



# Problem 1 :

[ Total Points : 4 ]

```
Interface MessageService{  
  
    public void sendMessage(String message);  
  
}
```

Given above as the MessageService Interface which will be implemented by various message services.

- a) Email Service
- b) SMS Service
- c) Twitter Service

Implement the following using Spring Annotation without any XML file:

1. Create Classes and beans for all the above different types of message services implementing the **MessageService** Interface. [ Points : 0.5 ]

***The method getting implemented in all the classes should just print the message in following manner .***

```
For Ex :  
Email Service ⇒ Invoking sendMessage(String message) ⇒ Print "Email : " + message  
SMS Service ⇒ Invoking sendMessage(String message) ⇒ Print "SMS : " + message  
Twitter Service ⇒ Invoking sendMessage(String message) ⇒ Print "Twitter : " + message
```

2. Create a **MessageProcessor** Interface having a method named **processMessage(String message)** which takes an argument **message** which is of datatype string. [ Points : 0.5 ]
3. Create a class **MessageProcessorImpl** which implements the **MessageProcessor** Interface containing a field of type **MessageService** Interface. [ Points : 2 ]

**Sample Structure**

```
class MessageProcessorImpl implements MessageProcessor{  
    MessageService messageService;  
  
    public void processMessage(String message){  
        // Code Logic  
    }  
}
```

4. Implement the main class, Which will get the bean of **MessageProcessorImpl** and invoke the **sendMessage()** of twitter service. [ Points : 1 ]