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package io.scalecube.examples;

import io.scalecube.cluster.Cluster;
import io.scalecube.cluster.Member;
import io.scalecube.transport.Message;
import java.util.Collections;
import java.util.Optional;
import java.util.concurrent.TimeUnit;

/**
 * Using Cluster metadata: metadata is set of custom parameters that may be used by
 * application
 * developers to attach additional business information and identifications to
 * cluster members.
 *
 * <p>in this example we see how to attach logical name to a cluster member we nick
 * name Joe
 *
 * @author ronen_h, Anton Kharenko
 */
public class ClusterMetadataExample {

    /** Main method. */
    public static void main(String[] args) throws Exception {
        // Start seed cluster member Alice
        Cluster alice = Cluster.joinAwait();

        // Join Joe to cluster with metadata
        Cluster joe = Cluster.joinAwait(Collections.singletonMap("name", "Joe"),
alice.address());

        // Subscribe Joe to listen for incoming messages and print them to system out
        joe.listen()
            .map(Message::data)
            .subscribe(
                o -> System.err.println("joe.listen(): " + o),
                ex -> System.err.println("joe.listen(): " + ex));

        // Scan the list of members in the cluster and find Joe there
        Optional<Member> joeMemberOptional =
            alice
                .otherMembers()
                .stream()
                .filter(member -> "Joe".equals(alice.metadata(member).get("name")))
                .findAny();

        System.err.println("### joeMemberOptional: " + joeMemberOptional);

        // Send hello to Joe
        joeMemberOptional.ifPresent(
            member ->
                alice
                    .send(member, Message.withData("Hello
Joe")).sender(alice.address()).build())
                .subscribe(
                    null,
                    ex -> {
                        // no-op
                    }));
    }
}

```

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        TimeUnit.SECONDS.sleep(3);  
    }  
}
```