

Servlet 数据库访问

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前言

Servlet 数据库访问之前，Java MySQL 连接设置相关驱动及配置。

测试数据

id	name	url	alexa	country
1	Google	https://www.google.cm/	1	USA
2	淘宝	https://www.taobao.com	13	CN
3	q	http://www.runoob.com	5892	
4	微博	http://weibo.com/	20	CN
5	Facebook	https://www.facebook.cc	3	USA

PL/SQL

复制代码

```
1  -- 创建表
2  CREATE TABLE `websites` (
3      `id` INT(11) NOT NULL AUTO_INCREMENT,
4      `name` CHAR(20) NOT NULL DEFAULT '' COMMENT '站点名称',
5      `url` VARCHAR(255) NOT NULL DEFAULT '' COMMENT '网址',
6      `alexa` INT(11) NOT NULL DEFAULT '0' COMMENT 'Alexa 排名',
7      `country` CHAR(10) NOT NULL DEFAULT '' COMMENT '国家',
8      PRIMARY KEY (`id`)
9  ) ENGINE=InnoDB DEFAULT CHARSET=utf8;
10
11 -- 插入数据
12 INSERT INTO `websites` (`name`, `url`, `alexa`, `country`) VALUES
13 ('Google', 'https://www.google.com/', 1, 'USA'),
14 ('淘宝', 'https://www.taobao.com/', 13, 'CN'),
15 ('q', 'http://www.runoob.com', 5892, ''),
16 ('微博', 'http://weibo.com/', 20, 'CN'),
17 ('Facebook', 'https://www.facebook.com/', 3, 'USA');
```

访问数据库

下面的实例演示了如何使用 Servlet 访问 RUNOOB 数据库。

```
1  package com.runoob.test;
2  import jakarta.servlet.ServletException;
3  import jakarta.servlet.annotation.WebServlet;
4  import jakarta.servlet.http.HttpServlet;
5  import jakarta.servlet.http.HttpServletRequest;
6  import jakarta.servlet.http.HttpServletResponse;
7
8  import java.io.IOException;
9  import java.io.PrintWriter;
10 import java.sql.*;
11
12 /**
13  * Servlet implementation class DatabaseAccess
14  */
15 @WebServlet("/DatabaseAccess")
16 public class DatabaseAccess extends HttpServlet {
17     private static final long serialVersionUID = 1L;
18     // JDBC 驱动名及数据库 URL
19     static final String JDBC_DRIVER = "com.mysql.jdbc.Driver";
20     static final String DB_URL = "jdbc:mysql://localhost:3306/RUN00B"
21
22     ;
23
24     // 数据库的用户名与密码，需要根据自己的设置
25     static final String USER = "root";
26     static final String PASS = "123456";
27
28     /**
29      * @see HttpServlet#HttpServlet()
30      */
31     public DatabaseAccess() {
32         super();
33         // TODO Auto-generated constructor stub
34     }
35
36     protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {
37         Connection conn = null;
38         Statement stmt = null;
39         // 设置响应内容类型
40         response.setContentType("text/html;charset=UTF-8");
41         PrintWriter out = response.getWriter();
42         String title = "Servlet Mysql 测试";
43         String docType = "<!DOCTYPE html>\n";
44         out.println(docType +
45             "<html>\n" +
```

```

44         "<head><title>" + title + "</title></head>\n" +
45         "<body bgcolor=\"#f0f0f0\">\n" +
46         "<h1 align=\"center\">" + title + "</h1>\n");
47     try{
48         // 注册 JDBC 驱动器
49         Class.forName("com.mysql.jdbc.Driver");
50
51         // 打开一个连接
52         conn = DriverManager.getConnection(DB_URL,USER,PASS);
53
54         // 执行 SQL 查询
55         stmt = conn.createStatement();
56         String sql;
57         sql = "SELECT id, name, url FROM websites";
58         ResultSet rs = stmt.executeQuery(sql);
59
60         // 展开结果集数据库
61         while(rs.next()){
62             // 通过字段检索
63             int id = rs.getInt("id");
64             String name = rs.getString("name");
65             String url = rs.getString("url");
66
67             // 输出数据
68             out.println("ID: " + id);
69             out.println(", 站点名称: " + name);
70             out.println(", 站点 URL: " + url);
71             out.println("<br />");
72         }
73         out.println("</body></html>");
74
75         // 完成后关闭
76         rs.close();
77         stmt.close();
78         conn.close();
79     } catch(SQLException se) {
80         // 处理 JDBC 错误
81         se.printStackTrace();
82     } catch(Exception e) {
83         // 处理 Class.forName 错误
84         e.printStackTrace();
85     } finally{
86         // 最后是用用于关闭资源的块
87         try{
88             if(stmt!=null)
89                 stmt.close();
90         }catch(SQLException se2){
91             }
92     }

```

```

92         try{
93             if(conn!=null)
94                 conn.close();
95             }catch(SQLException se){
96                 se.printStackTrace();
97             }
98         }
99     }
100 }
101
102 /**
103  * @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response)
104  */
105 protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {
106     // TODO Auto-generated method stub
107     doGet(request, response);
108 }
109 }

```

现在调用这个 Servlet，输入链接：<http://localhost:8080/Tomcat部署的项目名/DatabaseAccess>，将显示以下响应结果：

