**Exercise 5:**

**Implementing the Decorator Pattern:**

EmailNotifier.java:

**package** decorator;

**public** **class** EmailNotifier **implements** Notifier {

**public** **void** send(String message)

{

System.***out***.println("Sending Email: "+message);

}

}

Notifier.java:

**package** decorator;

**public** **interface** Notifier {

**void** send(String message);}

NotifierDecorator.java:

**package** decorator;

**public** **abstract** **class** NotifierDecorator **implements** Notifier {

**protected** Notifier notifier;

**public** NotifierDecorator(Notifier notifier)

{

**this**.notifier=notifier;

}

**public** **void** send(String message)

{

notifier.send(message);

}

}

SlackNotifierDecorator.java:

**package** decorator;

**public** **class** SlackNotifierDecorator **extends** NotifierDecorator {

**public** SlackNotifierDecorator(Notifier notifier) {

**super**(notifier);

}

**public** **void** send(String message) {

**super**.send(message);

System.***out***.println("Sending Slack Message: " + message);

}

}

SMSNotifierDecorator.java:

**package** decorator;

**public** **class** SMSNotifierDecorator **extends** NotifierDecorator {

**public** SMSNotifierDecorator(Notifier notifier) {

**super**(notifier);

}

**public** **void** send(String message) {

**super**.send(message);

System.***out***.println("Sending SMS: " + message);

}

}

NotificationDecoratorTest.java:

**package** decorator;

**public** **class** NotificationTest {

**public** **static** **void** main(String[] args)

{

Notifier notifier = **new** EmailNotifier();

notifier =**new** SMSNotifierDecorator(notifier);

notifier =**new** SlackNotifierDecorator(notifier);

notifier.send("Your OTP is 239803");

}

}

**Output:**

