http://blog.csdn.net/donggang1992/article/details/51064962

上一篇总结了Redis sentinel（哨兵方案）的配置流程，本篇就redis整合ssm框架进行说明。目前，大多数公司用redis主要做缓存用，对于那些不常变动的数据来说，我们将其缓存在redis中，可以大大减少**数据库**的压力。

一、Spring集成redis

1.在resource目录下创建spring-redis.xml文件，内容如下：

```
<?xml version="1.0" encoding="UTF-8"?>
<beans xmlns="http://www.springframework.org/schema/beans"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:context="http://www.springframework.org/schema/context"
    xmlns:p="http://www.springframework.org/schema/p"
    xsi:schemaLocation="http://www.springframework.org/schema/aop
http://www.springframework.org/schema/aop/spring-aop-4.1.xsd
        http://www.springframework.org/schema/beans
http://www.springframework.org/schema/beans/spring-beans-4.1.xsd
        http://www.springframework.org/schema/context
http://www.springframework.org/schema/context/spring-context-4.1.xsd">

    <bean id="jedisPoolConfig" class="redis.clients.jedis.JedisPoolConfig">
        <property name="maxIdle" value="2000" />
        <property name="maxTotal" value="20000" />
        <property name="minEvictableIdleTimeMillis" value="300000">
</property>
        <property name="numTestsPerEvictionRun" value="3"></property>
        <property name="timeBetweenEvictionRunsMillis" value="60000">
</property>
        <property name="maxWaitMillis" value="20000" />
        <property name="testOnBorrow" value="false" />
    </bean>

    <!-- redis集群配置 哨兵模式 -->
    <bean id="sentinelConfig"

class="org.springframework.data.redis.connection.RedisSentinelConfiguration
">
```

```
        <property name="master">
            <bean
class="org.springframework.data.redis.connection.RedisNode">
                <!--这个值要和Sentinel中指定的master的值一致，不然启动时找不到
Sentinel会报错的-->
                <property name="name" value="mymaster"></property>
            </bean>
        </property>
        <!--记住了,这里是指定Sentinel的IP和端口，不是Master和Slave的-->
        <property name="sentinels">
            <set>
                <bean
class="org.springframework.data.redis.connection.RedisNode">
                    <constructor-arg name="host" value="192.168.12.90" />
                    <constructor-arg name="port" value="7505" />
                </bean>
                <bean
class="org.springframework.data.redis.connection.RedisNode">
                    <constructor-arg name="host" value="192.168.12.90" />
                    <constructor-arg name="port" value="7506" />
                </bean>
            </set>
        </property>
    </bean>
    <!-- 在此将sentinel配置集成到redis连接池中 -->
    <bean id="jedisConnectionFactory"
class="org.springframework.data.redis.connection.jedis.JedisConnectionFacto
ry">
        <property name="timeout" value="20000"></property>
        <property name="poolConfig" ref="jedisPoolConfig"></property>
        <constructor-arg name="sentinelConfig" ref="sentinelConfig">
</constructor-arg>
    </bean>

    <bean id="stringRedisTemplate"
class="org.springframework.data.redis.core.StringRedisTemplate">
        <property name="connectionFactory" ref="jedisConnectionFactory" />
    </bean>
```

```
</beans>
```

在上述配置中，我们用jedis 池化管理方案，将sentinel纳入配置中去，这样就不用代码中用JedisSentinelPool了，直接用JedisPool就ok了。别忘了，将此文件加入web.xml中：

```
<context-param>
        <param-name>contextConfigLocation</param-name>
        <param-value>classpath:spring-mybatis.xml,classpath:spring-redis.xml</param-value>
</context-param>
```

2.测试

新建测试类，内容如下：

```
package com.dg;

import java.util.Collection;
import java.util.List;
import java.util.Map;
import java.util.Set;

import javax.annotation.Resource;

import org.junit.Test;
import org.junit.runner.RunWith;
import org.springframework.data.redis.connection.RedisSentinelConnection;
import org.springframework.data.redis.connection.RedisServer;
import org.springframework.data.redis.core.StringRedisTemplate;
import org.springframework.test.context.ContextConfiguration;
import org.springframework.test.context.junit4.SpringJUnit4ClassRunner;

import com.alibaba.fastjson.JSONObject;
import com.dg.bean.User;

@RunWith(SpringJUnit4ClassRunner.class)
@ContextConfiguration(locations = { "classpath:spring-redis.xml" })
public class SpringRedis {

    @Resource(name = "stringRedisTemplate")
```

```
    private StringRedisTemplate stringRedisTemplate;

    /**
     * redis 读写测试
     */
    @Test
    public void testSpringRedis() {

        try {
            // ApplicationContext context = new
            // ClassPathXmlApplicationContext("spring-redis.xml");
            // StringRedisTemplate stringRedisTemplate =
            // context.getBean("stringRedisTemplate",
            // StringRedisTemplate.class);
            // String读写
            stringRedisTemplate.delete("myStr");
            stringRedisTemplate.opsForValue().set("myStr",
"http://yjmyzz.cnblogs.com/");
            System.out.println(stringRedisTemplate.opsForValue().get("myStr"));
            System.out.println("---------------");

            // List读写
            stringRedisTemplate.delete("myList");
            stringRedisTemplate.opsForList().rightPush("myList", "A");
            stringRedisTemplate.opsForList().rightPush("myList", "B");
            stringRedisTemplate.opsForList().leftPush("myList", "0");
            List<String> listCache =
stringRedisTemplate.opsForList().range("myList", 0, -1);
            for (String s : listCache) {
                System.out.println(s);
            }
            System.out.println("---------------");

            // Set读写
            stringRedisTemplate.delete("mySet");
            stringRedisTemplate.opsForSet().add("mySet", "A");
            stringRedisTemplate.opsForSet().add("mySet", "B");
            stringRedisTemplate.opsForSet().add("mySet", "C");
            Set<String> setCache =
```

```
stringRedisTemplate.opsForSet().members("mySet");
            for (String s : setCache) {
                System.out.println(s);
            }
            System.out.println("---------------");

            // Hash读写
            stringRedisTemplate.delete("myHash");
            stringRedisTemplate.opsForHash().put("myHash", "PEK", "北京");
            stringRedisTemplate.opsForHash().put("myHash", "SHA", "上海虹桥");
            stringRedisTemplate.opsForHash().put("myHash", "PVG", "浦东");
            Map<Object, Object> hashCache =
stringRedisTemplate.opsForHash().entries("myHash");
            for (Map.Entry<Object, Object> entry : hashCache.entrySet()) {
                System.out.println(entry.getKey() + " - " + entry.getValue());
            }
            System.out.println("---------------");
        } catch (Exception e) {
            e.printStackTrace();
        }
    }

    /**
     * redis 得到所有的master and slave 信息
     */
    @Test
    public void testGetAllMasterAndSlave() {

        RedisSentinelConnection conn =
stringRedisTemplate.getConnectionFactory().getSentinelConnection();

        for (RedisServer master : conn.masters()) {
            System.out.println("master => " + master);// 打印master信息
            Collection<RedisServer> slaves = conn.slaves(master);
            // 打印该master下的所有slave信息
            for (RedisServer slave : slaves) {
                System.out.println("slaves of " + master + " => " + slave);
            }
            System.out.println("---------------");
```

```
        }
    }

    /*
     * 测试redis 缓存object 和 list 类型数据(方案：用json将object和list序列化)
     */
    @Test
    public void testRedisCacheObjectAndList() {

        User user1 = new User("zhangsan", "123456", "222888@qq.com",
"15824812342", 'M', 22);
//      // fastJson 序列化
//      String jsonStr = JSONObject.toJSONString(user1);
//      System.out.println(">>>>>>>>>>>>>>>>>>" + jsonStr);
//      // fastJson 反序列化
//      user1 = JSONObject.parseObject(jsonStr, User.class);
//      System.out.println(">>>>>>>>>>>>>>>>>>>>" + user1);

        stringRedisTemplate.delete("user1");
        // 将object 用 json 序列化后保存redis
        stringRedisTemplate.opsForValue().set("user1",
JSONObject.toJSONString(user1));

        user1 =
JSONObject.parseObject(stringRedisTemplate.opsForValue().get("user1"),
User.class);
        System.out.println("----------------------" + user1);
    }
}
    /**测试redis客户端*/
    @Test
    public void testRedis(){

        Jedis jedis = new Jedis("192.168.12.90", 6379);

        jedis.set("name", "mrdg");
        jedis.set("age", "24");

        System.out.println("name:"+jedis.get("name"));
```

```
        System.out.println("age:"+jedis.get("age"));
        System.out.println("tel:"+jedis.get("Tel"));
        System.out.println("no:"+jedis.get("No"));
    }
    /**测试redis集群方案*/
    @Test
    public void testCluster(){

        Set<HostAndPort> jedisClusterNodes = new HashSet<HostAndPort>();
        //Jedis Cluster will attempt to discover cluster nodes automatically
        jedisClusterNodes.add(new HostAndPort("192.168.12.90", 7001));
        JedisCluster jc = new JedisCluster(jedisClusterNodes);
        jc.set("foo", "bar");
        String value = jc.get("foo");

        System.out.println(value);
        try {
            jc.close();
        } catch (Exception e) {
            e.printStackTrace();
        }
    }
```

上面的测试类，cluster方案集群环境为(详见 http://blog.csdn.net/donggang1992/article/details/50981954):

```
[root@localhost ~]# ps aux | grep redis
root      16388  0.0  0.0 112644   952 tty1     R+   10:50   0:00 grep --color=auto redis
root      26208  0.1  0.1 132792  3728 ?        Ssl  Mar27  13:52 redis-server 192.168.12.90:7000 [cluster]
root      26220  0.1  0.1 132856  2716 ?        Ssl  Mar27  13:43 redis-server 192.168.12.90:7001 [cluster]
root      26224  0.1  0.1 132832  2688 ?        Ssl  Mar27  13:43 redis-server 192.168.12.90:7002 [cluster]
root      26228  0.1  0.1 131744  2608 ?        Ssl  Mar27  14:23 redis-server 192.168.12.90:7003 [cluster]
root      26232  0.1  0.1 131748  2612 ?        Ssl  Mar27  14:25 redis-server 192.168.12.90:7004 [cluster]
root      26236  0.1  0.1 131748  2624 ?        Ssl  Mar27  14:29 redis-server 192.168.12.90:7005 [cluster]
```

sentinel方案环境为（详见 http://blog.csdn.net/donggang1992/article/details/50981341 ）：

```
root      39204  0.4  0.1 131388  2520 ?        Rl   Mar28  52:16 redis-sentinel *:7505 [sentinel]
root      39212  0.4  0.1 131404  2476 ?        Sl   Mar28  52:21 redis-sentinel *:7506 [sentinel]
```

二、mybatis集成redis进行缓存配置

1.mybatis开启缓存支持

在spring-mabatis.xml中添加下列内容：

```
<!-- spring和MyBatis完美整合，不需要mybatis的配置映射文件 -->
```

```
    <bean id="sqlSessionFactory"
class="org.mybatis.spring.SqlSessionFactoryBean">
        <property name="dataSource" ref="dataSource" />
        <!-- 自动扫描mapping.xml文件 -->
        <property name="mapperLocations"
value="classpath:com/dg/mapping/*.xml"></property>
        <!-- 开启缓存支持 -->
        <property name="configurationProperties">
            <props>
                <prop key="cacheEnabled">true</prop>
                <!-- 查询时，关闭关联对象即时加载以提高性能 -->
                <prop key="lazyLoadingEnabled">false</prop>
                <!-- 设置关联对象加载的形态，此处为按需加载字段(加载字段由SQL指
定)，不会加载关联表的所有字段，以提高性能 -->
                <prop key="aggressiveLazyLoading">true</prop>
                <!-- 对于未知的SQL查询，允许返回不同的结果集以达到通用的效果 -->
                <prop key="multipleResultSetsEnabled">true</prop>
                <!-- 允许使用列标签代替列名 -->
                <prop key="useColumnLabel">true</prop>
                <!-- 允许使用自定义的主键值(比如由程序生成的UUID 32位编码作为键
值)，数据表的PK生成策略将被覆盖 -->
                <prop key="useGeneratedKeys">true</prop>
                <!-- 给予被嵌套的resultMap以字段-属性的映射支持 -->
                <prop key="autoMappingBehavior">FULL</prop>
                <!-- 对于批量更新操作缓存SQL以提高性能 -->
                <prop key="defaultExecutorType">BATCH</prop>
                <!-- 数据库超过25000秒仍未响应则超时 -->
                <prop key="defaultStatementTimeout">25000</prop>
            </props>
        </property>
    </bean>
```

2.新建cache包，并创建RedisCache类

RedisCache类的内容为：

```
package com.dg.cache;

import java.util.Set;
import java.util.concurrent.locks.ReadWriteLock;
import java.util.concurrent.locks.ReentrantReadWriteLock;
```

```
import org.apache.commons.codec.digest.DigestUtils;
import org.apache.ibatis.cache.Cache;
import org.slf4j.Logger;
import org.slf4j.LoggerFactory;
import org.springframework.context.ApplicationContext;
import
org.springframework.context.support.ClassPathXmlApplicationContext;

import com.dg.util.SerializeUtil;

import redis.clients.jedis.Jedis;
import redis.clients.jedis.JedisPool;
import redis.clients.jedis.JedisPoolConfig;

/*
 * 使用第三方缓存服务器，处理二级缓存
 */
public class RedisCache implements Cache {

    private static Logger logger = LoggerFactory.getLogger(RedisCache.class);

    /** The ReadWriteLock. */
    private final ReadWriteLock readWriteLock = new
ReentrantReadWriteLock();
    private String id;
    private JedisPool jedisPool;
    private static final int DB_INDEX = 1;
    private final String COMMON_CACHE_KEY = "COM:";
    private static final String UTF8 = "utf-8";

    private ApplicationContext context;

    /**
     * 按照一定规则标识key
     */
    private String getKey(Object key) {
        StringBuilder accum = new StringBuilder();
        accum.append(COMMON_CACHE_KEY);
```

```
        accum.append(this.id).append(":");
        accum.append(DigestUtils.md5Hex(String.valueOf(key)));
        return accum.toString();
    }

    /**
     * redis key规则前缀
     */
    private String getKeys() {
        return COMMON_CACHE_KEY + this.id + ":*";
    }

    public RedisCache() {

    }

    public RedisCache(final String id) {
        if (id == null) {
            throw new IllegalArgumentException("必须传入ID");
        }
        context = new ClassPathXmlApplicationContext("spring-redis.xml");
        JedisPoolConfig jedisPoolConfig = (JedisPoolConfig)
context.getBean("jedisPoolConfig");
        jedisPool = new JedisPool(jedisPoolConfig, "192.168.12.90", 7504);
        logger.debug(">>>>>>>>>>>>>>>>>>>>>>MybatisRedisCache:id="
+ id);
        this.id = id;
    }

    @Override
    public String getId() {
        return this.id;
    }

    @Override
    public int getSize() {
        Jedis jedis = null;
        int result = 0;
        boolean borrowOrOprSuccess = true;
```

```
        try {
            jedis = jedisPool.getResource();
            jedis.select(DB_INDEX);
            Set<byte[]> keys = jedis.keys(getKeys().getBytes(UTF8));
            if (null != keys && !keys.isEmpty()) {
                result = keys.size();
            }
            logger.debug(this.id + "---->>>>总缓存数:" + result);
        } catch (Exception e) {
            borrowOrOprSuccess = false;
            if (jedis != null)
                jedisPool.returnBrokenResource(jedis);
        } finally {
            if (borrowOrOprSuccess)
                jedisPool.returnResource(jedis);
        }
        return result;
    }

    @Override
    public void putObject(Object key, Object value) {
        Jedis jedis = null;
        boolean borrowOrOprSuccess = true;
        try {
            jedis = jedisPool.getResource();
            jedis.select(DB_INDEX);

            byte[] keys = getKey(key).getBytes(UTF8);
            jedis.set(keys, SerializeUtil.serialize(value));
            logger.debug("添加缓存--------" + this.id);
            // getSize();
        } catch (Exception e) {
            borrowOrOprSuccess = false;
            if (jedis != null)
                jedisPool.returnBrokenResource(jedis);
        } finally {
            if (borrowOrOprSuccess)
                jedisPool.returnResource(jedis);
        }
```

```
    }

    @Override
    public Object getObject(Object key) {
        Jedis jedis = null;
        Object value = null;
        boolean borrowOrOprSuccess = true;
        try {
            jedis = jedisPool.getResource();
            jedis.select(DB_INDEX);
            value = SerializeUtil.unserialize(jedis.get(getKey(key).getBytes(UTF8)));
            logger.debug("从缓存中获取-----" + this.id);
            // getSize();
        } catch (Exception e) {
            borrowOrOprSuccess = false;
            if (jedis != null)
                jedisPool.returnBrokenResource(jedis);
        } finally {
            if (borrowOrOprSuccess)
                jedisPool.returnResource(jedis);
        }
        return value;
    }

    @Override
    public Object removeObject(Object key) {
        Jedis jedis = null;
        Object value = null;
        boolean borrowOrOprSuccess = true;
        try {
            jedis = jedisPool.getResource();
            jedis.select(DB_INDEX);
            value = jedis.del(getKey(key).getBytes(UTF8));
            logger.debug("LRU算法从缓存中移除-----" + this.id);
            // getSize();
        } catch (Exception e) {
            borrowOrOprSuccess = false;
            if (jedis != null)
                jedisPool.returnBrokenResource(jedis);
```

```
        } finally {
            if (borrowOrOprSuccess)
                jedisPool.returnResource(jedis);
        }
        return value;
    }

    @Override
    public void clear() {
        Jedis jedis = null;
        boolean borrowOrOprSuccess = true;
        try {
            jedis = jedisPool.getResource();
            jedis.select(DB_INDEX);
            // 如果有删除操作，会影响到整个表中的数据，因此要清空一个mapper的
缓存（一个mapper的不同数据操作对应不同的key）
            Set<byte[]> keys = jedis.keys(getKeys().getBytes(UTF8));
            logger.debug("出现CUD操作，清空对应Mapper缓存======>" +
keys.size());
            for (byte[] key : keys) {
                jedis.del(key);
            }
            // 下面是网上流传的方法，极大的降低系统性能，没起到加入缓存应有的作
用，这是不可取的。
            // jedis.flushDB();
            // jedis.flushAll();
        } catch (Exception e) {
            borrowOrOprSuccess = false;
            if (jedis != null)
                jedisPool.returnBrokenResource(jedis);
        } finally {
            if (borrowOrOprSuccess)
                jedisPool.returnResource(jedis);
        }
    }

    @Override
    public ReadWriteLock getReadWriteLock() {
        return readWriteLock;
```

```
    }
}
```

然后，在mapper文件中添加下列一行使对应的表添加缓存支持：

```
<cache eviction="LRU" type="com.dg.cache.RedisCache" />
//eviction:回收
```

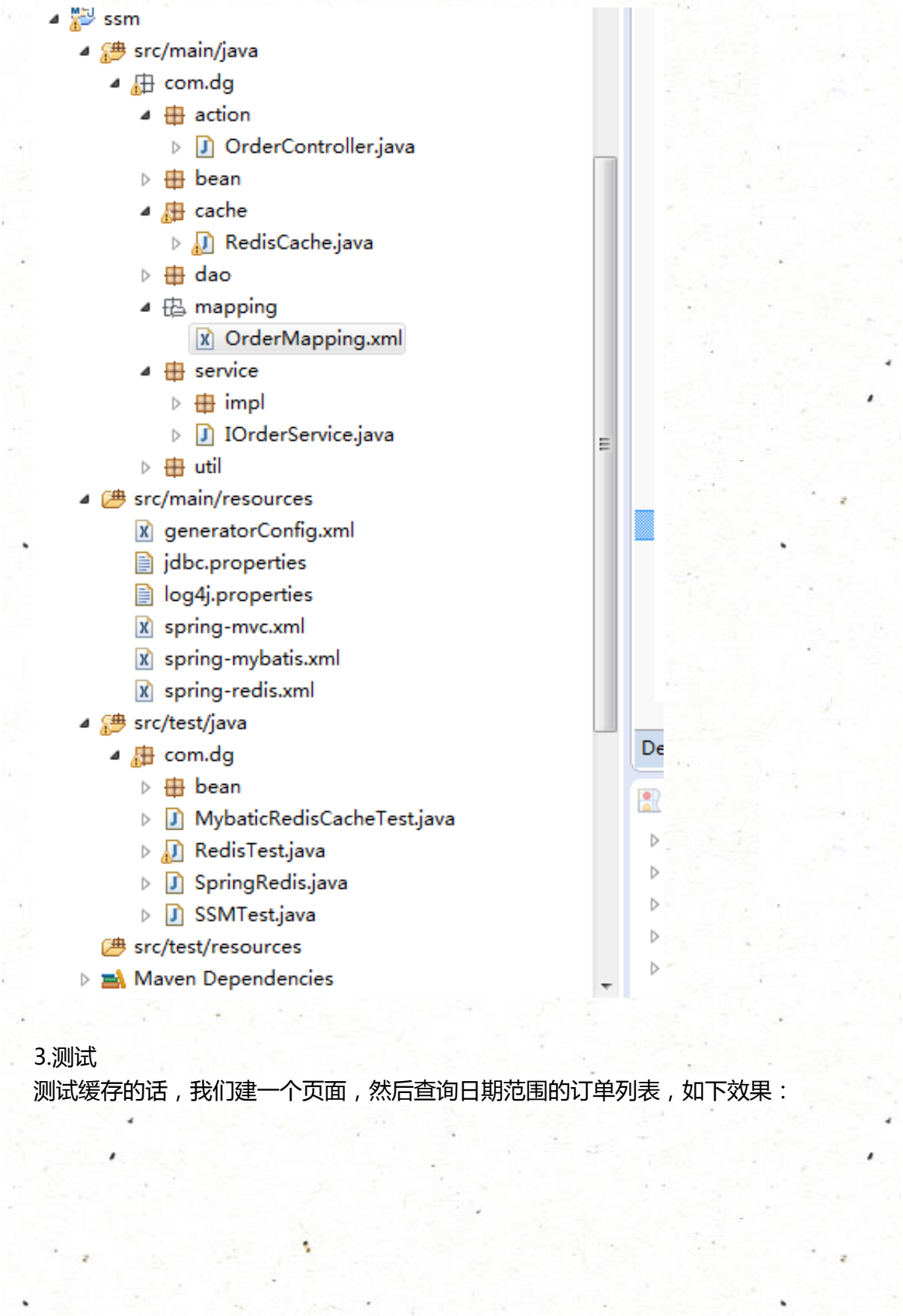
//LRU – Least Recently Used 近期最少使用算法

//FIFO – First In First Out

//SOFT – Soft Reference: Removes objects based on the garbage collector state and the rules of Soft References.

//WEAK – Weak Reference: More aggressively removes objects based on the garbage collector state and rules of Weak References.

我是以订单表数据作为缓存目标的（通常我们只是对不常变动的数据进行缓存，如登陆用户信息、系统业务配置信息等，这里我用订单表只是作为范例），应用结构如下：



3.测试

测试缓存的话，我们建一个页面，然后查询日期范围的订单列表，如下效果：

订单查询

订单日期：20150817
订单号：00181340000072
提交

按日期范围查询订单，测试redis缓存

开始日期：20160324
结束日期：20160326
提交

看输出的日志：

```
[org.springframework.web.servlet.DispatcherServlet] - DispatcherServlet with name 'SpringMVC' processing POST request for [/ssm/order/listOrders]
[org.springframework.web.servlet.mvc.annotation.DefaultAnnotationHandlerMapping] - Mapping [/order/listOrders] to HandlerExecutionChain with handler [com.dg.action.O
[org.springframework.web.bind.annotation.support.HandlerMethodInvoker] - Invoking request handler method: public org.springframework.web.servlet.ModelAndView com.dg.
[org.mybatis.spring.SqlSessionUtils] - Creating a new SqlSession
[org.mybatis.spring.SqlSessionUtils] - SqlSession [org.apache.ibatis.session.defaults.DefaultSqlSession@2a8309e7] was not registered for synchronization because sync
[com.dg.cache.RedisCache] - 从缓存中获取-----com.dg.dao.IOrderDao
[org.springframework.jdbc.datasource.DataSourceUtils] - Fetching JDBC Connection from DataSource
[org.mybatis.spring.transaction.SpringManagedTransaction] - JDBC Connection [jdbc:oracle:thin:@192.168.1.112:1521:orcl, UserName=KY, Oracle JDBC driver] will not be
[com.dg.dao.IOrderDao.selectByDate] - ==>  Preparing: select ORD_DATE, ORD_ID, CREATE_TIME, LST_UPD_TIME, TXN_TIME, TRANS_STAT, NOTICE_STAT, TXN_TYPE, TXN_SUB_TYPE,
[com.dg.dao.IOrderDao.selectByDate] - ==> Parameters: 20160324(String), 20160326(String)
[com.dg.dao.IOrderDao.selectByDate] - <==      Total: 41
[com.dg.cache.RedisCache] - 添加缓存-----com.dg.dao.IOrderDao
[org.mybatis.spring.SqlSessionUtils] - Closing non transactional SqlSession [org.apache.ibatis.session.defaults.DefaultSqlSession@2a8309e7]
[org.springframework.jdbc.datasource.DataSourceUtils] - Returning JDBC Connection to DataSource
[org.springframework.web.servlet.DispatcherServlet] - Rendering view [org.springframework.web.servlet.view.JstlView: name 'listOrders'; URL [/WEB-INF/jsp/listOrders.
[org.springframework.web.servlet.view.JstlView] - Added model object 'orderList' of type [java.util.ArrayList] to request in view with name 'listOrders'
[org.springframework.web.servlet.view.JstlView] - Forwarding to resource [/WEB-INF/jsp/listOrders.jsp] in InternalResourceView 'listOrders'
[org.springframework.web.servlet.DispatcherServlet] - Successfully completed request
```

可以看出，初次查询的时候，有sql语句，将订单列表查询出之后放入了缓存中去；返回来在执行刚才的查询动作时，只有下面的输出，说明第二次没再查库，而是直接从redis缓存中去取。

```
[org.springframework.web.servlet.mvc.annotation.DefaultAnnotationHandlerMapping] - Mapping [/order/listOrders] to HandlerExecutionChain with handler [com.dg.action.O
[org.springframework.web.bind.annotation.support.HandlerMethodInvoker] - Invoking request handler method: public org.springframework.web.servlet.ModelAndView com.dg.
[org.mybatis.spring.SqlSessionUtils] - Creating a new SqlSession
[org.mybatis.spring.SqlSessionUtils] - SqlSession [org.apache.ibatis.session.defaults.DefaultSqlSession@4acf770c] was not registered for synchronization because sync
[com.dg.cache.RedisCache] - 从缓存中获取-----com.dg.dao.IOrderDao
[org.mybatis.spring.SqlSessionUtils] - Closing non transactional SqlSession [org.apache.ibatis.session.defaults.DefaultSqlSession@4acf770c]
```

结果列表为：

1	20160325	00100529424460	yinShengKJ	1111	0000000000001000	200000000000004	1111	删除
2	20160325	00105225424461	yinShengB2C	1111	0000000000000001	200000000000005	1111	删除
3	20160325	00105751424462	yinShengB2C	1111	0000000000000001	200000000000005	1111	删除
4	20160325	00110204424463	yinShengB2C	1111	0000000000000001	200000000000005	1111	删除
5	20160325	00110646424464	yinShengB2C	1111	0000000000000001	200000000000005	1111	删除
6	20160325	00110815424465	yinShengB2C	1111	0000000000000001	200000000000005	1111	删除
7	20160325	00111202424466	yinShengB2C	1111	0000000000000001	200000000000005	1111	删除
8	20160325	00111749424467	yinShengB2C	1111	0000000000000001	200000000000005	1111	删除
9	20160325	00112006424468	yinShengB2C	1111	0000000000000001	200000000000005	1111	删除
10	20160325	00113829424469	yinShengB2C	1111	0000000000000001	200000000000005	1111	删除
11	20160325	00114116424470	yinShengB2C	1111	0000000000000001	200000000000005	1111	删除
12	20160325	00114154424471	yinShengB2C	1111	0000000000000001	200000000000005	1111	删除
13	20160325	00114552424472	yinShengB2C	1001	0000000001456456	200000000000005	1001	删除
14	20160325	00134503424473	yinShengB2C	1111	0000000000000001	200000000000005	1111	删除
15	20160325	00134520424474	yinShengB2C	1001	0000000000124234	200000000000005	1001	删除
16	20160325	00135148424475	yinShengKJ	1002	0000000000001000	200000000000004	1002	删除
17	20160325	00135509424476	yinShengB2C	1111	0000000000000001	200000000000005	1111	删除
18	20160325	00135608424478	yinShengKJ	1002	0000000000001000	200000000000004	1002	删除
19	20160325	00135624424477	yinShengB2C	1001	0000000001646456	200000000000005	1001	删除
20	20160325	00135854424479	yinShengKJ	1111	0000000000001000	200000000000004	1111	删除
21	20160325	00143342424480	yinShengKJ	1111	0000000000001000	200000000000004	1111	删除
22	20160325	00144101424481	yinShengB2C	1001	0000000001234234	200000000000005	1001	删除
23	20160325	00144932424482	yinShengB2C	1001	0000000012141234	200000000000005	1001	删除
24	20160325	00145900424483	yinShengKJ	1111	0000000000001000	200000000000004	1111	删除
25	20160325	00150727424484	yinShengB2C	1001	0000000000124124	200000000000005	1001	删除

以上只是简单介绍了redis和ssm的整合过程，如果需要完整的代码，到http://download.csdn.net/detail/donggang1992/9481612 下载。