链滴

# SpringBoot 入门教程 (六) | 用 JdbcTemplates 访问 Mysql

作者：JavaFish

原文链接：https://ld246.com/article/1621174197347

来源网站：链滴

# 前言

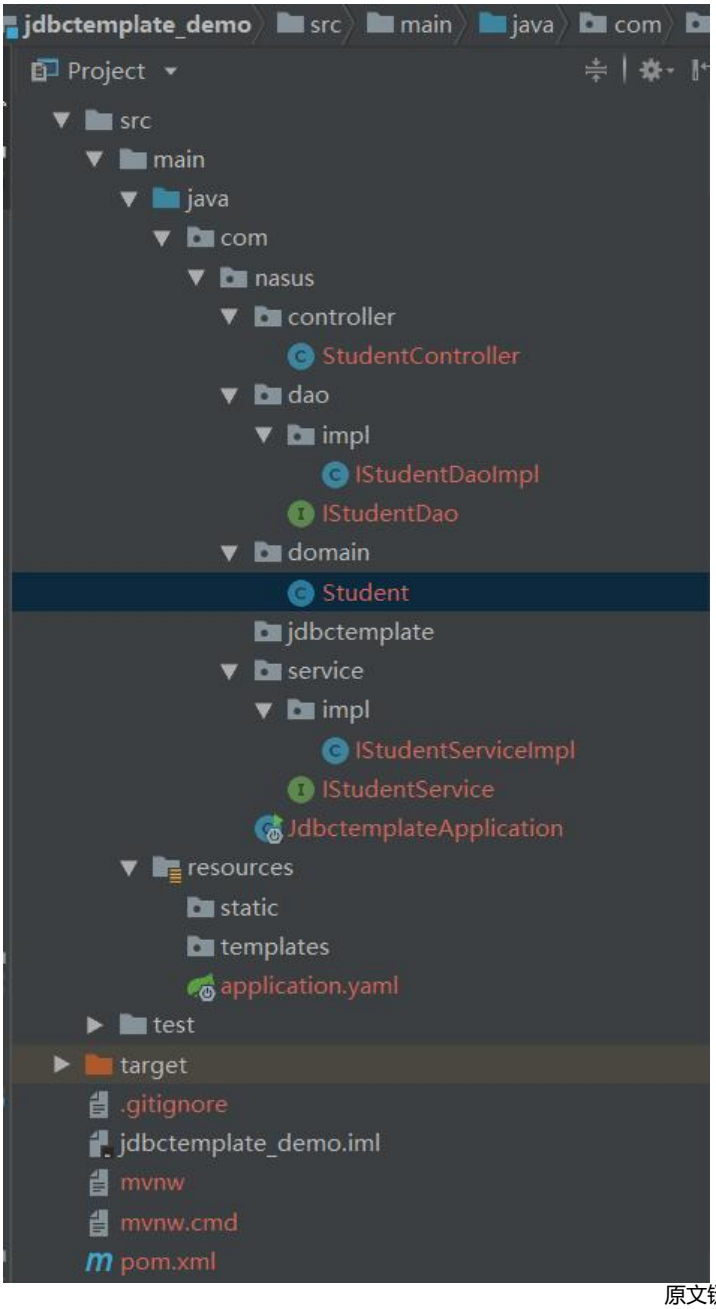
如题，今天介绍 springboot 通过jdbc访问关系型mysql,通过 spring 的 JdbcTemplate 去访问。

# 准备工作

- SpringBoot 2.x
- jdk 1.8
- maven 3.0
- idea
- mysql

构建 SpringBoot 项目，不会的朋友参考旧文章：如何使用 IDEA 构建 Spring Boot 工程

# 项目目录结构




原文链接：SpringBoot 入门教程 (六) | 用 JdbcTemplates 访问 Mysql

# pom 文件引入依赖

```
<dependencies>
        <!-- jdbcTemplate 依赖 -->
        <dependency>
            <groupId>org.springframework.boot</groupId>
            <artifactId>spring-boot-starter-jdbc</artifactId>
        </dependency>
        <!-- 开启web: -->
        <dependency>
            <groupId>org.springframework.boot</groupId>
            <artifactId>spring-boot-starter-web</artifactId>
        </dependency>

        <!-- mysql连接类 -->
        <dependency>
            <groupId>mysql</groupId>
            <artifactId>mysql-connector-java</artifactId>
            <scope>runtime</scope>
        </dependency>
        <!-- https://mvnrepository.com/artifact/com.alibaba/druid -->
        <!-- druid 连接池-->
        <dependency>
            <groupId>com.alibaba</groupId>
            <artifactId>druid</artifactId>
            <version>1.1.13</version>
        </dependency>

     <dependency>
            <groupId>org.springframework.boot</groupId>
            <artifactId>spring-boot-starter-test</artifactId>
            <scope>test</scope>
    </dependency>
</dependencies>
```

# application.yaml 配置数据库信息

```
spring:
  datasource:
    driver-class-name: com.mysql.jdbc.Driver
    url: jdbc:mysql://127.0.0.1:3306/test?useUnicode=true&characterEncoding=utf8&serverTi
ezone=UTC&useSSL=true
    username: 数据库用户名
    password: 数据库密码
```

# 实体类

```
package com.nasus.domain;

/**
 * Project Name:jdbctemplate_demo <br/>
 * Package Name:com.nasus.domain <br/>
 * Date:2019/2/3 10:55 <br/>
```

```
 * <b>Description:</b> TODO: 描述该类的作用 <br/>
 *
 * @author <a href="turodog@foxmail.com">nasus</a><br/>
 * Copyright Notice ==========================================================
==========
 * This file contains proprietary information of Eastcom Technologies Co. Ltd.
 * Copying or reproduction without prior written approval is prohibited.
 * Copyright (c) 2019 ========================================================
========
 */
public class Student {

    private Integer id;

    private String name;

    private Integer age;

    public Integer getId() {
        return id;
    }

    public void setId(Integer id) {
        this.id = id;
    }

    public String getName() {
        return name;
    }

    public void setName(String name) {
        this.name = name;
    }

    public Integer getAge() {
        return age;
    }

    public void setAge(Integer age) {
        this.age = age;
    }

    @Override
    public String toString() {
        return "Student{" +
                "id=" + id +
                ", name='" + name + '\'' +
                ", age=" + age +
                '}';
    }
}
```

# dao 层

```
package com.nasus.dao;

import com.nasus.domain.Student;
import java.util.List;

/**
 * Project Name:jdbctemplate_demo <br/>
 * Package Name:com.nasus.dao <br/>
 * Date:2019/2/3 10:59 <br/>
 * <b>Description:</b> TODO: 描述该类的作用 <br/>
 * @author <a href="turodog@foxmail.com">nasus</a><br/>
 */
public interface IStudentDao {

    int add(Student student);

    int update(Student student);

    int delete(int id);

    Student findStudentById(int id);

    List<Student> findStudentList();

}
```

具体实现类：

```
package com.nasus.dao.impl;

import com.nasus.dao.IStudentDao;
import com.nasus.domain.Student;
import java.util.List;
import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.jdbc.core.BeanPropertyRowMapper;
import org.springframework.jdbc.core.JdbcTemplate;
import org.springframework.stereotype.Repository;

/**
 * Project Name:jdbctemplate_demo <br/>
 * Package Name:com.nasus.dao.impl <br/>
 * Date:2019/2/3 11:00 <br/>
 * <b>Description:</b> TODO: 描述该类的作用 <br/>
 *
 * @author <a href="turodog@foxmail.com">nasus</a><br/>
 */
@Repository
public class IStudentDaoImpl implements IStudentDao{

    @Autowired
    private JdbcTemplate jdbcTemplate;

    @Override
    public int add(Student student) {
```

```
        return jdbcTemplate.update("insert into student(name, age) values(?, ?)",
                student.getName(),student.getAge());
    }

    @Override
    public int update(Student student) {
        return jdbcTemplate.update("UPDATE  student SET NAME=? ,age=? WHERE id=?",
                student.getName(),student.getAge(),student.getId());
    }

    @Override
    public int delete(int id) {
        return jdbcTemplate.update("DELETE from TABLE student where id=?",id);
    }

    @Override
    public Student findStudentById(int id) {
        // BeanPropertyRowMapper 使获取的 List 结果列表的数据库字段和实体类自动对应
        List<Student> list = jdbcTemplate.query("select * from student where id = ?", new Objec
[]{id}, new BeanPropertyRowMapper(Student.class));
        if(list!=null && list.size()>0){
            Student student = list.get(0);
            return student;
        }else{
            return null;
        }
    }

    @Override
    public List<Student> findStudentList() {
        // 使用Spring的JdbcTemplate查询数据库，获取List结果列表，数据库表字段和实体类自动对
，可以使用BeanPropertyRowMapper
        List<Student> list = jdbcTemplate.query("select * from student", new Object[]{}, new Be
nPropertyRowMapper(Student.class));
        if(list!=null && list.size()>0){
            return list;
        }else{
            return null;
        }
    }

}
```

## service 层

```
package com.nasus.service;

import com.nasus.domain.Student;
import java.util.List;

/**
 * Project Name:jdbctemplate_demo <br/>
 * Package Name:com.nasus.service <br/>
 * Date:2019/2/3 11:17 <br/>
```

```
 * <b>Description:</b> TODO: 描述该类的作用 <br/>
 *
 * @author <a href="turodog@foxmail.com">nasus</a><br/>
 */
public interface IStudentService {

    int add(Student student);

    int update(Student student);

    int delete(int id);

    Student findStudentById(int id);

    List<Student> findStudentList();

}
```

实现类：

```
package com.nasus.service.impl;

import com.nasus.dao.IStudentDao;
import com.nasus.domain.Student;
import com.nasus.service.IStudentService;
import java.util.List;
import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.stereotype.Repository;

/**
 * Project Name:jdbctemplate_demo <br/>
 * Package Name:com.nasus.service.impl <br/>
 * Date:2019/2/3 11:18 <br/>
 * <b>Description:</b> TODO: 描述该类的作用 <br/>
 *
 * @author <a href="turodog@foxmail.com">nasus</a><br/>
 * Copyright Notice ==========================================================
 * This file contains proprietary information of Eastcom Technologies Co. Ltd.
 * Copying or reproduction without prior written approval is prohibited.
 * Copyright (c) 2019 ========================================================
 */
@Repository
public class IStudentServiceImpl implements IStudentService {

    @Autowired
    private IStudentDao iStudentDao;

    @Override
    public int add(Student student) {
        return iStudentDao.add(student);
    }
```

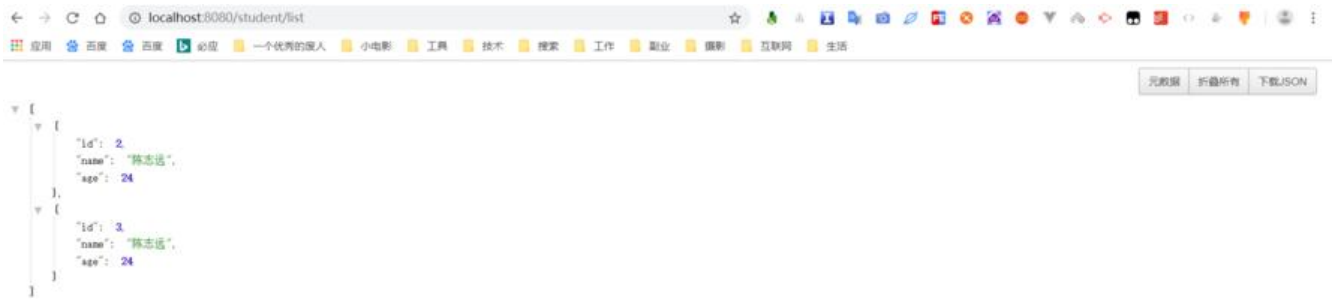
```
    @Override
    public int update(Student student) {
        return iStudentDao.update(student);
    }

    @Override
    public int delete(int id) {
        return iStudentDao.delete(id);
    }

    @Override
    public Student findStudentById(int id) {
        return iStudentDao.findStudentById(id);
    }

    @Override
    public List<Student> findStudentList() {
        return iStudentDao.findStudentList();
    }

}
```

# controller 构建 restful api

```
package com.nasus.controller;

import com.nasus.domain.Student;
import com.nasus.service.IStudentService;
import java.util.List;
import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.web.bind.annotation.DeleteMapping;
import org.springframework.web.bind.annotation.GetMapping;
import org.springframework.web.bind.annotation.PathVariable;
import org.springframework.web.bind.annotation.PostMapping;
import org.springframework.web.bind.annotation.PutMapping;
import org.springframework.web.bind.annotation.RequestBody;
import org.springframework.web.bind.annotation.RequestMapping;
import org.springframework.web.bind.annotation.RestController;

/**
 * Project Name:jdbctemplate_demo <br/>
 * Package Name:com.nasus.controller <br/>
 * Date:2019/2/3 11:21 <br/>
 * <b>Description:</b> TODO: 描述该类的作用 <br/>
 *
 * @author <a href="turodog@foxmail.com">nasus</a><br/>
 */
@RestController
@RequestMapping("/student")
public class StudentController {

    @Autowired
    private IStudentService iStudentService;
```

```
    @PostMapping("")
    public int addStudent(@RequestBody Student student){
        return iStudentService.add(student);
    }

    @PutMapping("/{id}")
    public String updateStudent(@PathVariable Integer id, @RequestBody Student student){
        Student oldStudent = new Student();
        oldStudent.setId(id);
        oldStudent.setName(student.getName());
        oldStudent.setAge(student.getAge());
        int t = iStudentService.update(oldStudent);
        if (t == 1){
            return student.toString();
        }else {
            return "更新学生信息错误";
        }
    }

    @GetMapping("/{id}")
    public Student findStudentById(@PathVariable Integer id){
        return iStudentService.findStudentById(id);
    }

    @GetMapping("/list")
    public List<Student> findStudentList(){
        return iStudentService.findStudentList();
    }

    @DeleteMapping("/{id}")
    public int deleteStudentById(@PathVariable Integer id){
        return iStudentService.delete(id);
    }
}
```

# 演示结果




其他的 api 测试可以通过 postman 测试。我这里已经全部测试通过，请放心使用。

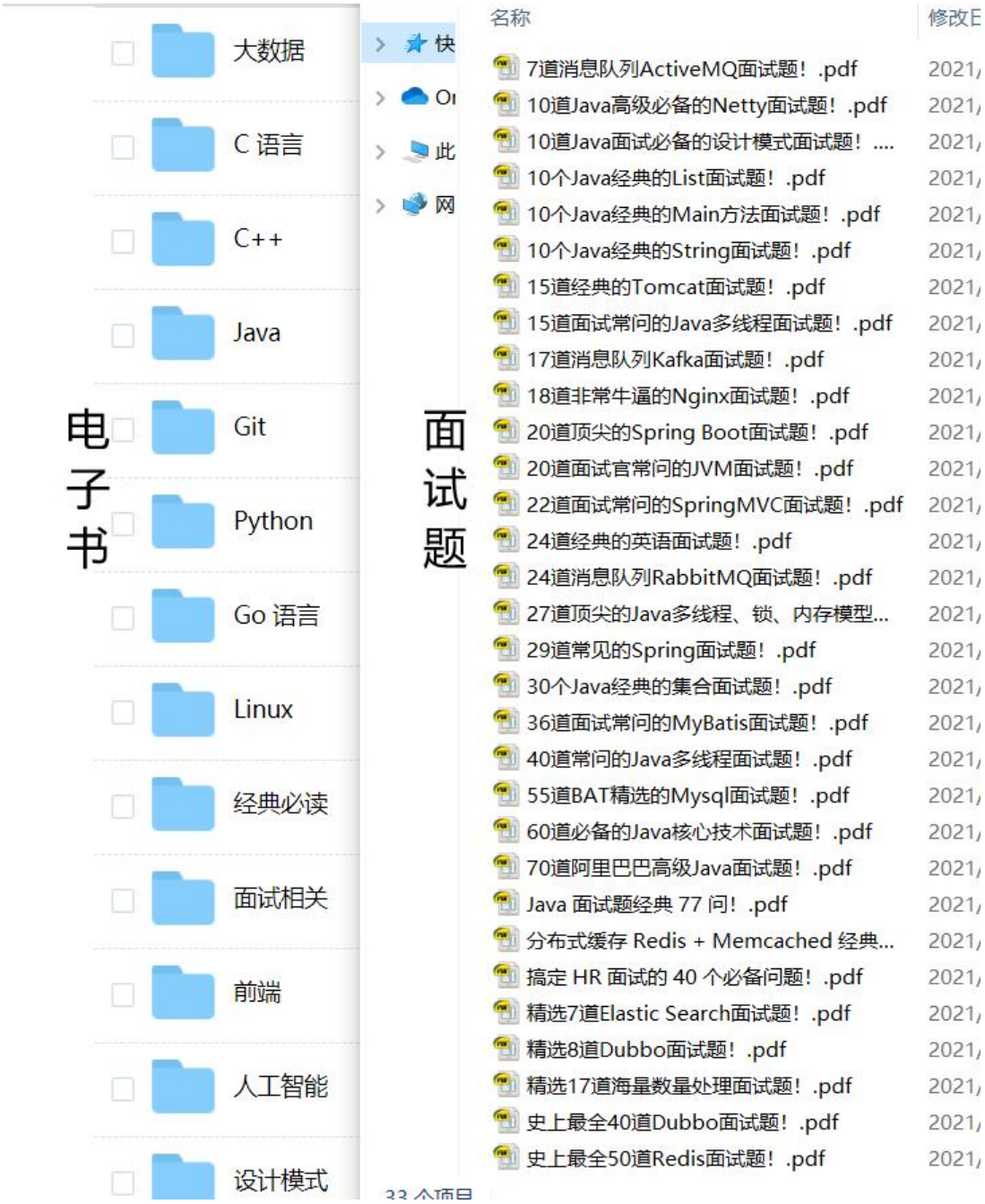
源码下载：https://github.com/turoDog/Demo/tree/master/jdbctemplate_demo

# 后语

以上SpringBoot 用 JdbcTemplates 访问Mysql 的教程。

初次见面，也不知道送你们啥。干脆就送**几百本电子书**和**2021最新面试资料**吧。微信搜索**JavaFish**复**电子书**送你 1000+ 本编程电子书；回复**面试**获取 50 套大厂面试题；回复**1024**送你一套完整的 jav 视频教程。

面试题都是有答案的，如下所示：有需要的就来拿吧，**绝对免费，无套路获取。**



JavaFish

微信扫描二维码，关注我的公众号

原文链接：SpringBoot 入门教程 (六) | 用 JdbcTemplates 访问 Mysql