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Examples

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# PAGINATION IN SERVLET AND JSP

11 May 2012 By Nithya Vasudevan 188,053 views 95 Comments

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## 1. Project Description

- This example explains how to write an application using Servlet and JSP which uses pagination to display the results.
- This application uses one table Employee and displays employee details to the user.
- We use Eclipse IDE for Java EE Developers and Apache Tomcat to run the Servlet and JSP.
- As a best practice, we use **Singleton** (for making database connection), **Data Access Object (DAO)**, **Transfer Object (TO)** and **Model View Controller (MVC)** patterns.

## 2. Environment Used

- JDK 6 (Java SE 6)
- Eclipse Indigo IDE for Java EE Developers (3.7.1)
- Apache Tomcat 6.x (To install Tomcat [refer this page](#))
- MySQL 5.5 (To install MySQL [refer this page](#))
- MySQL Connector/J 5.1 JAR file
- JSTL JAR file (jstl-1.2.jar)
- Java EE 5 API (Servlet 2.5, JSP 2.1, JSTL 1.2, Expression Language (EL))
- Java Database Connectivity (JDBC) API

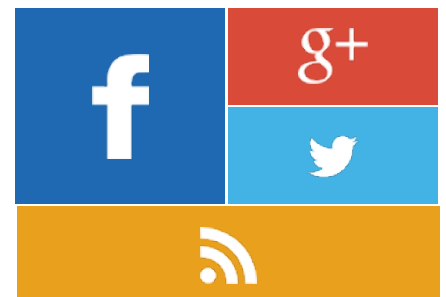
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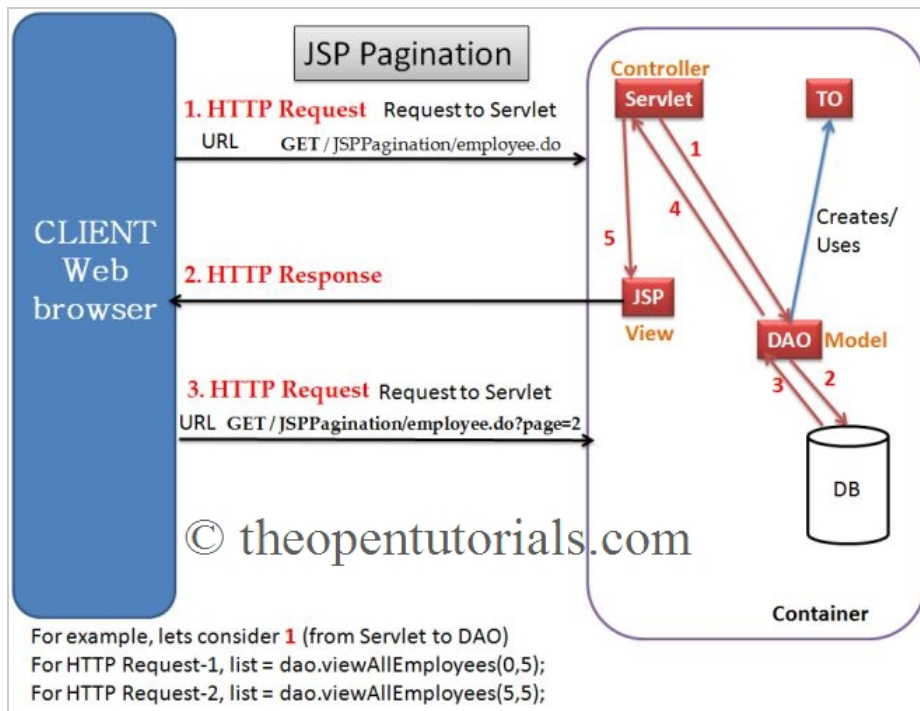
- [Optional] For monitoring and analyzing HTTP headers between the browser and web servers, you can use one of these add-ons of Firefox

- Live HTTP Headers
- HttpFox

### 3. Setting up development environment

If you are new to developing Servlet with Tomcat and Eclipse, you can [read this page](#) before proceeding with this example.

### 4. Program control flow



### 5. What is pagination?

- Fetching millions of records from database consumes almost all CPU power and memory of machine.
- Hence we break millions of records into small chunks showing limited number of records (say 20 or 30) per page. The best example of this is Google search pagination which allows user to navigate to next page by page number and explore limited records per pages.

#### 5.1. How to achieve pagination?

Pagination logic can be achieved in many ways, some are

##### 5.1.0.1. Method 1: Greedy approach


- Fetch all records at once and display it to the user after caching the results. This is known as greedy approach.
- This can be achieved by writing a DAO which returns a List<Object>. Whenever the user needs result, the sub list can be retrieved from the cached list instead of quering the database to fetch the next set of results when the user clicks "Next" link.
- Drawback of this approach is that since the data is being cached it becomes stale. If your application changes the data in the result set you may have to consider the accuracy of your results when you choose this solution.

##### 5.1.0.2. Method 2: Non-greedy approach


- Get range of records each time a user wants to see by limiting the number of rows in the ResultSet.
- What happens if you have more than millions of records? User may have to wait for a long time to get the results. Here, we limit the result set to fetch only number of records the user wants to see.


We use second method to demonstrate pagination.

### 6. Creating Database and table in MySQL



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This example uses one table Employee and the description of the table is shown below.

'Employee' table

Field	Type	Key	Extra
emp_id	int	Primary Key	auto_increment
emp_name	varchar(255)		
salary	double		
dept_name	varchar(255)		

- Open command prompt (Windows) or Terminal(Linux) and type

```
mysql -u [your-username] -p
```

and press enter and type the password.

- If you are using Windows, you can also use MySQL command line client which will be available in All programs menu.
- For creating a new database, [refer this page](#). In this example, the database name is 'exampledb'.
- After creating the database type the command "use <database\_name>;"
- For creating a new table, [refer this page](#). In this example, the table name is 'employee'
- Insert some records in the table. [Refer this page](#) for inserting rows using MySQL.

```
MySQL 5.5 Command Line Client
Enter password: ****
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 133
Server version: 5.5.15 MySQL Community Server (GPL)

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affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> use exampledb;
Database changed
mysql> desc employee;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| emp_id | int(11) | NO | PRI | NULL | auto_increment |
| emp_name | varchar(255) | NO | | NULL | |
| salary | double | NO | | NULL | |
| dept_name | varchar(255) | NO | | NULL | |
+-----+-----+-----+-----+-----+-----+
4 rows in set (0.01 sec)

mysql> select * from employee;
+-----+-----+-----+-----+
| emp_id | emp_name | salary | dept_name |
+-----+-----+-----+-----+
| 1 | John | 10000 | Development |
| 2 | Peter | 15000 | Testing |
| 3 | Abraham | 20000 | Administration |
| 4 | Ram | 35000 | Marketing |
| 5 | Diana | 40000 | Financial |
| 6 | Raj | 35000 | QA |
| 7 | Jennifer | 20000 | Sales |
| 8 | Jansi | 30000 | Purchase |
| 9 | Jenni | 60000 | Services |
| 10 | Sanjay | 35000 | Inventory |
| 11 | Yuvh | 32000 | Training |
| 12 | Jai | 38000 | Operational |
| 13 | Sita | 52000 | Legal |
| 14 | Vinay | 34000 | Insurance |
+-----+-----+-----+-----+
14 rows in set (0.00 sec)

mysql>
```

## 7. Creating Dynamic Web Project

- Open Eclipse IDE
- For writing Servlet and JSP, we need to create a new **Dynamic Web project**. Create this project and name it as "JSPPagination".

### 7.1. Download MySQL connector

- The connector can be downloaded from: <http://dev.mysql.com/downloads/connector/j/>.
- This tutorial uses 5.1 version. Unzip the connector to a safe location on your computer which contains MySQL Connector J JAR.

- Copy the MySQL Connector J JAR and paste it inside project's 'lib' folder.

## 7.2. Download JSTL JAR File

- JSTL JAR file can be downloaded from: <http://download.java.net/maven/1/jstl/jars/>
- This tutorial uses jstl-1.2.jar file.
- Copy the JAR file and paste it inside project's 'lib' folder.

## 7.3. Writing Transfer Object class

- In src folder, create a new package and name it as 'com.theopentutorials.to'. Create new class in this package as shown below.
- **Transfer Object** encapsulates business data. To implement this pattern, we write a class with properties defining the table attributes.

Employee.java class

```
01 package com.theopentutorials.to;
02
03 public class Employee {
04     private int employeeId;
05     private String employeeName;
06     private double salary;
07     private String deptName;
08
09     public int getEmployeeId() {
10         return employeeId;
11     }
12     public void setEmployeeId(int employeeId) {
13         this.employeeId = employeeId;
14     }
15     public String getEmployeeName() {
16         return employeeName;
17     }
18     public void setEmployeeName(String employeeName) {
19         this.employeeName = employeeName;
20     }
21     public double getSalary() {
22         return salary;
23     }
24     public void setSalary(double salary) {
25         this.salary = salary;
26     }
27     public String getDeptName() {
28         return deptName;
29     }
30     public void setDeptName(String deptName) {
31         this.deptName = deptName;
32     }
33 }
```

## 7.4. Writing Connection Factory class

Before writing DAO class, let's write a ConnectionFactory class which has database connection configuration statements and methods to make connection to the database. This class uses **singleton pattern**.

Create a new package in src folder and name it as com.theopentutorials.db and copy the following code.

ConnectionFactory.java

```

01 package com.theopentutorials.db;
02
03 import java.sql.Connection;
04 import java.sql.DriverManager;
05 import java.sql.SQLException;
06
07 public class ConnectionFactory {
08     //static reference to itself
09     private static ConnectionFactory instance =
10         new ConnectionFactory();
11     String url = "jdbc:mysql://localhost/EXAMPLEDB";
12     String user = "<YOUR_DATABASE_USERNAME>";
13     String password = "<YOUR_DATABASE_PASSWORD>";
14     String driverClass = "com.mysql.jdbc.Driver";
15
16     //private constructor
17     private ConnectionFactory() {
18         try {
19             Class.forName(driverClass);
20         } catch (ClassNotFoundException e) {
21             e.printStackTrace();
22         }
23     }
24
25     public static ConnectionFactory getInstance() {
26         return instance;
27     }
28
29     public Connection getConnection() throws SQLException,
30     ClassNotFoundException {
31         Connection connection =
32             DriverManager.getConnection(url, user, password);
33         return connection;
34     }
35 }

```

Fill the username and password for your database and enter your database name in the url string.

## 7.5. Writing DAO class

This class uses **Data Access Object (DAO) pattern** which encapsulates access to the data source.

**EmployeeDAO.java**

```

01 package com.theopentutorials.dao;
02
03 import java.sql.Connection;
04 import java.sql.ResultSet;
05 import java.sql.SQLException;
06 import java.sql.Statement;
07 import java.util.ArrayList;
08 import java.util.List;
09 import com.theopentutorials.db.ConnectionFactory;
10 import com.theopentutorials.to.Employee;
11
12 public class EmployeeDAO {
13     Connection connection;
14     Statement stmt;
15     private int noOfRecords;
16
17     public EmployeeDAO() { }
18
19     private static Connection getConnection()
20         throws SQLException,
21         ClassNotFoundException
22     {
23         Connection con = ConnectionFactory.
24             getInstance().getConnection();
25         return con;
26     }
27
28     public List<Employee> viewAllEmployees(
29         int offset,
30         int noOfRecords)
31     {
32         String query = "select SQL_CALC_FOUND_ROWS * from employee
33             + offset + ", " + noOfRecords;
34         List<Employee> list = new ArrayList<Employee>();
35         Employee employee = null;
36         try {
37             connection = getConnection();
38             stmt = connection.createStatement();
39             ResultSet rs = stmt.executeQuery(query);
40             while (rs.next()) {
41                 employee = new Employee();
42                 employee.setEmployeeId(rs.getInt("emp_id"));
43                 employee.setEmployeeName(rs.getString("emp_name"));
44                 employee.setSalary(rs.getDouble("salary"));
45                 employee.setDeptName(rs.getString("dept_name"));
46                 list.add(employee);
47             }
48             rs.close();
49
50             rs = stmt.executeQuery("SELECT FOUND_ROWS()");
51             if(rs.next())
52                 this.noOfRecords = rs.getInt(1);
53         } catch (SQLException e) {
54             e.printStackTrace();
55         } catch (ClassNotFoundException e) {
56             e.printStackTrace();
57         } finally
58         {
59             try {
60                 if(stmt != null)
61                     stmt.close();
62                 if(connection != null)
63                     connection.close();
64             } catch (SQLException e) {
65                 e.printStackTrace();
66             }
67         }
68         return list;
69     }
70
71     public int getNoOfRecords() {
72         return noOfRecords;
73     }
74 }

```

A SELECT statement may include a **LIMIT clause** to restrict the number of rows the server returns to the client. This LIMIT clause takes two arguments; The first argument specifies the offset of the first row to return, and the second specifies the maximum number of rows to return.

In some cases, it is desirable to know how many rows the statement would have returned without the LIMIT, but without running the statement again. To obtain this row count, include a



SQL\_CALC\_FOUND\_ROWS option in the SELECT statement, and then invoke FOUND\_ROWS() afterward:

## 7.6. Writing Servlet

```
01 package com.theopentutorials.servlets;
02
03 import java.io.IOException;
04 import java.util.List;
05 import javax.servlet.RequestDispatcher;
06 import javax.servlet.ServletException;
07 import javax.servlet.http.HttpServlet;
08 import javax.servlet.http.HttpServletRequest;
09 import javax.servlet.http.HttpServletResponse;
10 import com.theopentutorials.dao.EmployeeDAO;
11 import com.theopentutorials.to.Employee;
12
13 /**
14  * Servlet implementation class EmployeeServlet
15  */
16 public class EmployeeServlet extends HttpServlet {
17     private static final long serialVersionUID = 1L;
18
19     public EmployeeServlet() {
20         super();
21     }
22
23     public void doGet(HttpServletRequest request,
24         HttpServletResponse response)
25         throws ServletException, IOException {
26         int page = 1;
27         int recordsPerPage = 5;
28         if(request.getParameter("page") != null)
29             page = Integer.parseInt(request.getParameter("page"));
30         EmployeeDAO dao = new EmployeeDAO();
31         List<Employee> list = dao.viewAllEmployees((page-1)*recordsPerPage,
32             recordsPerPage);
33         int noOfRecords = dao.getNoOfRecords();
34         int noOfPages = (int) Math.ceil(noOfRecords * 1.0 / recordsPerPage);
35         request.setAttribute("employeeList", list);
36         request.setAttribute("noOfPages", noOfPages);
37         request.setAttribute("currentPage", page);
38         RequestDispatcher view = request.getRequestDispatcher("displayEmployee.jsp");
39         view.forward(request, response);
40     }
41 }
```

■ In Servlet, we are first getting the value of 'page' parameter and storing it in 'page' variable. We wanted to display five (5) records per page which we are passing as an argument to viewAllEmployees(offset, 5). We are storing three attributes in the request scope and forwarding the request to a JSP page (displayEmployee.jsp);

- Employee list available in 'list' variable
- Total number of pages available in 'noOfPages' variable
- Current page available in 'page' variable

## 7.7. Writing web.xml

```
01 <?xml version="1.0" encoding="UTF-8"?>
02 <web-app xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
03     xmlns="http://java.sun.com/xml/ns/javaee"
04     xmlns:web="http://java.sun.com/xml/ns/javaee/web-app_2_5.xsd"
05     xsi:schemaLocation="http://java.sun.com/xml/ns/javaee http://java.sun.com/xml/ns/javaee/web-app_2_5.xsd" id="WebApp_ID" version="2.5">
06     <display-name>JSPPagination</display-name>
07     <servlet>
08         <servlet-name>EmployeeServlet</servlet-name>
09         <servlet-class>com.theopentutorials.servlets.EmployeeServlet</servlet-class>
10     </servlet>
11     <servlet-mapping>
12         <servlet-name>EmployeeServlet</servlet-name>
13         <url-pattern>/employee.do</url-pattern>
14     </servlet-mapping>
15 </web-app>
```

## 7.8. Writing displayEmployee.jsp

This JSP page uses JSP Standard Tag Library (JSTL) along with Expression Language (EL). It retrieves the attributes from request scope and displays the result. To use JSTL libraries, you must include a `<taglib>` directive in your JSP page.

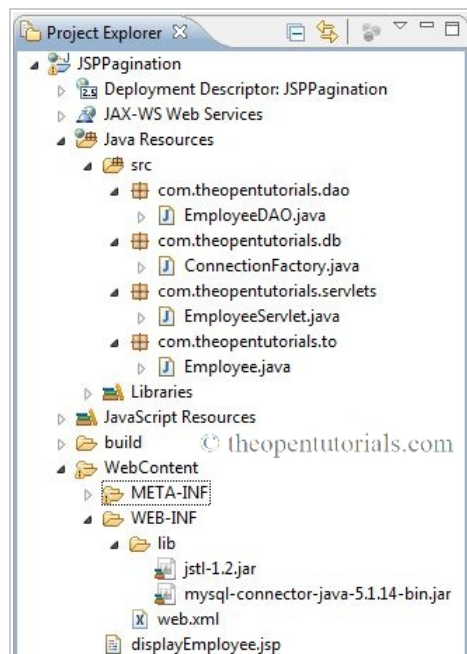
```
01 <%@ page language="java" contentType="text/html; charset=ISO-8859-1
02     pageEncoding="ISO-8859-1"%>
03 <%@ taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
04 <!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"
05     "http://www.w3.org/TR/html4/loose.dtd">
06 <html>
07 <head>
08 <meta http-equiv="Content-Type" content="text/html; charset=ISO-885
09 <title>Employees</title>
10 </head>
11 <body>
12     <table border="1" cellpadding="5" cellspacing="5">
13         <tr>
14             <th>Emp ID</th>
15             <th>Emp Name</th>
16             <th>Salary</th>
17             <th>Dept Name</th>
18         </tr>
19
20         <c:forEach var="employee" items="${employeeList}">
21             <tr>
22                 <td>${employee.employeeId}</td>
23                 <td>${employee.employeeName}</td>
24                 <td>${employee.salary}</td>
25                 <td>${employee.deptName}</td>
26             </tr>
27         </c:forEach>
28     </table>
29
30     <!--For displaying Previous link except for the 1st page -->
31     <c:if test="${currentPage != 1}">
32         <td><a href="employee.do?page=${currentPage - 1}">Previous</a>
33     </c:if>
34
35     <!--For displaying Page numbers.
36     The when condition does not display a link for the current page
37     <table border="1" cellpadding="5" cellspacing="5">
38         <tr>
39             <c:forEach begin="1" end="${noOfPages}" var="i">
40                 <c:choose>
41                     <c:when test="${currentPage eq i}">
42                         <td>${i}</td>
43                     </c:when>
44                     <c:otherwise>
45                         <td><a href="employee.do?page=${i}">${i}</a>
46                     </c:otherwise>
47                 </c:choose>
48             </c:forEach>
49         </tr>
50     </table>
51
52     <!--For displaying Next link -->
53     <c:if test="${currentPage lt noOfPages}">
54         <td><a href="employee.do?page=${currentPage + 1}">Next</a>
55     </c:if>
56
57 </body>
58 </html>
```

First 'table' tag displays list of employees with their details. Second 'table' tag displays the page numbers.

## 7.9. Folder Structure

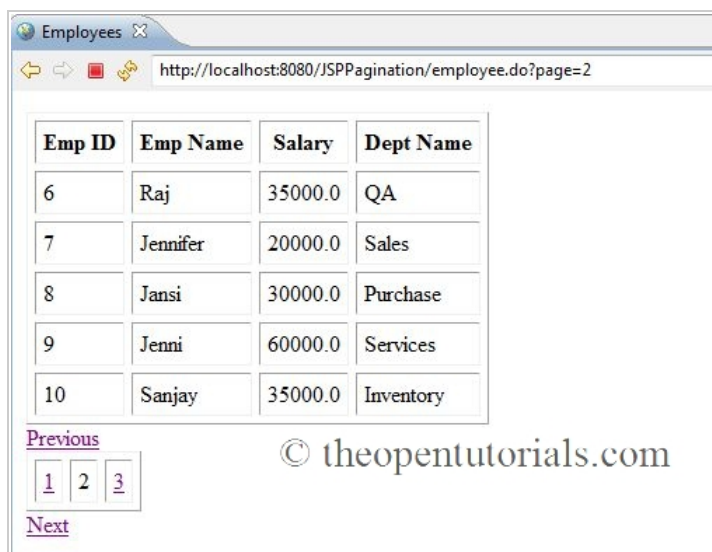
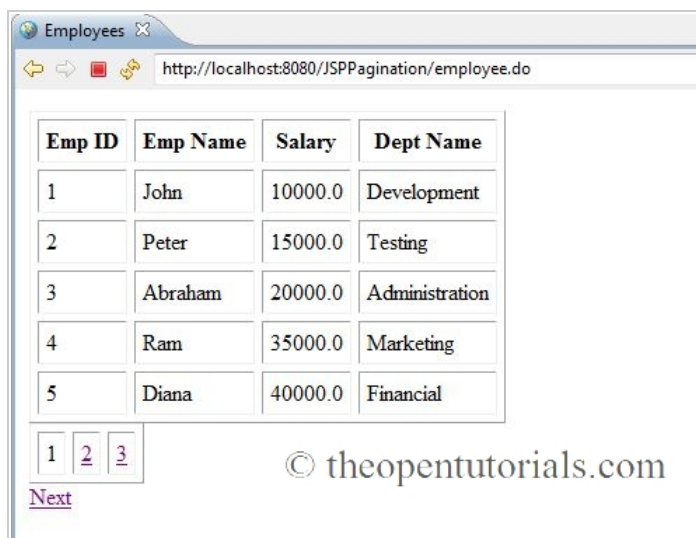
The complete folder structure of this example is shown below.





## 8. Output

Use Ctrl + F11 in Eclipse to run the Servlet. The URL for requesting the Servlet is <http://localhost:8080/JSPPagination/employee.do>



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**Naveed Ali** • 3 years ago

Great Job!!!!!!

Thank you sOOOOOO much.

i have one question that is why we invoke `stmt.executeQuery(FOUND_ROWS())` to get the total no. of records. can't we get total no of records from the first `stmt.executeQuery()` that we invoke earlier.

15 [^](#) [v](#) [Reply](#) [Share](#)



**shyam** • 4 years ago

Hi Nitya, Thank You so much for your good Explanation. I am facing problem with indexing. I am fetching large amount of data and number of pages are 200.

all the page numbers are displaying in main jsp page itself without Next button. It means 1 2 3 4 5 ----- 200 Next. But i want to display 1 2 3 4 5 6 7 8 9 10 then next.

So can you please suggest.

10 [^](#) [v](#) [Reply](#) [Share](#)



**Swetha** • 3 years ago

Awesome work.. explaining step by step procedure.. but i am not able to get the results. It gives the requested resource is not available. I dono where there is a problem. I would be greatful if you help me. Thank you.

6 [^](#) [v](#) [Reply](#) [Share](#)



**Ranjit** • 4 years ago

Your tutorial is very good..but i am getting problem that below table it does not shows the pagination numbers like 1 2 3 and also does not shows the prev and next link..

One more issue is that can you please tell the query of limit in oracle..

please give reply early as possible..

Thanks in advance.

5 [^](#) [v](#) [Reply](#) [Share](#)



**Rajendra** • 2 years ago


Hi i'm not getting the results pls help ...i hav uploaded the screen shots





10 [^](#) [v](#) [Reply](#) [Share](#)

**Pradeep Gowda** [→](#) Rajendra • a month ago


 some where you are missing database name or something mis match happening  
^ | v · Reply · Share ›


 **hemu** · 3 years ago  
very nice...thnx  
i want to use dynamic drop down box in employee table like..  
5  
10  
15  
20  
30  
40  
50  
how can i use...pls help me  
4 ^ | v · Reply · Share ›

 **Amol Bhawe** · 3 years ago  
Could you please add the code if user want to sort list by employee's first name or last Name, or department name or based on salary?  
3 ^ | v · Reply · Share ›

 **Srikanth Sri** · 3 years ago  
Good Job. Very useful article. My problem is I want to show only 4-5 page numbers at any given point of time becoz sometimes there may be many number of pages ...any help?  
2 ^ | v · Reply · Share ›

 **pawan kumar** · 3 years ago  
i have an error in jsp page in same example  
  
javax.servlet.ServletException: javax/el/ValueExpression  
org.apache.jasper.servlet.JspServlet.service([JspServlet.java:267](#))  
javax.servlet.http.HttpServlet.service([HttpServlet.java:729](#))  
com.theopentutorials.servlets.EmployeeServlet.doGet([EmployeeServlet.java:39](#))  
javax.servlet.http.HttpServlet.service([HttpServlet.java:627](#))  
javax.servlet.http.HttpServlet.service([HttpServlet.java:729](#))  
  
can you plz explain how can we remove it...plz  
2 ^ | v · Reply · Share ›

 **umesh** · 2 years ago  
what is the tomcat version and eclipse on which u tried?  
  
bcz I'm getting below exception  
(server tomcat 6.0)  
SEVERE: Parse error in application web.xml file at jndi:/localhost/JSPPagination/WEB-INF/web.xml  
  
org.xml.sax.SAXParseException; systemId: jndi:/localhost/JSPPagination/WEB-INF/web.xml;  
lineNumber: 16; columnNumber: 21; Error at (16, 21: Invalid <url-pattern> [Employee.do](#) in servlet  
mapping  
  
at org.apache.tomcat.util.digester.Digester.createSAXException([Digester.java:2806](#))  
  
at org.apache.tomcat.util.digester.Digester.createSAXException([Digester.java:2832](#))  
1 ^ | v · Reply · Share ›

 **sandy** · 3 years ago  
I get this error. I followed the same procedure you mentioned.  
  
HTTP Status 500 - The absolute uri: <http://java.sun.com/jsp/jstl/c...> cannot be resolved in either  
web.xml or the jar files deployed with this application  
  
-----  
  
type Exception report  
  
message The absolute uri: <http://java.sun.com/jsp/jstl/c...> cannot be resolved in either web.xml or the  
jar files deployed with this application  
  
description The server encountered an internal error that prevented it from fulfilling this request.  
  
exception  
  
org.apache.jasper.JasperException: The absolute uri: <http://java.sun.com/jsp/jstl/c...> cannot be resolved  
in either web.xml or the jar files deployed with this application  
org.apache.jasper.compiler.DefaultErrorHandler.isError([DefaultErrorHandler.java:56](#))

org.apache.jasper.compiler.ErrorDispatcher.dispatch(ErrorDispatcher.java:445)

see more

1 ^ [v] • Reply • Share ›



**Ashutosh** • 3 years ago

Thanks for explanation.

I have also uploaded jsp paging logic source code on following link. <https://sourceforge.net/projec...>

Please refer as it may help you

1 ^ [v] • Reply • Share ›



**Bharat** • 3 years ago

Hi,  
Have you got solution for your query?

1 ^ [v] • Reply • Share ›



**tviem** • 3 years ago

How to create Filter function from this example pagination? Thank you.

1 ^ [v] • Reply • Share ›



**Mudassir** • 3 years ago

Really helpful. Thanks.

1 ^ [v] • Reply • Share ›



**Nitin** • 3 years ago

really good explanation !  
nice work !!

1 ^ [v] • Reply • Share ›



**Pooja** • 3 years ago

Also, Its good if you can suggest, similar syntax in SqlServer 2008 for SQL\_CALC\_FOUND\_ROWS.

1 ^ [v] • Reply • Share ›



**sachindra** • 18 days ago

How can I repalce String query = "select SQL\_CALC\_FOUND\_ROWS \* from employee limit "  
+ offset + ", " + noOfRecords; What would be the Sql statement if we use oracle 10 g database,  
because "limit" is not working in oracle 10 g ??

^ [v] • Reply • Share ›



**Pradeep Gowda** • a month ago

explain me how we get page numbers

^ [v] • Reply • Share ›



**Pradeep Gowda** • a month ago

actually i want to do in struts2  
if(request.getParameter("page") != null)  
page = Integer.parseInt(request.getParameter("page")); where you given request parameter to accept  
in servlet

^ [v] • Reply • Share ›



**Yatin Patel** • 9 months ago

Hay very nc totorial... i learn a lot through it thank you But i have a problem the error IS :

.PropertyNotFoundException: Property 'employee.employeeId' not readable on type Employee

^ [v] • Reply • Share ›



**Milan Gajera** • a year ago

What i need to put in href of previous so than i can found my next data after click on prvious

error msg is requested resource is not available

^ [v] • Reply • Share ›



**Bhushan Khopade** • a year ago

Thanks

but there is small change  
in

[EmployeeServlet.java](#)

there is no page=1

please use there  
page=2

^ [v] • Reply • Share ›



**prasanna babu R** • 2 years ago

awsome work...very kind of you

^ [v] • Reply • Share ›



**Ali Alihandro** • 2 years ago

Amazing, dude! Big thanks!

^ [v] • Reply • Share ›



**chadaram vamsi** • 2 years ago

If i have 100 pages of date how can i display that page numbers up to only because it not good to 100 page numbers in jsp page

^ [v] • Reply • Share ›



**Thanan** • 2 years ago

Great ... Thanks Pal

^ [v] • Reply • Share ›



**Mr Lewis** • 3 years ago

Worked like a charm...!! Thank you for unselfishly posting :)

^ [v] • Reply • Share ›



**mrunal** • 3 years ago

Hello ,,

Thanks for the tutorial , I want to show all records field as well on my jsp page , Will you please tell me how to do that?

Thanks.

^ [v] • Reply • Share ›



**Hung Anh** • 3 years ago

Man thanks a lot your code and comments are really easy to understand. Nice work man!

^ [v] • Reply • Share ›



**Har** • 3 years ago

Best in class

^ [v] • Reply • Share ›



**dj** • 3 years ago

Thanks..... Infonya Sangan membantu Banget.

^ [v] • Reply • Share ›



**Igor** • 3 years ago

Hello Nithya.

It is one of the most detailed and elegant explanation I've ever found. Cool and awesome! Right from this moment I am getting the fan of your blog and your teaching style.

With regards,

Igor Orlov

^ [v] • Reply • Share ›



**Nikunj** • 3 years ago

It is too good for beginners .

Thanks a lot.

^ [v] • Reply • Share ›



**rizwan** • 3 years ago

Excellent example for the beginners in a simple and easy to understand way

Please keep sending good posts like this

^ [v] • Reply • Share ›



**KARAN** • 3 years ago

I am using oracle XE .Can any one suggest me the query for oracle ??

^ [v] • Reply • Share ›



**sarir** • 3 years ago

Thanks sir,you saved me lot of time and i really must say hatsoff...Doing really awesome work.....

^ | v • Reply • Share ›



**shivdeep** • 3 years ago

hi,

i m facing a problem while fetching my results form db...m not able to display my fields retrived from DB in my table.whwn i run my project it shows me the following error:

HTTP Status 404 - /JSPPagination/

type Status report

message /JSPPagination/

description The requested resource (/JSPPagination/) is not available.

m not able to find the error .pls help me ....

Thx

Shivdeep

^ | v • Reply • Share ›



**Gahininath** • 3 years ago

I execute code same as above but it gives following error..

```
java.sql.SQLException: You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near '-10, 5' at line 1
at com.mysql.jdbc.MySQLIO.checkErrorPacket(MySQLIO.java:2851)
at com.mysql.jdbc.MySQLIO.sendCommand(MySQLIO.java:1534)
at com.mysql.jdbc.MySQLIO.sqlQueryDirect(MySQLIO.java:1625)
at com.mysql.jdbc.Connection.execSQL(Connection.java:2291)
at com.mysql.jdbc.Connection.execSQL(Connection.java:2226)
at com.mysql.jdbc.Statement.executeQuery(Statement.java:1159)
at com.dao.EmployeeDAO.viewAllEmployees(EmployeeDAO.java:43)
at com.servlet.EmployeeServlet.doGet(EmployeeServlet.java:34)
at javax.servlet.http.HttpServlet.service(HttpServlet.java:689)
at javax.servlet.http.HttpServlet.service(HttpServlet.java:802)
at org.apache.catalina.core.ApplicationFilterChain.internalDoFilter(ApplicationFilterChain.java:270)
at org.apache.catalina.core.ApplicationFilterChain.doFilter(ApplicationFilterChain.java:191)
at org.apache.catalina.core.StandardWrapperValve.invoke(StandardWrapperValve.java:227)
at org.apache.catalina.core.StandardContextValve.invoke(StandardContextValve.java:174)
at org.apache.catalina.core.StandardHostValve.invoke(StandardHostValve.java:127)
at org.apache.catalina.valves.ErrorReportValve.invoke(ErrorReportValve.java:104)
at org.apache.catalina.core.StandardEngineValve.invoke(StandardEngineValve.java:108)
at org.apache.catalina.connector.CoyoteAdapter.service(CoyoteAdapter.java:211)
at org.apache.coyote.http11.Http11Processor.process(Http11Processor.java:817)
at
org.apache.coyote.http11.Http11Protocol$Http11ConnectionHandler.process(Http11Protocol.java:623)
at org.apache.tomcat.util.net.JIoEndpoint$Worker.run(JIoEndpoint.java:444)
at java.lang.Thread.run(Unknown Source)
```

^ | v • Reply • Share ›



**Jerry Rogersome** • 3 years ago

So, if I understand your example, you are storing a subset of the entire results of the query in a List of employees? Then feeding that to the jsp to display on the front end?

^ | v • Reply • Share ›



**Lalit** • 3 years ago

Very good Example with nice explnation.Keep it up.....

^ | v • Reply • Share ›



**Nikhil** • 3 years ago

nice tutorial.....Java lovers needs it.Thank You

^ | v • Reply • Share ›



**Lijo** • 3 years ago

Very good tutorial you saved me..Thanks a lot.

^ | v • Reply • Share ›



**Pooja** • 3 years ago

Hi Nithya, Thanks for giving example. It is very well described. But I'm facing one problem.

Actually, I'm using SqlServer 2008 instead of MySql, So I configured every thing properly, still when I run it, I get only Table header with a Previous hyperlink at bottom (No data, no next link), It seemed some problem with quervina from Db. I tried to debug. but for 1st time request debug is not reaching even in

problem that querying from 2nd table to 3rd, server returns request along with returning servlet, then I click on previous, and debug reaches and transaction fails with saying :-

com.microsoft.sqlserver.jdbc.SQLServerException: The TCP/IP connection to the host localhost/Exercise, port 1433 has failed. Error: "null. Verify the connection properties. Make sure that an instance of SQL Server is running on the host and accepting TCP/IP connections at the port. Make sure that TCP connections to the port are not blocked by a firewall."

at  
com.microsoft.sqlserver.jdbc.SQLServerException.makeFromDriverError([SQLServerException.java](#):19)  
at  
com.microsoft.sqlserver.jdbc.SQLServerException.ConvertConnectExceptionToSQLServerException([SQLServerException.java](#):100)  
at com.microsoft.sqlserver.jdbc.SocketFinder.findSocket([IOBuffer.java](#):2243)  
at com.microsoft.sqlserver.jdbc.TDSChannel.open([IOBuffer.java](#):491)  
at  
com.microsoft.sqlserver.jdbc.SQLServerConnection.connectHelper([SQLServerConnection.java](#):1309)

see more

^ | v • Reply • Share ›



**Ashiwn** • 3 years ago

Hi, How to i do pagination via oracle where first query will execute and then i want count of result of that query?

simply i want to ask how to i do pagination in jsp via oracle? can any known ple send me code or idea ,suggestion it will appreciated highly....Thanks in advnace

^ | v • Reply • Share ›



**Nithya Vasudevan** → **Ashiwn** • 3 years ago

Use this link to setup [JDBC Oracle connection](#)

SQL\_CALC\_FOUND\_ROWS works only in MySQL. There may be other alternatives in Oracle server. If not you can use count() to get the total rows instead of SQL\_CALC\_FOUND\_ROWS and FOUND\_ROWS().

^ | v • Reply • Share ›



**Saurabh** • 3 years ago

i am using sql server in that this in dao i have wright a query

select SQL\_CALC\_FOUND\_ROWS CANDIDATEID, TESTNO, CREATED\_ON,  
ACTIVATION\_STATUS from CANDIDATE\_LOGIN limit" + offset + ", " + noOfRecords);

but it is not working and giving error "Incorrect syntax near '5'" can you please help me on this?

^ | v • Reply • Share ›



**Praveen Macherla** → **Saurabh** • 3 years ago

SQL\_CALC\_FOUND\_ROWS works only in MySQL. There may be other alternatives in SQL server. If not you can use count() to get the total rows instead of SQL\_CALC\_FOUND\_ROWS and FOUND\_ROWS()

^ | v • Reply • Share ›



**muni** • 4 years ago

how to set the no of records per page

very good explanation

thank you

^ | v • Reply • Share ›

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June 2016

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