Chapter 1. What's New?

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Neo4j Support

NoSQLUnit supports *Neo4j* by using next classes:

Table 1.1. Lifecycle Management Rules

Embedded	`com.lordofthejars.nosqlunit.neo4j.EmbeddedNeo4j`
Managed Wrapping	`com.lordofthejars.nosqlunit.neo4j.ManagedWrappi`
Managed	`com.lordofthejars.nosqlunit.neo4j.ManagedNeoSer`

Table 1.2. Manager Rule

NoSQLUnit Management	`com.lordofthejars.nosqlunit.neo4j.Neo4jRule`

Default dataset file format in *Neo4j* module is GraphML [http://graphml.graphdrawing.org/] . *GraphML* is a comprehensive and easy-to-use file format for graphs.

Example 1.1. Example of GraphML Dataset

```
<?xml version="1.0" encoding="UTF-8"?>
<graphml xmlns="http://graphml.graphdrawing.org/xmlns">
    <key id="attr1" for="edge" attr.name="attr1" attr.type="float"/>
    <key id="attr2" for="node" attr.name="attr2" attr.type="string"/>
    <graph id="G" edgedefault="directed">
        <node id="1">
            <data key="attr2">value1</data>
        </node>
        <node id="2">
            <data key="attr2">value2</data>
        </node>
        <edge id="7" source="1" target="2" label="label1">
            <data key="attr1">float</data>
        </edge>
    </graph>
</graphml>
```

A simple example of using embedded *Neo4j* lifecycle management could be:

Example 1.2. Embedded Neo4j

```
import static com.lordofthejars.nosqlunit.neo4j.EmbeddedNeo4j.EmbeddedNeo4jRuleBui

@ClassRule
public static EmbeddedNeo4j embeddedNeo4j = newEmbeddedNeo4jRule().build();
```

And for configuring *Neo4j* connection:

Example 1.3. Neo4j with embedded configuration

```
import static com.lordofthejars.nosqlunit.neo4j.EmbeddedNeoServerConfigurationBuil

@Rule
public Neo4jRule neo4jRule = new Neo4jRule(newEmbeddedNeoServerConfiguration().bui
```

Simultaneous engines

Sometimes applications will contain more than one *NoSQL* engine, for example some parts of your model will be expressed better as a graph (Neo4J for example), but other parts will be more natural in a column way (for example using Cassandra). **NoSQLUnit** supports this kind of scenarios by providing in integration tests a way to not load all datasets into one system, but choosing which datasets are stored in each backend.

For declaring more than one engine, you must give a name to each database *Rule* using `connectionIdentifier()` method in configuration instance.

Example 1.4. Given a name database rule

```
@Rule
public MongoDbRule remoteMongoDbRule1 = new MongoDbRule(mongoDb()
                                        .databaseName("test").connectionIdentifier
```

And also you need to provide an identified dataset for each engine, by using `withSelectiveLocations` attribute of `@UsingDataSet` annotation. You must set up the pair "named connection" / datasets.

Example 1.5. Selective dataset example

```
@UsingDataSet(withSelectiveLocations =
    { @Selective(identifier = "one", locations = "test3") },
   loadStrategy = LoadStrategyEnum.REFRESH)
```

In example we are refreshing database declared on previous example with data located at *test3* file.

Also works in expectations annotation:

Example 1.6. Selective expectation example

```
@ShouldMatchDataSet(withSelectiveMatcher =
    { @SelectiveMatcher(identifier = "one", location = "test3")
    })
```

For more information see chapter about advanced features .

Support for JSR-330

NoSQLUnit supports two annotations of JSR-330 aka Dependency Injection for Java. Concretely `@Inject` and `@Named` annotations.

During test execution you may need to access underlying class used to load and assert data to execute extra operations to backend. **NoSQLUnit** will inspect `@Inject` annotations of test fields, and try to set own driver to attribute. For example in case of MongoDb , `com.mongodb.Mongo` instance will be injected.

Example 1.7. Injection example

```
@Rule
public MongoDbRule remoteMongoDbRule1 = new MongoDbRule(mongoDb()
      .databaseName("test").build() ,this);

@Inject
private Mongo mongo;
```

Warning

Note that in example we are setting `this` as second parameter to the Rule.

But if you are using more than one engine at same time (see chapter) you need a way to distinguish each connection. For fixing this problem, you must use `@Named` annotation by putting the identifier given in configuration instance. For example:

Example 1.8. Named injection example

```
@Rule
public MongoDbRule remoteMongoDbRule1 = new MongoDbRule(mongoDb()
     .databaseName("test").connectionIdentifier("one").build() ,this);

@Rule
public MongoDbRule remoteMongoDbRule2 = new MongoDbRule(mongoDb()
     .databaseName("test2").connectionIdentifier("two").build() ,this);

@Named("one")
@Inject
private Mongo mongo1;

@Named("two")
@Inject
private Mongo mongo2;
```

For more information see advanced features chapter.