



The screenshot shows an IDE window for a project named 'dat110-project2-mom-startcode-main'. The file 'BrokerServer.java' is open, showing the following code:

```
1 package no.hvl.dat110.broker;
2
3 import no.hvl.dat110.common.Logger;
4
5 public class BrokerServer extends Thread {
6
7     private static int BROKER_DEFAULTPORT = 8080; // 1 usage
8
9     public static void main(String[] args) {
10
11         int port = BROKER_DEFAULTPORT;
12
13         if (args != null) {
```

The Run tab shows the following output:

```
Broker server : 8080
Messaging server started on port 8080
Dispatcher running
Broker running
Broker accept [0]
.....Messaging server: Accepted connection from /127.0.0.1
!0
?
Message [type=CONNECT, user=display]
onConnect:Message [type=CONNECT, user=display]
Client session added for user: display
Broker accept [0]
.?
CreateTopicMsg [type=CREATETOPIC, user=display, topic=temperature]
onCreateTopic:CreateTopicMsg [type=CREATETOPIC, user=display, topic=temperature]
onCreateTopic: CreateTopicMsg [type=CREATETOPIC, user=display, topic=temperature]
```

The Performance tab shows a CPU usage graph and a Heap Memory graph.

The screenshot shows the same IDE window as the previous one, but with a chat application window open. The chat application window has a 'Configure' tab with the following fields:

- Disconnect: me
- Create Topic: mom
- Subscribe: dad
- Publish: dong

The Messages tab shows the following messages:

```
onPublish:PublishMsg [type=PUBLISH, user=sensor, topic=temperature, message=""]
Message published to user display on topic: temperature
.?
Message [type=DISCONNECT, user=sensor]
onDisconnect:Message [type=DISCONNECT, user=sensor]
Client session removed for user: sensor
.....?
CreateTopicMsg [type=CREATETOPIC, user=me, topic=mom]
onCreateTopic:CreateTopicMsg [type=CREATETOPIC, user=me, topic=mom]
onCreateTopic: CreateTopicMsg [type=CREATETOPIC, user=me, topic=mom]
Topic created: mom
.....?
SubscribeMsg [type=SUBSCRIBE, user=me, topic=dad]
onSubscribe:SubscribeMsg [type=SUBSCRIBE, user=me, topic=dad]
onSubscribe: SubscribeMsg [type=SUBSCRIBE, user=me, topic=dad]
...?
DeleteTopicMsg [type=DELETETOPIC, user=me, topic=mom]
onDeleteTopic:DeleteTopicMsg [type=DELETETOPIC, user=me, topic=mom]
Topic deleted: mom
.?
UnsubscribeMsg [type=UNSUBSCRIBE, user=me, topic=dad]
onUnsubscribe:UnsubscribeMsg [type=UNSUBSCRIBE, user=me, topic=dad]
onUnsubscribe: UnsubscribeMsg [type=UNSUBSCRIBE, user=me, topic=dad]
.....?
PublishMsg [type=PUBLISH, user=me, topic=dong, message=hola amigo]
onPublish:PublishMsg [type=PUBLISH, user=me, topic=dong, message=hola amigo]
.....
Process finished with exit code 130
```