Assignment

```
//DigitalClock.java

package digital;

public class DigitalClock
{

	private static State State = null;
	private int hour;
	private int min;
	public enum State {Display,SetH,SetM};

	public void initialize()
	{
		this.State=State.Display;
	}

	public int getHour()
	{
		return hour;
	}

	public void setHour(int hour)
	{
		this.hour = hour;
	}

	public int getMin()
	{
		return min;
	}

	public void setMin(int min)
	{
		this.min = min;
	}

	public DigitalClock(int hour, int min)
	{
		super();
		this.hour = hour;
		this.min = min;
	}
```

```
	@Override
	public String toString()
	{
		return "DigitalClock [hour=" + hour + ", min=" + min + "]";
	}


	public void displaytime()
	{
		if(this.State==State.Display)
		{
			System.out.println("The present state is : ");
			System.out.println(this.toString());
		}
		else
		{
			System.out.println("Time cannot be displayed in this
state");
		}
	}

	public void pressA()
	{
		if(this.State==State.Display)
		{
			System.out.println("\nState is changed from Display -> Set
hour");
			this.State=State.SetH;
		}
		else if(this.State==State.SetH)
		{
			System.out.println("\nState is changed from Set hour ->
Set Minute");
			this.State=State.SetM;
		}
		else
		{
			System.out.println("\nCurrent state is Set minutes (no
changes)");

		}
	}

	public void pressB()
	{
		if(this.State==State.Display)
```

```
                {
                        System.out.println("\nCurrent state is Display (no
changes)");

                }
                else if(this.State==State.SetH)
                {
                        System.out.println("\nCurrent state is Set hours and the
time is");
                        //System.out.println(this.toString());
                        hour++;
                        System.out.println(this.toString());
                }
                else
                {
                        System.out.println("\nCurrent state is Set minutes and the
time is");
                        //System.out.println(this.toString());
                        min++;
                        System.out.println(this.toString());

                }
        }

}

//Test.java

package digital;
import java.util.Scanner;
import digital.DigitalClock.*;

public class Test
{
        public static void main(String[] args)
        {
                int a;
                DigitalClock d=new DigitalClock(11,03);
                Scanner in = new Scanner(System.in);
                d.initialize();
                do{

                        System.out.println("\n1.Display time");
                        System.out.println("\n2.Press button A");
                        System.out.println("\n3.Press button B");
                        System.out.println("\n0.Exit");
```

```
                System.out.println("\nEnter your choice ");
                a=in.nextInt();

                switch(a)
                {
                case 1:

                    d.displaytime();
                    break;
                case 2:
                    d.pressA();
                    break;
                case 3:
                    d.pressB();
                    break;
                default:

                    break;
                }
            }while(a!=0);

        }

    }
```

Output:

1.Display time

2.Press button A

3.Press button B

0.Exit

Enter your choice
1
The present state is :
DigitalClock [hour=11, min=3]

1.Display time

2.Press button A

3.Press button B

0.Exit

Enter your choice
2

State is changed from Display -> Set hour

1.Display time

2.Press button A

3.Press button B

0.Exit

Enter your choice
1
Time cannot be displayed in this state

1.Display time

2.Press button A

3.Press button B

0.Exit

Enter your choice
3

Current state is Set hours and the time is
DigitalClock [hour=12, min=3]

1.Display time

2.Press button A

3.Press button B

0.Exit

Enter your choice
1

Time cannot be displayed in this state

1.Display time

2.Press button A

3.Press button B

0.Exit

Enter your choice
2

State is changed from Set hour -> Set Minute

1.Display time

2.Press button A

3.Press button B

0.Exit

Enter your choice
2

Current state is Set minutes (no changes)

1.Display time

2.Press button A

3.Press button B

0.Exit

Enter your choice
1
Time cannot be displayed in this state

1.Display time

2.Press button A

3.Press button B

0.Exit

Enter your choice
3

Current state is Set minutes and the time is
DigitalClock [hour=12, min=4]

1.Display time

2.Press button A

3.Press button B

0.Exit

Enter your choice
1
Time cannot be displayed in this state

1.Display time

2.Press button A

3.Press button B

0.Exit

Enter your choice
0