链滴

# 分布式 | springboot+sharding-jdbc+HikariCP+mybatis 做读写分离

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来源网站：链滴

# javaDEMO

本网站记录了最全的各种JavaDEMO ,保证下载,复制就是可用的,包括基础的, 集合的, spring的, Mybats的等等各种,助力你从菜鸟到大牛,记得收藏哦~~

https://www.javastudy.cloud

# sharding-jdbc简介

现已更名为: sharding-sphere,官方网址如下

https://shardingsphere.apache.org/document/current/cn/overview/

简单来说,最主要的可以做以下事情:

1.数据库读写分离

2.数据库分库分表

3.分布式事务

在今天的DEMO中, 我们一起来用shard-sphere来做数据库的读写分离

主要需要以下几步:

1.准备主从的数据库,

参考文章:

https://www.javastudy.cloud/articles/2019/11/14/1573693221155.html

2.在springboot工程中,引入相应的mybatis和shard-spere的依赖

3.编写测试类

# springboot+sharding-jdbc+HikariCP+mybatis做读写分离

# 添加依赖

```
implementation 'org.mybatis.spring.boot:mybatis-spring-boot-starter:2.1.1'
runtimeOnly 'mysql:mysql-connector-java'
// 这里多了一个shardingsphere的依赖
compile group: 'org.apache.shardingsphere', name: 'sharding-jdbc-spring-boot-starter', versi
n: '4.0.0-RC3'
```

# 添加springboot的配置

```
# 这里我们有一主一从
spring.shardingsphere.datasource.names=master,slave0

# 主库的配置
spring.shardingsphere.datasource.master.type=com.zaxxer.hikari.HikariDataSource
spring.shardingsphere.datasource.master.driver-class-name=com.mysql.cj.jdbc.Driver
spring.shardingsphere.datasource.master.jdbcUrl=jdbc:mysql://localhost:33309/tools
spring.shardingsphere.datasource.master.username=root
spring.shardingsphere.datasource.master.password=javastudy

# 从库的配置
spring.shardingsphere.datasource.slave0.type=com.zaxxer.hikari.HikariDataSource
spring.shardingsphere.datasource.slave0.driver-class-name=com.mysql.cj.jdbc.Driver
spring.shardingsphere.datasource.slave0.jdbcUrl=jdbc:mysql://localhost:33308/tools
spring.shardingsphere.datasource.slave0.username=root
spring.shardingsphere.datasource.slave0.password=javastudy

# sharding-jdbc本身的一些配置
spring.shardingsphere.masterslave.name=ms
spring.shardingsphere.masterslave.master-data-source-name=master
spring.shardingsphere.masterslave.slave-data-source-names=slave0

spring.shardingsphere.props.sql.show=true
```

这里要注意, 主库和从库配置的第一行, datasource.master.type 这里, 要写HikariDataSource, 这样可以使用HikariCP了

然后平常hikariCP和Mybatis的配置照常配置就可以了, 但是不在需要spring.datasource.url,spring.daasource.username这些配置了

# 编写测试类

mybatis的mapper还是按原来的写法写, 然后我们使用autowire进行注入

```
@Autowired
 private ArticleMapper articleMapper;

 @Test
 public void testDataSource(){

    List<ArticleDO> articleDOS = articleMapper.listArticles(new ArticleQC());
    System.out.println(articleDOS);
```

```
}
```

运行单元测试,可通过日志看出使用了hikariCP+sharding-jdbc

```
)-01-04 20:10:19.956  INFO 61696 --- [           main] com.zaxxer.hikari.HikariDataSource       : HikariPool-1 - Starting...
)-01-04 20:10:23.572  INFO 61696 --- [           main] com.zaxxer.hikari.HikariDataSource       : HikariPool-1 - Start completed.
)-01-04 20:10:23.595  INFO 61696 --- [           main] com.zaxxer.hikari.HikariDataSource       : HikariPool-2 - Starting...
)-01-04 20:10:23.626  INFO 61696 --- [           main] com.zaxxer.hikari.HikariDataSource       : HikariPool-2 - Start completed.
)-01-04 20:10:23.811  INFO 61696 --- [           main] o.a.s.core.util.ConfigurationLogger      : MasterSlaveRuleConfiguration
:erDataSourceName: master
:: ms
veDataSourceNames:
lave0

)-01-04 20:10:23.813  INFO 61696 --- [           main] o.a.s.core.util.ConfigurationLogger      : Properties
.show: 'true'

)-01-04 20:10:26.480  INFO 61696 --- [           main] com.platform.tools.mybatis.MybatisTests  : Started MybatisTests in 9.841 se
)-01-04 20:10:27.194 DEBUG 61696 --- [           main] c.p.t.dao.ArticleMapper.listArticles     : ==>  Preparing: SELECT id, code,
)-01-04 20:10:28.466  INFO 61696 --- [           main] ShardingSphere-SQL                       : Rule Type: master-slave
)-01-04 20:10:28.466  INFO 61696 --- [           main] ShardingSphere-SQL                       : SQL: SELECT  id, code, author_id
1 article ::: DataSources: slave0
)-01-04 20:10:28.498 DEBUG 61696 --- [           main] c.p.t.dao.ArticleMapper.listArticles     : ==> Parameters:
)-01-04 20:10:28.531 DEBUG 61696 --- [           main] c.p.t.dao.ArticleMapper.listArticles     : <==      Total: 1
1.platform.tools.models.dos.ArticleDO@5b5d6f9c]
)-01-04 20:10:30.437  INFO 61696 --- [extShutdownHook] com.zaxxer.hikari.HikariDataSource       : HikariPool-1 - Shutdown initiate
)-01-04 20:10:30.448  INFO 61696 --- [extShutdownHook] com.zaxxer.hikari.HikariDataSource       : HikariPool-1 - Shutdown complete
)-01-04 20:10:30.448  INFO 61696 --- [extShutdownHook] com.zaxxer.hikari.HikariDataSource       : HikariPool-2 - Shutdown initiate
)-01-04 20:10:30.457  INFO 61696 --- [extShutdownHook] com.zaxxer.hikari.HikariDataSource       : HikariPool-2 - Shutdown complete
```

mybatis的日志

# DEMO总评

读写分离是数库库量级上来后首选优化方案,就代码使用层面来说,没有大家想的那么难,建议在项目中践起来! 大家在实践过程中遇到什么问题,欢迎随时交流