

Assignment No -: 6

Purpose: Implement a State design pattern.

*****BussinesLogic Package*****

1)Defect.java

```
package ccoew.it.i2.BusinessLogic;
```

```
public class Defect {
```

```
    private Person tester;  
    private Person developer;  
    private Person reviewer;  
    private State state;  
    private Long lines;
```

```
    public void enterDefectToDTS(Defect D) {
```

```
        setTester(new Person("Suresh"));  
        System.out.println("\n A software Tester "+this.getTester()+" enters a defect in defect  
tracking system");  
        System.out.println(" State changed to AVAILABLE");  
    }
```

```
    public Long getLines() {  
        return lines;  
    }
```

```
    public void setLines(Long lines) {  
        this.lines = lines;  
    }
```

```
    public Person getTester() {  
        return tester;  
    }
```

```
    public void setTester(Person tester) {  
        this.tester = tester;  
    }
```

```
    public State getState() {  
        return state;  
    }
```

```
    public void setState(State state) {  
        this.state = state;  
    }
```

```
    public Person getDeveloper() {  
        return developer;  
    }
```

```

    public void setDeveloper(Person developer) {
        this.developer = developer;
    }

    public Person getReviewer() {
        return reviewer;
    }

    public void setReviewer(Person reviewer) {
        this.reviewer = reviewer;
    }
}

```

2) Available.java

```

package ccoew.it.i2.BusinessLogic;

public class Available extends State{

    public void acquireDefect(Defect D){

        System.out.println("\n Current State is AVAILABLE");
        D.setDeveloper(new Person("Ramesh"));

        System.out.println(" Developer "+D.getDeveloper()+ " acquire this defect");

        D.setState(new InProgress());
        System.out.println(" AVAILABLE state changed into INPROGESS state");
    }

}

```

3) InProgress.java

```

package ccoew.it.i2.BusinessLogic;

public class InProgress extends State{

    public void findSolution(Defect D){

        System.out.println("\n Current State is INPROGESS");
        System.out.println(" Defect is Fixed, solution found");
        D.setState(new ReadyForReview());
        System.out.println(" INPROGESS state changed into READYFORREVIEW state");
    }

}

```

4) Person.java

```

package ccoew.it.i2.BusinessLogic;

public class Person {

    private String name;

```

```

public Person(String name) {
    super();
    this.name = name;
}

public String getName() {
    return name;
}

public void setName(String name) {
    this.name = name;
}

@Override
public String toString() {
    return "Person [name=" + name + "]";
}
}

```

5)ReadyForReview.java

```

package ccoew.it.i2.BusinessLogic;

public class ReadyForReview extends State{

    public void reviewDefect(Defect D){

        Long count;
        System.out.println("\n Current State is READYFORREVIEW");
        D.setReviewer(new Person("Mahesh"));
        System.out.println(" Reviewer " +D.getReviewer()+ " reviews the solution of
defect");

        D.setLines(Math.round(50*Math.random()));
        count = D.getLines();
        System.out.println("\n Count is = "+count);

        if (count< 30)
        {
            D.setState(new Available());
            System.out.println(" READYFORREVIEW state changed into AVAILABLE
state");
        }
        else
        {
            D.setState(new Resolved());
            System.out.println(" READYFORREVIEW state changed into RESOLVED
state");
        }
    }
}
}

```

6)Resolved.java

```
package ccoew.it.i2.BusinessLogic;

public class Resolved extends State{

}
```

7)State.java

```
package ccoew.it.i2.BusinessLogic;

public class State {

    public void aquireDefect(Defect defect) {
        System.out.println("the dected is not yet aquired");
    }

    public void findSolution(Defect defect) {
        System.out.println("The solution is not yet found");
    }

    public void reviewDefect(Defect defect) {
        System.out.println("The defect is not yet reviewed");
    }
}
*****Client Package*****
```

TestClient.java

```
package ccoew.it.i2.Client;
import ccoew.it.i2.BusinessLogic.Available;
import ccoew.it.i2.BusinessLogic.Defect;
import ccoew.it.i2.BusinessLogic.InProgress;
import ccoew.it.i2.BusinessLogic.ReadyForReview;

public class TestClient {

    /**
     * @param args
     */
    public static void main(String[] args) {
        // TODO Auto-generated method stub

        Defect Dobj = new Defect();
        Available Aobj = new Available();
        InProgress Iobj = new InProgress();
        ReadyForReview Robj = new ReadyForReview();

        Dobj.enterDefectToDTS(Dobj);
        Aobj.acquireDefect(Dobj);
        Iobj.findSolution(Dobj);
        Robj.reviewDefect(Dobj);
    }
}
```

```
}  
/*
```

Output -:

A software Tester Person [name=Suresh] enters a defect in defect tracking system
State changed to AVAILABLE

Current State is AVAILABLE
Developer Person [name=Ramesh] acquire this defect
AVAILABLE state changed into INPROGRESS state

Current State is INPROGRESS
Defect is Fixed, solution found
INPROGRESS state changed into READYFORREVIEW state

Current State is READYFORREVIEW
Reviewer Person [name=Mahesh] reviews the solution of defect

Count is = 46
READYFORREVIEW state changed into RESOLVED state

```
*/
```