu tries to
convince and");
SynopsisLine1.setFont(new Font("Times New Roman", Font.BOLD,
13));
SynopsisLine1.setForeground(Color.WHITE);
SynopsisLine1.setBounds(250, 155, 241, 14);
frame.getContentPane().add(SynopsisLine1);

JLabel SynopsisLine2 = new JLabel("create awareness to the public");
SynopsisLine2.setForeground(Color.WHITE);
SynopsisLine2.setFont(new Font("Times New Roman", Font.BOLD,
13));
SynopsisLine2.setBounds(250, 180, 262, 14);
frame.getContentPane().add(SynopsisLine2);

JLabel SynopsisLine3 = new JLabel("about chronic traumatic
encephalopathy.");
SynopsisLine3.setForeground(Color.WHITE);
SynopsisLine3.setFont(new Font("Times New Roman", Font.BOLD,
13));
SynopsisLine3.setBounds(250, 205, 262, 14);
frame.getContentPane().add(SynopsisLine3);

JLabel lblDuration = new JLabel("Movie Duration");
lblDuration.setFont(new Font("Tahoma", Font.PLAIN, 12));
lblDuration.setForeground(Color.WHITE);
lblDuration.setBounds(240, 248, 101, 14);
frame.getContentPane().add(lblDuration);
```

```java
        Duration = new JLabel("2 Hours");
        Duration.setForeground(Color.WHITE);
        Duration.setFont(new Font("Times New Roman", Font.BOLD, 13));
        Duration.setBounds(250, 273, 91, 14);
        frame.getContentPane().add(Duration);

        JLabel lblPrice = new JLabel("Price");
        lblPrice.setFont(new Font("Tahoma", Font.PLAIN, 12));
        lblPrice.setForeground(Color.WHITE);
        lblPrice.setBounds(240, 313, 79, 14);
        frame.getContentPane().add(lblPrice);

        Price = new JLabel("RM 16");
        Price.setFont(new Font("Times New Roman", Font.BOLD, 13));
        Price.setForeground(Color.WHITE);
        Price.setBounds(253, 338, 88, 16);
        frame.getContentPane().add(Price);

        btnBuy = new JButton("Buy");
        btnBuy.setBounds(240, 423, 251, 23);
        frame.getContentPane().add(btnBuy);

        spinnerQuantity = new JSpinner();
        spinnerQuantity.setBounds(297, 379, 72, 20);
        frame.getContentPane().add(spinnerQuantity);

        JLabel lblQty = new JLabel("Quantity");
        lblQty.setForeground(Color.WHITE);
        lblQty.setFont(new Font("Tahoma", Font.PLAIN, 12));
        lblQty.setBounds(240, 381, 48, 14);
        frame.getContentPane().add(lblQty);
        btnBuy.addActionListener(this);
    }
```

```java
        @Override
        public void actionPerformed(ActionEvent e) {
                if (e.getSource() == btnBuy) {
                        PrintWriter out = null;
                        try {
                                //get time and date
                                DateTimeFormatter dtf =
DateTimeFormatter.ofPattern("yyyy/MM/dd HH:mm:ss");
                                LocalDateTime now = LocalDateTime.now();
                                Double totalPrice =
Double.parseDouble(spinnerQuantity.getValue().toString()) * 16;
                                out = new PrintWriter (new BufferedWriter (new
FileWriter("invoice.txt", false)));
                                out.println("Movie Title : " + Title.getText() +
"\nDuration : " + Duration.getText() + "\nBuyer Username : " + username +
"\nPrice Per Unit : RM16" + "\nTotal : RM" + totalPrice + "\nDate/Time : " +
dtf.format(now));
                                JOptionPane.showMessageDialog(contentPane, "Movie
has been bought. Invoice is created!");
                                MovieBoxCinemaBI19160330 log = new
MovieBoxCinemaBI19160330(username);
                                log.setVisible(true);
                                frame.dispose();
                        }
                        catch (IOException ex) {
                                ex.printStackTrace();
                        }finally {
                                if (out != null) {
                                        out.close();
                                }
                        }
                }

        }
}
```

OBJECT ORIENTED CONCEPT IMPLEMENTATION

1. Object & Classes

```java
public class MovieBoxCinemaBI19160330 extends JFrame implements MouseListener{
        private JFrame frame;
        JLabel lblPic;
        Timer timer;
        int x = 0;

        //image banner name is movie1.jpg, etc..
        String[] picList = {"movie1.jpg", "movie2.jpg", "movie3.jpg", "movie4.jpg"};

        private JLabel picMovie1;
        private JLabel picMovie2;
        private JLabel picMovie3;
        private JLabel picMovie4;
        private JLabel lblMovie1Name;
        private JLabel lblMovie2Name;
        private JLabel lblMovie3Name;
        private JLabel lblMovie4Name;
        String username;
```

2. Abstraction

```java
        frame.getContentPane().setBackground(Color.BLACK);
        frame.setBounds(100, 100, 659, 573);
        frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
        frame.getContentPane().setLayout(null);
        setUsername(username);
        initialize();
```

3. Interface

```java
        lblPic = new JLabel("New label");
        lblPic.setBounds(53, 52, 547, 152);
        frame.getContentPane().add(lblPic);
        SetImageSize(3);
        timer = new Timer(2000, new ActionListener() {
                @Override
                public void actionPerformed(ActionEvent e) {
                        SetImageSize(x);
                        x += 1;
                        if (x >= picList.length)
                                x = 0;
                }
        });
```

52

4. Inner Class

```
        JLabel lblQty = new JLabel("Quantity");
        lblQty.setForeground(Color.WHITE);
        lblQty.setFont(new Font("Tahoma", Font.PLAIN, 12));
        lblQty.setBounds(240, 381, 48, 14);
        frame.getContentPane().add(lblQty);
        btnBuy.addActionListener(this);
}


@Override
public void actionPerformed(ActionEvent e) {
        if (e.getSource() == btnBuy) {
                PrintWriter out = null;
                try {
                        //get time and date
```

5. Encapsulation

    a. Public static void main

```
public static void main(String[] args) {
        EventQueue.invokeLater(new Runnable() {
                public void run() {
                        try {

                        } catch (Exception e) {
                                e.printStackTrace();
                        }
                }
        });
}
```

    b. Public void action performed

```
public void actionPerformed(ActionEvent e) {
        if (e.getSource() == btnBuy) {
                PrintWriter out = null;
                try {
                        //get time and date
                        DateTimeFormatter dtf = DateTimeFormatter.ofPattern("yyyy/MM/dd HH:mm:ss");
                        LocalDateTime now = LocalDateTime.now();

                        //for total price. SpinnerQuantity value * price
                        //you can change the price as you wish
                        Double totalPrice = Double.parseDouble(spinnerQuantity.getValue().toString()) * 16;
                        out = new PrintWriter (new BufferedWriter (new FileWriter("invoice.txt", false)));
                        out.println("Movie Title : " + Title.getText() + "\nDuration : " + Duration.getText() + "\nBuyer Usernam
                        JOptionPane.showMessageDialog(contentPane, "Movie has been bought. Invoice is created!");
                        MovieBoxCinemaBI19160330 log = new MovieBoxCinemaBI19160330(username);
                        log.setVisible(true);
                        frame.dispose();
                }
                catch (IOException ex) {
                        ex.printStackTrace();
                }finally {
                        if (out != null) {
                                out.close();
                        }
                }
        }
}
```

READ AND WRITE IMPLEMENTATION

In this project, an interaction between the user and the programme are needed to make everything works. The user need to give inputs to the programme so that the programme can do what is the user wanted. To get to the main site or homepage of the cinema interface, user needs to login their account by typing their username and password. By doing this this, a txt file is created (login.txt) to store and get the data for the programme as a storage so that after the user created an account, the user will be able to login his/her account. This file is located at the directory of this project so that the programme can find and process everything.
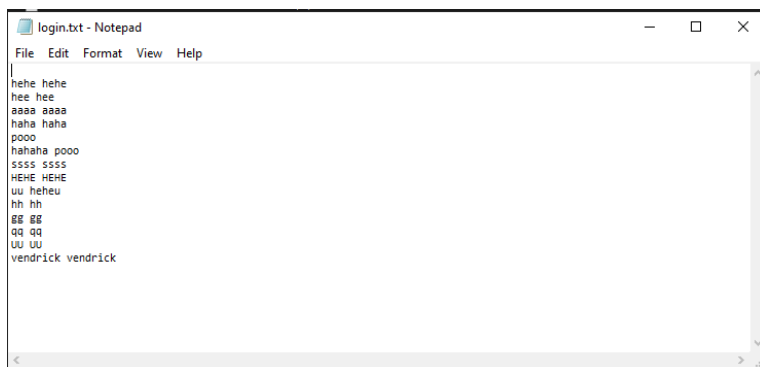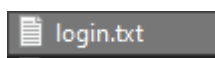
If the user creates an account that has already been created during singing up, a pop up message will show "Username already existed!". The user needs to pick another username to be able to sign up. This shows that the programme reads the data stored in the txt file and warns the user.
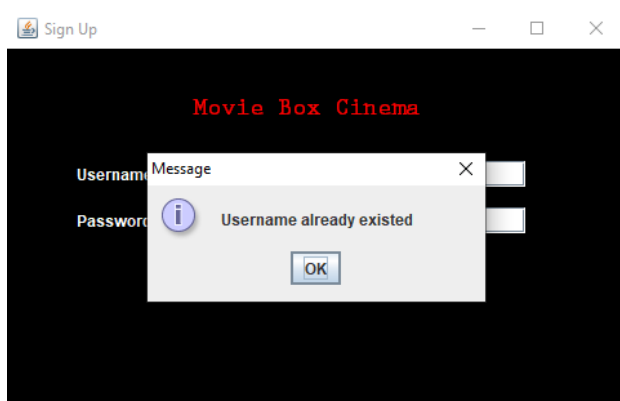
An account that has been created can directly login and go to the main page but if the password entered wrong. It will show a sign saying "Wrong password. Please Reenter", this mean the user need to type in the right password.
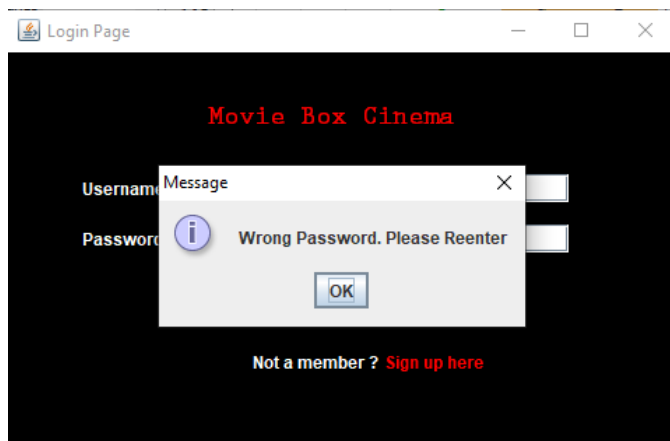
In the main page, there will be an animation of movies going around and four (4) movies are listed to be clicked on. These movies that being displayed are files of jpg file that are located in the directory of this project. This lets the programme to run and display the pictures of these movies.
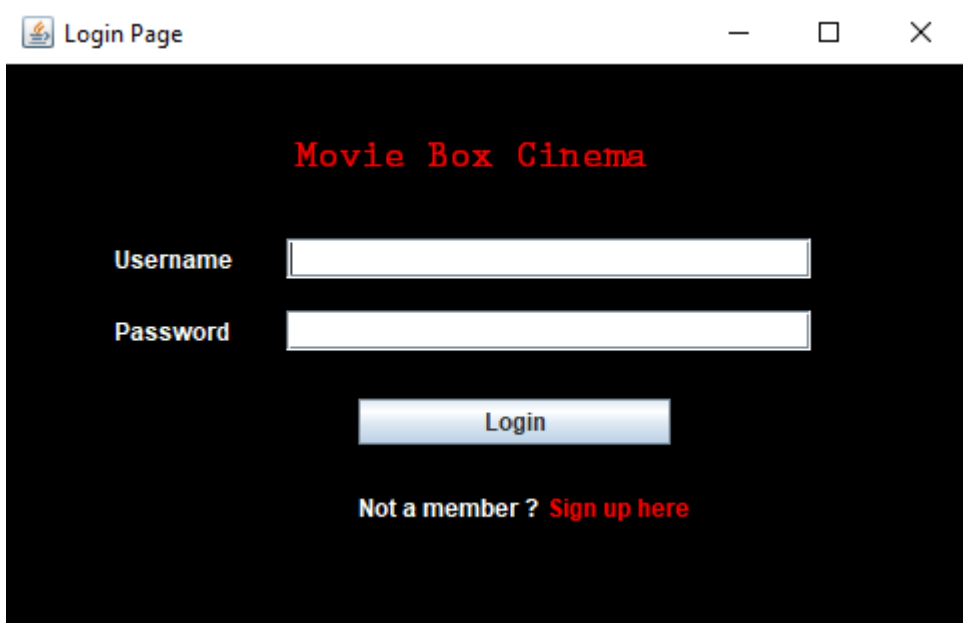
If one these four movies is clicked, a display of description will show and click on the quantity to be picked. After that click on 'Buy' button to confirm the purchase of the movie and a message will pop up and invoice is generated in a txt file found in the directory.
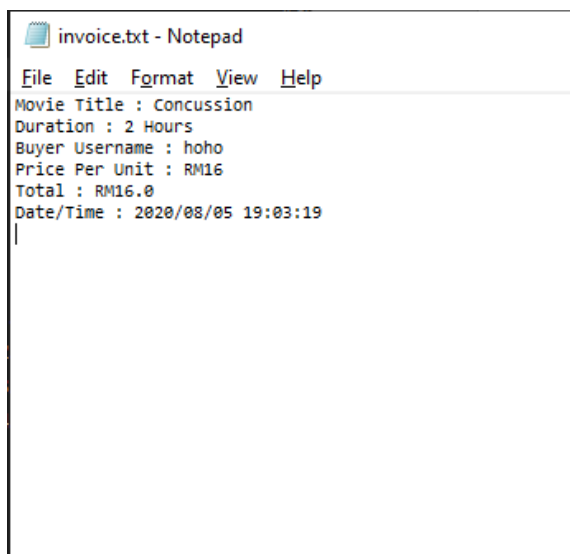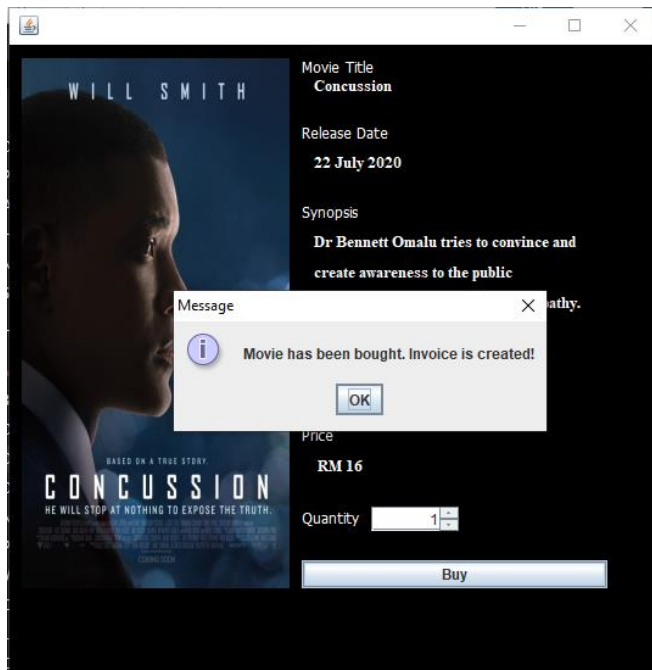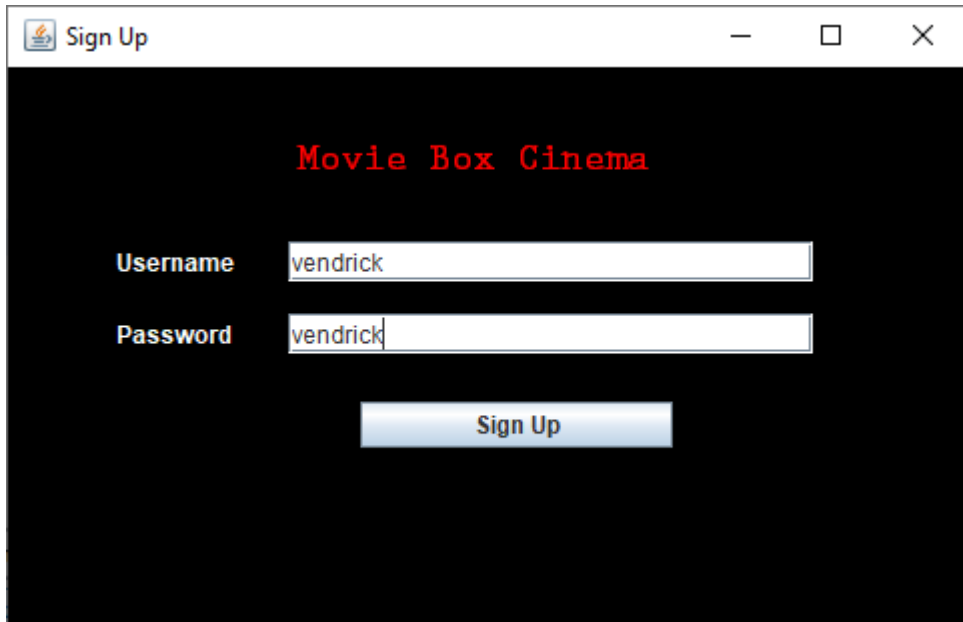
USER MANUAL

1. User has to login before entering to homepage. Fill in the username and password.

2. If user does not have an account, click on Sign Up Here. If user has an account proceed to click on Login.
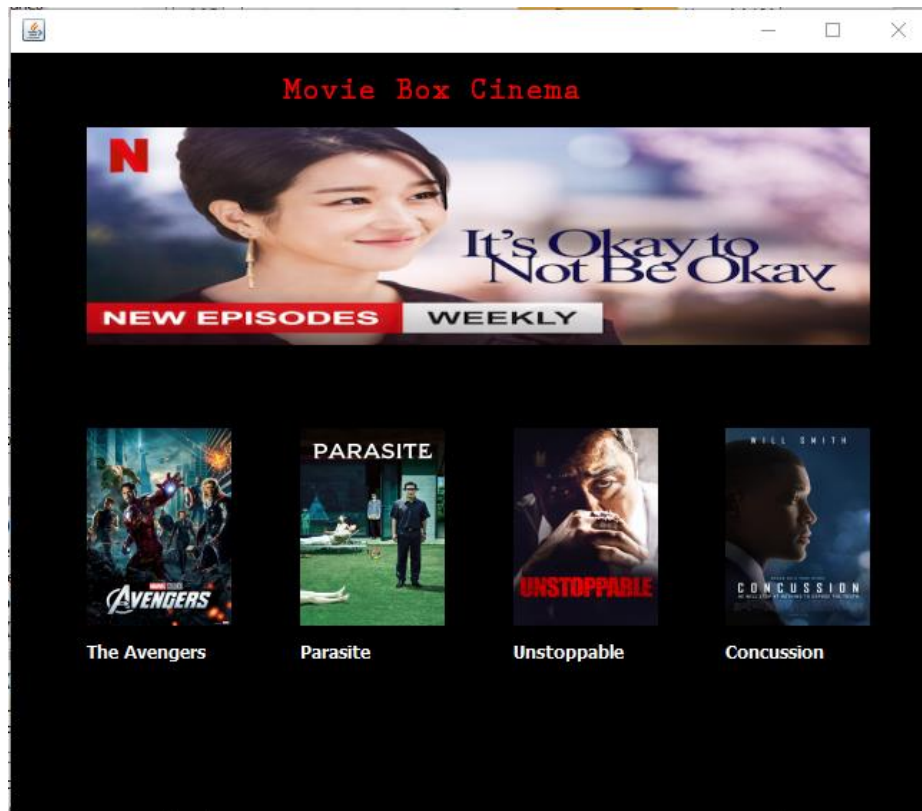
3. If account is created, a message will pop up as below.
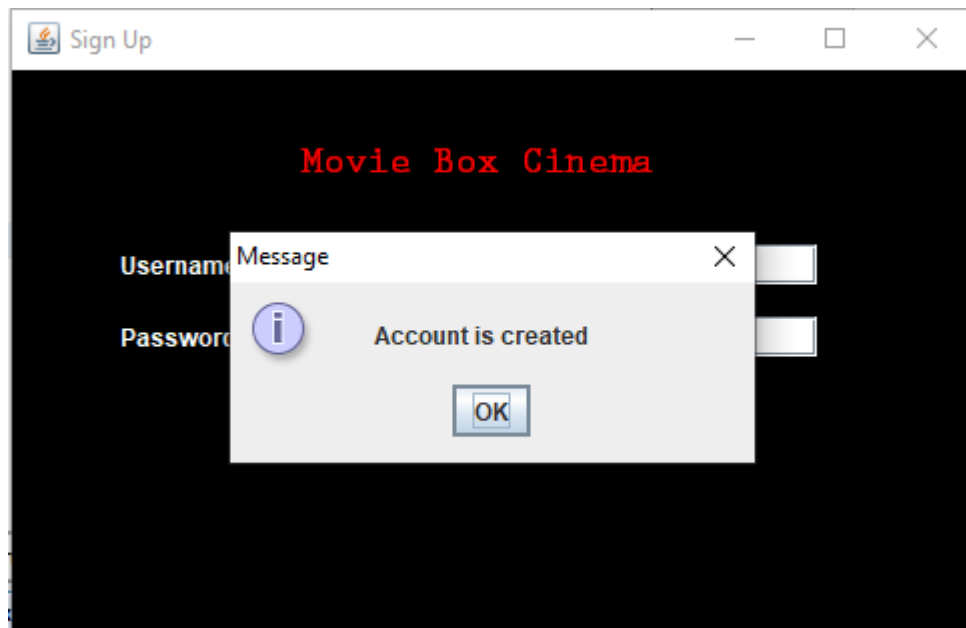
4. You will be directly to Login page right after closing the message or click 'OK'. Now, fill in your username and password that you have created then click 'Login'.
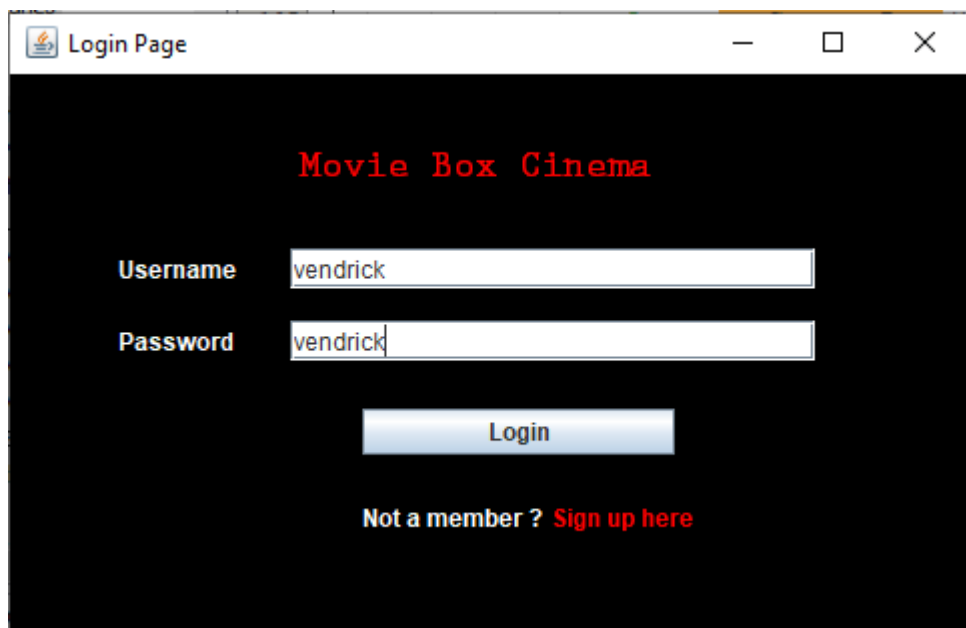
5. The main page of the interface will show up. You will see 4 listed movies are showing up and each movie can be selected or choose to purchase.

6. Click any one of the movie you would like to buy and choose how many ticket you wish to buy for (quantity).

7. After that, click the button 'Buy', you will be shown a pop up message saying "Movie has been bought. Invoice is created!". Then, click on 'OK', you will directly go to the main page again. If you wish to purchase other movies, repeat step 5 to 7.
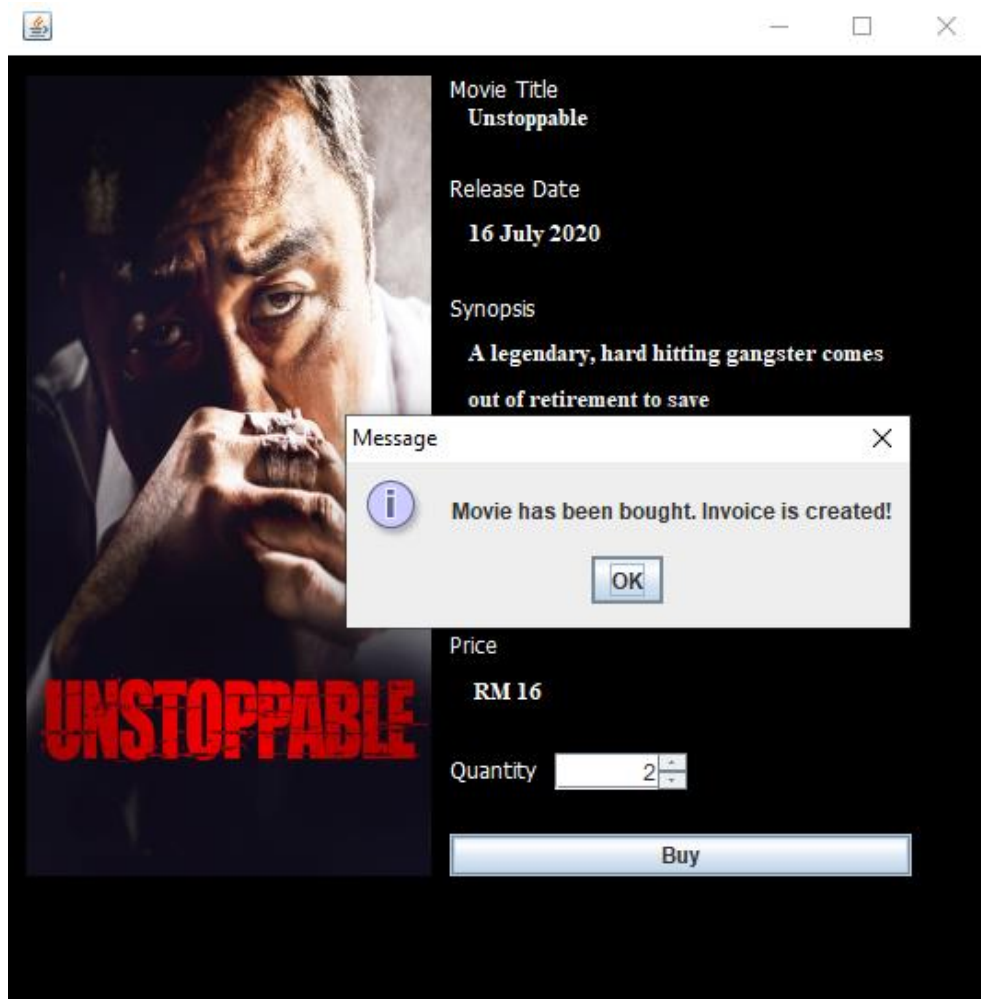
CONCLUSION

To conclude everything in this project, every objective of this project has been reached as it runs on simulator (Java). This project involves implementation of JAVA GUI and concepts of OOP (Object-Oriented Programme) which are a part of the requirements of this project as well as the read and write implementation. This project

As a first-timer to experience doing this, it takes time to complete and finish this work fine. However, of doing this project, I get to expand my knowledge even more in Java along the way. Lastly, any improvement can be done if it is needed to make the interface even more better in the future.