



LAB- Using Gateway

In this lab you will be understanding how to use Gateway

In this lab, you will be working on **05-using-gateway-start** project

Step1

In this step you will understand how to use service activator as gateway and also as outbound adapter

- 1) Open 01service-activator-as-gateway.xml and observe the configuration of service activator
- 2) Open OrderProcessServiceImpl.java and observe that the processOrder method is returning string
- 3) Run ServiceActivatorDemo and observe that there is an exception

Can you see the exception and identify the problem?

Yes!! We didnt configure out-put channel

Now configure output-channel with name "loggingchannel" for service activator

Also, configure a direct channel with name " loggingchannel " .

Configure a logging channel adapter for loggingchannel as below :

```
<int:channel id="loggingchannel"/>

<int:logging-channel-adapter channel="loggingchannel" level="INFO" />
<int:channel id="orderschannel" />

<int:service-activator input-channel="orderschannel"
    output-channel="loggingchannel"
    ref="orderProcessServiceImpl"
    method="processOrder" />
```

- 3) We dont want to configure output-channel to service activator.

So, as processOrder method has a return value, where will the returnValue be placed?

We need to configure replyChannel in the incoming message.



Modify the message creation in ServiceActivatorDemo.java as show below and run it.

```
Message<Order> orderMessage=  
    MessageBuilder.withPayload(order).  
        setReplyChannelName("loggingchannel")  
        .build();
```

You should observe that the reply is placed in the reply channel specified in the message header

Step2

In this step you will understand how to use configure and use a gateway proxy

1) Open GateWayProxyDemo.java and observe that we are using spring integration api in code to create a message.

We Dont want to use spring integration api in code.

So, We have to create an Interface with a method which takes the desired payload type.

You have been provided with that interface already. Just open OrderProcessService and observe that it has a method which takes Order and return String.

Now open 02using-gateway-proxy.xml configure a gateway proxy as shown below in

```
<int:gateway id="ops"  
    service-interface="com.way2learnonline.service.OrderProcessService"  
    default-request-channel="orderschannel"/>
```

2) Open GateWayProxyDemo.java and replace the code which is creating and sending message with the below code :

```
OrderProcessService  
orderProcessService=context.getBean("ops",OrderProcessService.class);  
  
    String orderId=orderProcessService.po(order);  
  
    System.out.println("Got Order Id : "+orderId);
```

3) By default, gateway proxy will use a temporary reply channel
Try to configure a default reply channel in xml and run the GateWayProxyDemo.java.

4) Modify the interface so that we will get an Asynchronous Gateway

Congratulations !! You know how to use Gateway