

Getting Started with Hazelcast

Other Data Structures



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Overview

Set

List

Queues

Topics

MultiMap

Locks

```
Set<String> countries = hazelcastInstance.getSet("countries");
```

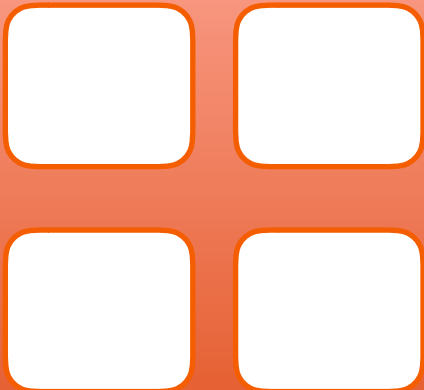
```
com.hazelcast.core.ISet
```

Retrieving a Set

Distributed Set Data

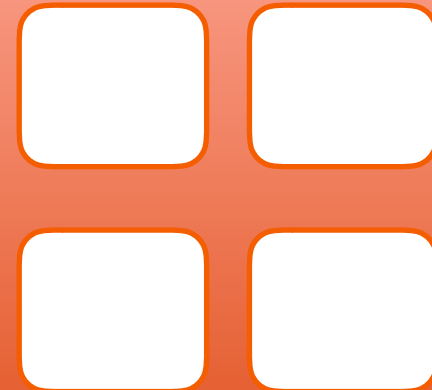
Cluster Member 1
(Primary)

Set



Cluster Member 2
(Backup)

Set



```
Set<String> countries = hazelcastInstance.getSet("countries");  
  
Iterator<String> i = countries.iterator();  
  
while(i.hasNext()) {  
    String country = i.next();  
  
}
```

Set Iterators

When the iterator() is called all the data is copied locally. There is no batching.

```
List<String> currencies = hazelcastInstance.getList("currencies");
```

```
com.hazelcast.core.IList
```

Retrieving a List

```
import com.hazelcast.core.IQueue;  
  
IQueue<String> emails = hazelcastInstance.getQueue("emails");
```

Retrieving a Reference to a Queue

```
IQueue<String> emails = hazelcastInstance.getQueue("emails");  
  
String email = emails.poll();  
  
if (email != null) System.out.println(email);
```

Queue Poll Method (Non Blocking)


```
IQueue<String> emails = hazelcastInstance.getQueue("emails");  
  
// Blocks thread for 1 second  
  
String email = emails.poll(1L, TimeUnit.SECONDS);  
  
if (email != null) System.out.println(email);
```

Queue Poll Method (Blocking)

```
IQueue<String> emails = hazelcastInstance.getQueue("emails");  
  
// Blocks thread until an item is available on the queue  
  
String email = emails.take();  
  
System.out.println(email);
```

Queue Take Method (Blocking)

Topics



MultiMaps

Corporate
Account: 1

Grant

Warren

Corporate
Account: 2

Jane

Simon

```
ILock lock = hazelcastInstance.lock( "MyLockName" );  
lock.lock( );  
try {  
    //Do Something here  
} finally {  
    lock.unlock( );  
}
```

Lock

com.hazelcast.core.ILock extends java.util.concurrent.locks.Lock

Other Data Structures

- AtomicLong
- Semaphore
- AtomicReference
- CountDownLatch
- IdGenerator
- Write your own

Module Review

- Sets & Lists
- Queues & Topics
- MultiMaps
- Locks

Next...

Listening for events within the Hazelcast cluster