作业号：JW\_27 得分：

题目要求(作业题干)

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| JW\_27 过滤器  1. 字符编码过滤器  1.1 urlPatterns设置为：适用于任何资源  1.2 login目录下的资源，不适用于该过滤器  （提示：如果uri中含有"/login"，则不设置字符编码）  1.3 如果是增加和修改功能，则设置请求和响应字符编码为UTF-8。如果是删除、查询功能，则仅设置响应字符编码为UTF-8  （提示：如果request.getMethod 是 "POST"或“PUT”，则请求和响应字符编码，否则仅设置响应编码）  2. 日志过滤器  打印被请求的资源名称和请求时间，格式如“school.ctl @ 2019年11月20日17：32”  第14周周六进行期末答辩，内容为本学期1-13周讲课内容，作业内容占99%。报告模板于下13周周四之前发放。 |

源程序(打印版本不得含有注释，不能修改字体字号)

**Filter0\_Encoding类**

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| 01 package filter;  02  03 import javax.servlet.\*;  04 import javax.servlet.annotation.WebFilter;  05 import javax.servlet.http.HttpServletRequest;  06 import javax.servlet.http.HttpServletResponse;  07 import java.io.IOException;  08  09 @WebFilter(filterName = "Filter 0", urlPatterns = {"/\*"})  10  11 public class Filter0\_Encoding implements Filter {  12 @Override  13 public void init(FilterConfig filterConfig) throws ServletException {}  14  15 @Override  16 public void destroy() {}  17  18 @Override  19 public void doFilter(ServletRequest servletRequest, ServletResponse servletResponse,  20 FilterChain filterChain) throws IOException, ServletException {  21 System.out.println("Filter 0 - encoding begins");  22 HttpServletRequest request = (HttpServletRequest)servletRequest;  23 HttpServletResponse response=(HttpServletResponse)servletResponse;  24 String path= request.getRequestURI();  25 String method=request.getMethod();  26 if (path.contains("/login")){  27 System.out.println("未设置字符编码格式");  28 }else {  29 System.out.println(method);  30 response.setContentType("text/html;charset=UTF-8");  31 System.out.println("设置响应对象字符编码格式为utf8");  32 if (method.equals("POST")||method.equals("PUT")){  33 request.setCharacterEncoding("UTF-8");  34 System.out.println("设置请求对象字符编码格式为utf8");  35 }  36 }  37 filterChain.doFilter(servletRequest,servletResponse);  38 System.out.println("Filter 0 - encoding ends"+"\n");  39 }  40 } |

**Filter1\_Date类**

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| 01 package filter;  02  03 import javax.servlet.\*;  04 import javax.servlet.annotation.WebFilter;  05 import javax.servlet.http.HttpServletRequest;  06 import java.io.IOException;  07 import java.util.Calendar;  08  09 @WebFilter(filterName = "Filter 1", urlPatterns = {"/\*"})  10 public class Filter1\_Date implements Filter {  11 @Override  12 public void init(FilterConfig filterConfig) throws ServletException {}  13  14 @Override  15 public void destroy() {}  16  17 @Override  18 public void doFilter(ServletRequest servletRequest, ServletResponse servletResponse, FilterChain filterChain) throws IOException, ServletException {  19 System.out.println("Filter 1 - date begins");  20 HttpServletRequest request=(HttpServletRequest)servletRequest;  21 String path=request.getRequestURI();  22 Calendar cal = Calendar.getInstance();  23 String time= cal.get(Calendar.YEAR)+"年"+(cal.get(Calendar.MONTH) + 1)+"月"+cal.get(Calendar.DATE)+"日"+cal.get(Calendar.HOUR\_OF\_DAY)+": "+cal.get(Calendar.MINUTE);  24 System.out.println(path+" @ "+time);  25 filterChain.doFilter(servletRequest,servletResponse);  26 System.out.println("Filter 1 - date ends");  27 }  28 } |  |

**SchoolController类**

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| 001 package controller.school;  002  003 import domain.School;  004 import service.SchoolService;  005 import com.alibaba.fastjson.JSON;  006 import com.alibaba.fastjson.JSONObject;  007 import com.alibaba.fastjson.serializer.SerializerFeature;  008 import util.JSONUtil;  009  010 import javax.servlet.ServletException;  011 import javax.servlet.annotation.WebServlet;  012 import javax.servlet.http.HttpServlet;  013 import javax.servlet.http.HttpServletRequest;  014 import javax.servlet.http.HttpServletResponse;  015 import java.io.IOException;  016 import java.sql.SQLException;  017 import java.util.Collection;  018  019 /\*\*  020 \* 前台url:http://49.234.109.117:8080/bysj/myschool/index.html  021 \*/  022 @WebServlet("/school.ctl")  023 public class SchoolController extends HttpServlet {  024 //请使用以下JSON测试增加功能  025 //{"description":"艺术学院","no":"04","remarks":""}  026 //请使用以下JSON测试修改功能  027 //{"description":"土木学院","id":4,"no":"04","remarks":""}  028  029 /\*\*  030 \* POST, http://49.234.109.117:8080/bysj/school.ctl, 增加学院  031 \*/  032 @Override  033 protected void doPost(HttpServletRequest request, HttpServletResponse response)  034 throws ServletException, IOException {  035  036 String school\_json = JSONUtil.getJSON(request);  037 School schoolToAdd = JSON.parseObject(school\_json, School.class);  038  039  040 JSONObject message = new JSONObject();  041 try {  042 SchoolService.getInstance().add(schoolToAdd);  043 message.put("message", "增加成功");  044 }catch (SQLException e){  045 message.put("message", "数据库操作异常");  046 e.printStackTrace();  047 }catch(Exception e){  048 message.put("message", "网络异常");  049 e.printStackTrace();  050 }  051 response.getWriter().println(message);  052 }  053  054 /\*\*  055 \* DELETE, http://49.234.109.117:8080/bysj/school.ctl?id=1, 删除id=1的学院  056 \*/  057 @Override  058 protected void doDelete(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {  059 String id\_str = request.getParameter("id");  060 int id = Integer.parseInt(id\_str);  061  062  063 JSONObject message = new JSONObject();  064  065 try {  066 SchoolService.getInstance().delete(id);  067 message.put("message", "删除成功");  068 }catch (SQLException e){  069 message.put("message", "数据库操作异常");  070 e.printStackTrace();  071 }catch(Exception e){  072 message.put("message", "网络异常");  073 e.printStackTrace();  074 }  075 response.getWriter().println(message);  076 }  077  078  079 /\*\*  080 \* PUT, http://49.234.109.117:8080/bysj/school.ctl, 修改学院  081 \*/  082 @Override  083 protected void doPut(HttpServletRequest request, HttpServletResponse response)  084 throws ServletException, IOException {  085  086 String school\_json = JSONUtil.getJSON(request);  087 School schoolToAdd = JSON.parseObject(school\_json, School.class);  088  089  090 JSONObject message = new JSONObject();  091 try {  092 SchoolService.getInstance().update(schoolToAdd);  093 message.put("message", "修改成功");  094 }catch (SQLException e){  095 message.put("message", "数据库操作异常");  096 e.printStackTrace();  097 }catch(Exception e){  098 message.put("message", "网络异常");  099 e.printStackTrace();  100 }  101 response.getWriter().println(message);  102 }  103  104 /\*\*  105 \* GET, http://49.234.109.117:8080/bysj/school.ctl?id=1, 查询id=1的学院  106 \* GET, http://49.234.109.117:8080/bysj/school.ctl, 查询所有的学院  107 \*/  108 @Override  109 protected void doGet(HttpServletRequest request, HttpServletResponse response)  110 throws ServletException, IOException {  111  112 String id\_str = request.getParameter("id");  113  114 JSONObject message = new JSONObject();  115 try {  116 if (id\_str == null) {  117 responseSchools(response);  118 } else {  119 int id = Integer.parseInt(id\_str);  120 responseSchool(id, response);  121 }  122 }catch (SQLException e){  123 message.put("message", "数据库操作异常");  124 e.printStackTrace();  125 response.getWriter().println(message);  126 }catch(Exception e){  127 message.put("message", "网络异常");  128 e.printStackTrace();  129 response.getWriter().println(message);  130 }  131 }  132  133 private void responseSchool(int id, HttpServletResponse response)  134 throws ServletException, IOException, SQLException {  135 School school = SchoolService.getInstance().find(id);  136 String school\_json = JSON.toJSONString(school);  137  138 response.getWriter().println(school\_json);  139 }  140  141 private void responseSchools(HttpServletResponse response)  142 throws ServletException, IOException, SQLException {  143 Collection<School> schools = SchoolService.getInstance().findAll();  144 String schools\_json = JSON.toJSONString(schools, SerializerFeature.DisableCircularReferenceDetect);  145  146 response.getWriter().println(schools\_json);  147 }  148 } |

**ProfTitleController类**

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| 001 package controller.profTitle;  002  003 import com.alibaba.fastjson.JSON;  004 import com.alibaba.fastjson.JSONObject;  005 import com.alibaba.fastjson.serializer.SerializerFeature;  006 import domain.ProfTitle;  007 import service.ProfTitleService;  008 import util.JSONUtil;  009  010 import javax.servlet.ServletException;  011 import javax.servlet.annotation.WebServlet;  012 import javax.servlet.http.HttpServlet;  013 import javax.servlet.http.HttpServletRequest;  014 import javax.servlet.http.HttpServletResponse;  015 import java.io.IOException;  016 import java.sql.SQLException;  017 import java.util.Collection;  018  019 @WebServlet("/profTitle.ctl")  020 public class ProfTitleController extends HttpServlet {  021 //请使用以下JSON测试增加功能  022 //{"description":"讲师","no":"03","remarks":""}  023 //请使用以下JSON测试修改功能  024 //{"description":"助理","id":4,"no":"04","remarks":""}  025  026 /\*\*  027 \* POST, http://49.234.109.117:8080/bysj/profTitle.ctl, 增加头衔  028 \*/  029 @Override  030 protected void doPost(HttpServletRequest request, HttpServletResponse response)  031 throws ServletException, IOException {  032  033 String profTitle\_json = JSONUtil.getJSON(request);  034 ProfTitle profTitleToAdd = JSON.parseObject(profTitle\_json, ProfTitle.class);  035  036  037 JSONObject message = new JSONObject();  038 try {  039 ProfTitleService.getInstance().add(profTitleToAdd);  040 message.put("message", "增加成功");  041 }catch (SQLException e){  042 message.put("message", "数据库操作异常");  043 e.printStackTrace();  044 }catch(Exception e){  045 message.put("message", "网络异常");  046 e.printStackTrace();  047 }  048 response.getWriter().println(message);  049 }  050  051 /\*\*  052 \* DELETE, http://49.234.109.117:8080/bysj/profTitle.ctl?id=1, 删除id=1的头衔  053 \*/  054 @Override  055 protected void doDelete(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {  056 String id\_str = request.getParameter("id");  057 int id = Integer.parseInt(id\_str);  058  059  060 JSONObject message = new JSONObject();  061  062 try {  063 ProfTitleService.getInstance().delete(id);  064 message.put("message", "删除成功");  065 }catch (SQLException e){  066 message.put("message", "数据库操作异常");  067 e.printStackTrace();  068 }catch(Exception e){  069 message.put("message", "网络异常");  070 e.printStackTrace();  071 }  072 response.getWriter().println(message);  073 }  074  075  076 /\*\*  077 \* PUT, http://49.234.109.117:8080/bysj/profTitle.ctl, 修改头衔  078 \*/  079 @Override  080 protected void doPut(HttpServletRequest request, HttpServletResponse response)  081 throws ServletException, IOException {  082  083 String profTitle\_json = JSONUtil.getJSON(request);  084 ProfTitle profTitleToAdd = JSON.parseObject(profTitle\_json, ProfTitle.class);  085  086  087 JSONObject message = new JSONObject();  088 try {  089 ProfTitleService.getInstance().update(profTitleToAdd);  090 message.put("message", "修改成功");  091 }catch (SQLException e){  092 message.put("message", "数据库操作异常");  093 e.printStackTrace();  094 }catch(Exception e){  095 message.put("message", "网络异常");  096 e.printStackTrace();  097 }  098 response.getWriter().println(message);  099 }  100  101 /\*\*  102 \* GET, http://49.234.109.117:8080/bysj/profTitle.ctl?id=1, 查询id=1的头衔  103 \* GET, http://49.234.109.117:8080/bysj/profTitle.ctl, 查询所有的头衔  104 \*/  105 @Override  106 protected void doGet(HttpServletRequest request, HttpServletResponse response)  107 throws ServletException, IOException {  108  109 String id\_str = request.getParameter("id");  110  111 JSONObject message = new JSONObject();  112 try {  113 if (id\_str == null) {  114 responseProfTitles(response);  115 } else {  116 int id = Integer.parseInt(id\_str);  117 responseProfTitle(id, response);  118 }  119 }catch (SQLException e){  120 message.put("message", "数据库操作异常");  121 e.printStackTrace();  122 response.getWriter().println(message);  123 }catch(Exception e){  124 message.put("message", "网络异常");  125 e.printStackTrace();  126 response.getWriter().println(message);  127 }  128 }  129 private void responseProfTitle(int id, HttpServletResponse response)  130 throws ServletException, IOException, SQLException {  131 ProfTitle profTitle = ProfTitleService.getInstance().find(id);  132 String profTitle\_json = JSON.toJSONString(profTitle);  133  134 response.getWriter().println(profTitle\_json);  135 }  136 private void responseProfTitles(HttpServletResponse response)  137 throws ServletException, IOException, SQLException {  138 Collection<ProfTitle> profTitles = ProfTitleService.getInstance().findAll();  139 String profTitles\_json = JSON.toJSONString(profTitles, SerializerFeature.DisableCircularReferenceDetect);  140  141 response.getWriter().println(profTitles\_json);  142 }  143 } |

**DegreeController类**

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| 001 package controller.degree;  002  003 import com.alibaba.fastjson.JSON;  004 import com.alibaba.fastjson.JSONObject;  005 import com.alibaba.fastjson.serializer.SerializerFeature;  006 import domain.Degree;  007 import service.DegreeService;  008 import util.JSONUtil;  009  010 import javax.servlet.ServletException;  011 import javax.servlet.annotation.WebServlet;  012 import javax.servlet.http.HttpServlet;  013 import javax.servlet.http.HttpServletRequest;  014 import javax.servlet.http.HttpServletResponse;  015 import java.io.IOException;  016 import java.sql.SQLException;  017 import java.util.Collection;  018  019 @WebServlet("/degree.ctl")  020 public class DegreeController extends HttpServlet {  021 //请使用以下JSON测试增加功能  022 //{"description":"专科","no":"03","remarks":""}  023 //请使用以下JSON测试修改功能  024 //{"description":"高中","id":4,"no":"05","remarks":""}  025  026 /\*\*  027 \* POST, http://49.234.109.117:8080/bysj/degree.ctl, 增加学位  028 \*/  029 @Override  030 protected void doPost(HttpServletRequest request, HttpServletResponse response)  031 throws ServletException, IOException {  032  033 String degree\_json = JSONUtil.getJSON(request);  034  035 Degree degreeToAdd = JSON.parseObject(degree\_json, Degree.class);  036  037  038 JSONObject message = new JSONObject();  039 try {  040 DegreeService.getInstance().add(degreeToAdd);  041 message.put("message", "增加成功");  042 }catch (SQLException e){  043 message.put("message", "数据库操作异常");  044 e.printStackTrace();  045 }catch(Exception e){  046 message.put("message", "网络异常");  047 e.printStackTrace();  048 }  049 response.getWriter().println(message);  050 }  051  052 /\*\*  053 \* DELETE, http://49.234.109.117:8080/bysj/degree.ctl?id=1, 删除id=1的学位  054 \*/  055 @Override  056 protected void doDelete(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {  057 String id\_str = request.getParameter("id");  058 int id = Integer.parseInt(id\_str);  059  060  061 JSONObject message = new JSONObject();  062  063 try {  064 DegreeService.getInstance().delete(id);  065 message.put("message", "删除成功");  066 }catch (SQLException e){  067 message.put("message", "数据库操作异常");  068 e.printStackTrace();  069 }catch(Exception e){  070 message.put("message", "网络异常");  071 e.printStackTrace();  072 }  073 response.getWriter().println(message);  074 }  075  076  077 /\*\*  078 \* PUT, http://49.234.109.117:8080/bysj/degree.ctl, 修改学位  079 \*/  080 @Override  081 protected void doPut(HttpServletRequest request, HttpServletResponse response)  082 throws ServletException, IOException {  083  084 String degree\_json = JSONUtil.getJSON(request);  085 Degree degreeToAdd = JSON.parseObject(degree\_json, Degree.class);  086  087  088 JSONObject message = new JSONObject();  089 try {  090 DegreeService.getInstance().update(degreeToAdd);  091 message.put("message", "修改成功");  092 }catch (SQLException e){  093 message.put("message", "数据库操作异常");  094 e.printStackTrace();  095 }catch(Exception e){  096 message.put("message", "网络异常");  097 e.printStackTrace();  098 }  099 response.getWriter().println(message);  100 }  101  102 /\*\*  103 \* GET, http://49.234.109.117:8080/bysj/degree.ctl?id=1, 查询id=1的学位  104 \* GET, http://49.234.109.117:8080/bysj/degree.ctl, 查询所有的学位  105 \*/  106 @Override  107 protected void doGet(HttpServletRequest request, HttpServletResponse response)  108 throws ServletException, IOException {  109  110 String id\_str = request.getParameter("id");  111  112 JSONObject message = new JSONObject();  113 try {  114 if (id\_str == null) {  115 responseDegrees(response);  116 } else {  117 int id = Integer.parseInt(id\_str);  118 responseDegree(id, response);  119 }  120 }catch (SQLException e){  121 message.put("message", "数据库操作异常");  122 response.getWriter().println(message);  123 e.printStackTrace();  124 }catch(Exception e){  125 message.put("message", "网络异常");  126 response.getWriter().println(message);  127 e.printStackTrace();  128 }  129 }  130 private void responseDegree(int id, HttpServletResponse response)  131 throws ServletException, IOException, SQLException {  132 Degree degree = DegreeService.getInstance().find(id);  133 String degree\_json = JSON.toJSONString(degree);  134  135 response.getWriter().println(degree\_json);  136 }  137 private void responseDegrees(HttpServletResponse response)  138 throws ServletException, IOException, SQLException {  139 Collection<Degree> degrees = DegreeService.getInstance().findAll();  140 String degrees\_json = JSON.toJSONString(degrees, SerializerFeature.DisableCircularReferenceDetect);  141  142 response.getWriter().println(degrees\_json);  143 }  144 } |

**DepartmentController类**

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| 001 package controller.department;  002  003 import com.alibaba.fastjson.JSON;  004 import com.alibaba.fastjson.JSONObject;  005 import com.alibaba.fastjson.serializer.SerializerFeature;  006 import domain.Department;  007 import service.DepartmentService;  008 import util.JSONUtil;  009  010 import javax.servlet.ServletException;  011 import javax.servlet.annotation.WebServlet;  012 import javax.servlet.http.HttpServlet;  013 import javax.servlet.http.HttpServletRequest;  014 import javax.servlet.http.HttpServletResponse;  015 import java.io.IOException;  016 import java.sql.SQLException;  017 import java.util.Collection;  018  019 @WebServlet("/department.ctl")  020 public class DepartmentController extends HttpServlet {  021 //请使用以下JSON测试增加功能  022 //{"description":"造价","no":"07","remarks":"","school":{"id":1}}  023 //请使用以下JSON测试修改功能  024 //{"description":"应用化学","id":6,"no":"05","remarks":"","school":{"id":2}}  025  026 /\*\*  027 \* POST, http://49.234.109.117:8080/bysj/department.ctl, 增加专业  028 \*/  029 @Override  030 protected void doPost(HttpServletRequest request, HttpServletResponse response)  031 throws ServletException, IOException {  032  033 String department\_json = JSONUtil.getJSON(request);  034  035 Department departmentToAdd = JSON.parseObject(department\_json, Department.class);  036  037  038 JSONObject message = new JSONObject();  039 try {  040 DepartmentService.getInstance().add(departmentToAdd);  041 message.put("message", "增加成功");  042 }catch (SQLException e){  043 message.put("message", "数据库操作异常");  044 e.printStackTrace();  045 }catch(Exception e){  046 message.put("message", "网络异常");  047 e.printStackTrace();  048 }  049 response.getWriter().println(message);  050 }  051  052 /\*\*  053 \* DELETE, http://49.234.109.117:8080/bysj/department.ctl?id=1, 删除id=1的专业  054 \*/  055 @Override  056 protected void doDelete(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {  057 String id\_str = request.getParameter("id");  058 int id = Integer.parseInt(id\_str);  059  060  061 JSONObject message = new JSONObject();  062  063 try {  064 DepartmentService.getInstance().delete(id);  065 message.put("message", "删除成功");  066 }catch (SQLException e){  067 message.put("message", "数据库操作异常");  068 e.printStackTrace();  069 }catch(Exception e){  070 message.put("message", "网络异常");  071 e.printStackTrace();  072 }  073 response.getWriter().println(message);  074 }  075  076  077 /\*\*  078 \* PUT, http://49.234.109.117:8080/bysj/department.ctl, 修改专业  079 \*/  080 @Override  081 protected void doPut(HttpServletRequest request, HttpServletResponse response)  082 throws ServletException, IOException {  083  084 String department\_json = JSONUtil.getJSON(request);  085 Department departmentToAdd = JSON.parseObject(department\_json, Department.class);  086  087  088 JSONObject message = new JSONObject();  089 try {  090 DepartmentService.getInstance().update(departmentToAdd);  091 message.put("message", "修改成功");  092 }catch (SQLException e){  093 message.put("message", "数据库操作异常");  094 e.printStackTrace();  095 }catch(Exception e){  096 message.put("message", "网络异常");  097 e.printStackTrace();  098 }  099 response.getWriter().println(message);  100 }  101  102 /\*\*  103 \* GET, http://49.234.109.117:8080/bysj/department.ctl?id=1, 查询id=1的专业  104 \* GET, http://49.234.109.117:8080/bysj/department.ctl, 查询所有的专业  105 \*/  106 @Override  107 protected void doGet(HttpServletRequest request, HttpServletResponse response)  108 throws ServletException, IOException {  109  110 String id\_str = request.getParameter("id");  111  112 JSONObject message = new JSONObject();  113 try {  114 if (id\_str == null) {  115 responseDepartments(response);  116 } else {  117 int id = Integer.parseInt(id\_str);  118 responseDepartment(id, response);  119 }  120 }catch (SQLException e){  121 message.put("message", "数据库操作异常");  122 e.printStackTrace();  123 response.getWriter().println(message);  124 }catch(Exception e){  125 message.put("message", "网络异常");  126 e.printStackTrace();  127 response.getWriter().println(message);  128 }  129 }  130 private void responseDepartment(int id, HttpServletResponse response)  131 throws ServletException, IOException, SQLException {  132 Department department = DepartmentService.getInstance().find(id);  133 String department\_json = JSON.toJSONString(department);  134  135 response.getWriter().println(department\_json);  136 }  137 private void responseDepartments(HttpServletResponse response)  138 throws ServletException, IOException, SQLException {  139 Collection<Department> departments = DepartmentService.getInstance().findAll();  140 String departments\_json = JSON.toJSONString(departments, SerializerFeature.DisableCircularReferenceDetect);  141 response.getWriter().println(departments\_json);  142 }  143 } |

**TeacherController类**

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| 001 package controller.teacher;  002  003 import com.alibaba.fastjson.JSON;  004 import com.alibaba.fastjson.JSONObject;  005 import com.alibaba.fastjson.serializer.SerializerFeature;  006 import domain.Teacher;  007 import service.TeacherService;  008 import util.JSONUtil;  009  010 import javax.servlet.ServletException;  011 import javax.servlet.annotation.WebServlet;  012 import javax.servlet.http.HttpServlet;  013 import javax.servlet.http.HttpServletRequest;  014 import javax.servlet.http.HttpServletResponse;  015 import java.io.IOException;  016 import java.sql.SQLException;  017 import java.util.Collection;  018  019 @WebServlet("/teacher.ctl")  020 public class TeacherController extends HttpServlet {  021 //请使用以下JSON测试增加功能  022 //{"name":"王五","title":{"id":1},"degree":{"id":3},"department":{"id":1}}  023 //请使用以下JSON测试修改功能  024 //{"name":"王五","id":2,"title":{"id":3},"degree":{"id":3},"department":{"id":1}}  025  026 /\*\*  027 \* POST, http://49.234.109.117:8080/bysj/teacher.ctl, 增加教师  028 \*/  029 @Override  030 protected void doPost(HttpServletRequest request, HttpServletResponse response)  031 throws ServletException, IOException {  032  033 String teacher\_json = JSONUtil.getJSON(request);  034  035 Teacher teacherToAdd = JSON.parseObject(teacher\_json, Teacher.class);  036  037  038  039 JSONObject message = new JSONObject();  040 try {  041 TeacherService.getInstance().add(teacherToAdd);  042 message.put("message", "增加成功");  043 }catch (SQLException e){  044 message.put("message", "数据库操作异常");  045 e.printStackTrace();  046  047 }catch(Exception e){  048 message.put("message", "网络异常");  049 e.printStackTrace();  050 }  051 response.getWriter().println(message);  052 }  053  054 /\*\*  055 \* DELETE, http://49.234.109.117:8080/bysj/teacher.ctl?id=1, 删除id=1的教师  056 \*/  057 @Override  058 protected void doDelete(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {  059 String id\_str = request.getParameter("id");  060 int id = Integer.parseInt(id\_str);  061  062  063 JSONObject message = new JSONObject();  064  065 try {  066 TeacherService.getInstance().delete(id);  067 message.put("message", "删除成功");  068 }catch (SQLException e){  069 message.put("message", "数据库操作异常");  070 e.printStackTrace();  071 }catch(Exception e){  072 message.put("message", "网络异常");  073 e.printStackTrace();  074 }  075 response.getWriter().println(message);  076 }  077  078  079 /\*\*  080 \* PUT, http://49.234.109.117:8080/bysj/teacher.ctl, 修改教师  081 \*/  082 @Override  083 protected void doPut(HttpServletRequest request, HttpServletResponse response)  084 throws ServletException, IOException {  085  086 String teacher\_json = JSONUtil.getJSON(request);  087 Teacher teacherToAdd = JSON.parseObject(teacher\_json, Teacher.class);  088  089  090 JSONObject message = new JSONObject();  091 try {  092 TeacherService.getInstance().update(teacherToAdd);  093 message.put("message", "修改成功");  094 }catch (SQLException e){  095 message.put("message", "数据库操作异常");  096 e.printStackTrace();  097 }catch(Exception e){  098 message.put("message", "网络异常");  099 e.printStackTrace();  100 }  101 response.getWriter().println(message);  102 }  103  104 /\*\*  105 \* GET, http://49.234.109.117:8080/bysj/teacher.ctl?id=1, 查询id=1的教师  106 \* GET, http://49.234.109.117:8080/bysj/teacher.ctl, 查询所有的教师  107 \*/  108 @Override  109 protected void doGet(HttpServletRequest request, HttpServletResponse response)  110 throws ServletException, IOException {  111  112 String id\_str = request.getParameter("id");  113  114 JSONObject message = new JSONObject();  115 try {  116 if (id\_str == null) {  117 responseTeachers(response);  118 } else {  119 int id = Integer.parseInt(id\_str);  120 responseTeacher(id, response);  121 }  122 }catch (SQLException e){  123 message.put("message", "数据库操作异常");  124 e.printStackTrace();  125 response.getWriter().println(message);  126 }catch(Exception e){  127 message.put("message", "网络异常");  128 e.printStackTrace();  129 response.getWriter().println(message);  130 }  131 }  132 private void responseTeacher(int id, HttpServletResponse response)  133 throws ServletException, IOException, SQLException {  134 Teacher teacher = TeacherService.getInstance().find(id);  135 String teacher\_json = JSON.toJSONString(teacher);  136  137 response.getWriter().println(teacher\_json);  138 }  139 private void responseTeachers(HttpServletResponse response)  140 throws ServletException, IOException, SQLException {  141 Collection<Teacher> teachers = TeacherService.getInstance().findAll();  142 String teachers\_json = JSON.toJSONString(teachers, SerializerFeature.DisableCircularReferenceDetect);  143  144 response.getWriter().println(teachers\_json);  145 }  146 } |

运行结果

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