Assignment 3

Purpose: Implementation of a state model from the given description.

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

1)Defect.java

```
package ccoew.it.i2.business;

public class Defect {

	private Person tester;
	private Person developer;
	private Person reviewer;
	private State state;
	private Long Lines;

	public Person getTester() {
		return tester;
	}

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

	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;
	}

	public State getState() {
		return state;
	}

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

	public Long getLines() {
		return Lines;
```

```
	}

	public void setLines(Long lines) {
		Lines = lines;
	}

	public Defect() {
		this.state = null;

	}

	public void enter_defect() {
		this.setTester(new Person("Suresh"));
		System.out.println("\nSoftware Tester "+ this.getTester()+" enters a Defect Tracking
System");
		this.setState(state.Avaiable);
		System.out.println("State changed to AVAILABLE");
	}

	public void acquire_defect() {

		if (getState().equals(state.Avaiable)) {
			System.out.println("\nCurrent State is AVAILABLE");
			this.setDeveloper(new Person("Ramesh"));
			System.out.println("Developer "+this.getDeveloper()+ " called as owner of
the Defect.");
			this.setState(state.InProgress);

			System.out.println("State changed to INPROGRESS");
		} else {
			System.out.println("This behavour is only applicable if the current state of the
defect is AVAILABLE");
		}
	}

	public void find_solution() {

		if (getState().equals(state.InProgress)) {
			System.out.println("\nCurrent State is INPROGRESS");
			System.out.println("Defect is fixed , solution is found ");
			this.setState(state.ReadyForReview);
			System.out.println("State changed to READY FOR REVIEW");
		}
	}

	public void review_defect() {
		Long count;
		if (getState().equals(state.ReadyForReview)) {
			this.setReviewer(new Person("Mahesh"));
			System.out.println("\nCurrent State is READY FOR REVIEW");
			System.out.println( "Reviewer " +this.getReviewer().toString() + " reviews
the solution of defect");
```

```
                        this.setLines(Math.round(50 * Math.random()));
                        count = this.getLines();
                        System.out.println("\nCount is = " + count);

                        if (count < 30) {

                                this.setState(state.Avaiable);
                                System.out
                                                .println("READY FOR REVIEW state changed into
AVAILABLE state");
                        } else {
                                this.setState(state.Resolved);
                                System.out
                                                .println("READY FOR REVIEW state changed into
RESOLVED state");
                        }

                }
        }

}
```

2) Person.java

```
package ccoew.it.i2.business;

public class Person {

        private String name;

        public String getName() {
                return name;
        }

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

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

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

}
```

3)State.java

```
package ccoew.it.i2.business;
public enum State
{

	Avaiable, InProgress, ReadyForReview, Resolved
}
```

**********Client Package**********

Test.java

```
package ccoew.it.i2.client;

import ccoew.it.i2.business.Defect;
import ccoew.it.i2.business.State;

public class Test {

	public static void main(String[] args) {

		Defect defect = new Defect();
		defect.setState(State.InProgress);

		defect.enter_defect();
		defect.acquire_defect();
		defect.find_solution();
		defect.review_defect();
	}

}
/*
```

Output -:

```
Software Tester Person [name=Suresh] enters a Defect Tracking System
State changed to AVAILABLE

Current State is AVAILABLE
Developer Person [name=Ramesh] called as owner of the Defect.
State changed to INPROGRESS

Current State is INPROGRESS
Defect is fixed , solution is found
State changed to READY FOR REVIEW

Current State is READY FOR REVIEW
Reviewer Person [name=Mahesh] reviews the solution of defect

Count is = 49
READY FOR REVIEW state changed into RESOLVED state
*/
```