

Assignment No 6

To develop any distributed application using Messaging System in Publisher-Subscriber paradigm.

```
***** Subscriber.java*****

package pubsub;

import java.io.IOException;
import javax.jms.*;
import org.apache.activemq.ActiveMQConnection;
import org.apache.activemq.ActiveMQConnectionFactory;

public class Subscriber {
    // URL of the JMS server
    private static String url = ActiveMQConnection.DEFAULT_BROKER_URL;

    // Name of the topic from which we will receive messages from = " CL9"
    public static void main(String[] args) throws JMSEException {
        // Getting JMS connection from the server
        ConnectionFactory connectionFactory = new
ActiveMQConnectionFactory(url);
        Connection connection = connectionFactory.createConnection();
        connection.start();
        Session session = connection.createSession(false,
Session.AUTO_ACKNOWLEDGE);
        Topic topic = session.createTopic("CL9");
        MessageConsumer consumer = session.createConsumer(topic);
        MessageListener listner = new MessageListener() {
            public void onMessage(Message message) {
                try {
                    if (message instanceof TextMessage) {
                        TextMessage textMessage =
(TextMessage) message;
                        System.out.println("Received
message" + textMessage.getText() + "");
                    }
                } catch (JMSEException e) {
                    System.out.println("Caught:" + e);
                    e.printStackTrace();
                }
            }
        };
        consumer.setMessageListener(listner);
        try {
            System.in.read();
        } catch (IOException e) {
            e.printStackTrace();
        }
        connection.close();
    }
}
```

*****Publisher*****

```
package pubsub;

import javax.jms.*;
import org.apache.activemq.ActiveMQConnection;
import org.apache.activemq.ActiveMQConnectionFactory;

public class Publisher {
    private static String url = ActiveMQConnection.DEFAULT_BROKER_URL;

    public static void main(String[] args) throws JMSEException {
        ConnectionFactory connectionFactory = new
ActiveMQConnectionFactory(url);
        Connection connection = connectionFactory.createConnection();
        connection.start();
        // JMS messages are sent and received using a Session. We will
        // create here a non-transactional session object. If you want
        // to use transactions you should set the first parameter to 'true'
        Session session = connection.createSession(false,
Session.AUTO_ACKNOWLEDGE);
        Topic topic = session.createTopic("CL9");
        MessageProducer producer = session.createProducer(topic);
        // We will send a small text message saying 'Hello'
        TextMessage message = session.createTextMessage();
        message.setText("This is a new message from publisher");
        // Here we are sending the message!
        producer.send(message);
        System.out.println("Sent message '" + message.getText() +
        "'");
        connection.close();
    }
}
```

Output in windows

Terminal:

Microsoft Windows [Version 10.0.18363.1440]

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C:\Users\WIN 10\Desktop\pubsub\apache-activemq-5.15.8-bin\apache-activemq-5.15.8\bin>activemq.jar start

C:\Users\WIN 10\Desktop\pubsub\apache-activemq-5.15.8-bin\apache-activemq-5.15.8\bin>

IDE:

1.Run Subscriber:

INFO | Successfully connected to tcp://localhost:61616

2.Run Publisher:

INFO | Successfully connected to tcp://localhost:61616

Received messageThis is a new message from publisher'

Output in Ubuntu

Terminal:

Microsoft Windows [Version 10.0.18363.1440]

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C:\Users\WIN 10\Desktop\pubsub\apache-activemq-5.15.8-bin\apache-activemq-5.15.8\bin>sudo sh activemq start