Major project: Digital_clock

```
package My_Digital_clock;
import javax.swing.Timer;
import java.awt.EventQueue;
import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;
import javax.swing.JFrame;
import javax.swing.JLabel;
import javax.swing.JPanel;
import javax.swing.border.EmptyBorder;
import java.util.Calendar;
import java.awt.Font;
import java.awt.Color;
public class my_digital_clock extends JFrame {

	private static final long serialVersionUID = 1L;
	private JPanel contentPane;
	private JLabel date_formate;
	private JLabel day_formate;
	private static  Calendar cal;
	private static int hour,minute,second,am_pm;
	private  static int dayOfWeek,year,month,day;
	private static String months[]= {
	"JANUARY","FEBRUARY","MARCH","APRIL","MAY","JUNE","JULY",
	"AUGUST","SEPTEMBER","OCTOBER","NOVEMBER","DECEMBER"
	};
	private static String days[]= {
		"SUNDAY","MONDAY","TUESDAY","WEDNESDAY",
		"THURSDAY","FRIDAY","SATURDAY"
	};
	private static String str;
/**
	 * Launch the application.
	 */
	public static void main(String[] args) {
		EventQueue.invokeLater(new Runnable() {
			public void run() {
				try {
					my_digital_clock frame = new
my_digital_clock();
					frame.setVisible(true);
				} catch (Exception e) {
					e.printStackTrace();
				}
			}
		});
	}
```

```
	/**
	 * Create the frame.
	 */
	public my_digital_clock() {
		setTitle("Digital Clock");
		setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
		setBounds(100, 100, 480, 282);
		contentPane = new JPanel();
		contentPane.setBackground(Color.WHITE);
		contentPane.setBorder(new EmptyBorder(5, 5, 5, 5));
		setContentPane(contentPane);
		contentPane.setLayout(null);

		JLabel current_time=new JLabel();
		current_time.setForeground(Color.DARK_GRAY);
		current_time.setBackground(Color.WHITE);
		current_time.setFont(new Font("Stencil", Font.PLAIN,
40));
		current_time.setBounds(36, 64, 324, 60);
		contentPane.add(current_time);

		date_formate= new JLabel();
		date_formate.setFont(new Font("Wide Latin", Font.PLAIN,
15));
		date_formate.setForeground(Color.GREEN);
		date_formate.setBackground(Color.WHITE);
		date_formate.setBounds(36, 128, 348, 60);
		contentPane.add(date_formate);

		JLabel day_formate = new JLabel();
		day_formate.setForeground(Color.GREEN);
		day_formate.setFont(new Font("Stencil", Font.PLAIN, 20));
		day_formate.setBackground(Color.BLACK);
		day_formate.setBounds(36, 27, 324, 38);
		contentPane.add(day_formate);


		Timer timer = new Timer(1000, new ActionListener() {
			public void actionPerformed(ActionEvent e) {
				cal = Calendar.getInstance();
				// time
				hour = cal.get(Calendar.HOUR);
				minute = cal.get(Calendar.MINUTE);
				second = cal.get(Calendar.SECOND);
				am_pm = cal.get(Calendar.AM_PM);

				// date
				day = cal.get(Calendar.DAY_OF_MONTH);
```

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                    dayOfWeek = cal.get(Calendar.DAY_OF_WEEK);
                    month = cal.get(Calendar.MONTH);
                    year = cal.get(Calendar.YEAR);

                    if (am_pm == 0) {
                        str = "AM";
                    } else {
                        str = "PM";
                    }
                    current_time.setText(hour + ":" + minute + ":"
+ second + "" + str);

                    date_formate.setText(  day + " " +
months[month] + " " + year);

                    day_formate.setText(days[dayOfWeek - 1]);
                }
            });
            timer.start();
    }
}
```