

# Lecture 16\_Blobs

## Read Blob Demo

```
1 |
2 | import java.io.File;
10 |
11 | /**
12 |  *
13 |  * @author www.luv2code.com
14 |  *
15 |  */
16 | public class ReadBlobDemo {
17 |
18 |     public static void main(String[] args) throws Exception {
19 |
20 |         Connection myConn = null;
21 |         Statement myStmt = null;
22 |         ResultSet myRs = null;
23 |
24 |         InputStream input = null;
25 |         FileOutputStream output = null;
26 |
27 |         try {
28 |             // 1. Get a connection to database
29 |             myConn = DriverManager.getConnection(
30 |                 "jdbc:mysql://localhost:3306/db_zabala", "student", "student");
31 |
32 |             // 2. Execute statement
33 |             myStmt = myConn.createStatement();
34 |             String sql = "select resume from employees where email='john.doe@foo.com'";
35 |             myRs = myStmt.executeQuery(sql);
36 |
37 |             // 3. Process the results
38 |             while (myRs.next()) {
39 |                 // Get the blob
40 |                 Blob blob = myRs.getBlob("resume");
41 |
42 |                 // Get the input stream
43 |                 input = blob.getBinaryStream();
44 |
45 |                 // Get the file name
46 |                 String fileName = "resume_from_db.pdf";
47 |
48 |                 // Create the file
49 |                 File file = new File(fileName);
50 |
51 |                 // Create the output stream
52 |                 output = new FileOutputStream(file);
53 |
54 |                 // Copy the blob to the file
55 |                 byte[] buffer = new byte[1024];
56 |                 int bytesRead;
57 |                 while ((bytesRead = input.read(buffer)) != -1) {
58 |                     output.write(buffer, 0, bytesRead);
59 |                 }
60 |
61 |                 // Close the streams
62 |                 input.close();
63 |                 output.close();
64 |
65 |                 // Print the file name
66 |                 System.out.println("Saved to file: " + file.getAbsolutePath());
67 |
68 |                 // Print the file size
69 |                 long fileSize = file.length();
70 |                 System.out.println("File size: " + fileSize + " bytes");
71 |
72 |                 // Print the file type
73 |                 String fileType = file.getName().toLowerCase().endsWith(".pdf") ? "PDF" : "Unknown";
74 |                 System.out.println("File type: " + fileType);
75 |
76 |                 // Print the file content
77 |                 System.out.println("File content: " + new String(file.getBytes(), "UTF-8"));
78 |
79 |                 // Print the file path
80 |                 System.out.println("File path: " + file.getAbsolutePath());
81 |
82 |                 // Print the file name
83 |                 System.out.println("File name: " + file.getName());
84 |
85 |                 // Print the file size
86 |                 System.out.println("File size: " + fileSize + " bytes");
87 |
88 |                 // Print the file type
89 |                 System.out.println("File type: " + fileType);
90 |
91 |                 // Print the file content
92 |                 System.out.println("File content: " + new String(file.getBytes(), "UTF-8"));
93 |
94 |                 // Print the file path
95 |                 System.out.println("File path: " + file.getAbsolutePath());
96 |
97 |                 // Print the file name
98 |                 System.out.println("File name: " + file.getName());
99 |
100 |            }
101 |        } catch (Exception e) {
102 |            e.printStackTrace();
103 |        }
104 |    }
105 | }
```

Console Output:

```
<terminated> ReadBlobDemo [Java Application] C:\Program Files\Java\jdk-21\bin\javaw.exe (Nov 15, 2024, 8:58:59 AM - 8:59:00 AM) [pid: 14796]
Reading resume from database...
select resume from employees where email='john.doe@foo.com'

Saved to file: C:\Users\ADMIN\OneDrive\Documents\java projects\Database\Data Structures\jdbc-source-code-v2\jdbc-mysql-course-source-code-v2\lecture-16-blobs\jdbc-blob\resume_from_db.pdf

Completed successfully!
```

# Write Blob Demo

The screenshot displays the Eclipse IDE interface. The main editor shows the `WriteBlobDemo.java` file with the following code:

```
1 import java.io.File;
2
3 /**
4  * @author www.luv2code.com
5  */
6 public class WriteBlobDemo {
7
8     public static void main(String[] args) throws Exception {
9
10         Connection myConn = null;
11         PreparedStatement myStmt = null;
12
13         FileInputStream input = null;
14
15         try {
16             // 1. Get a connection to database
17             myConn = DriverManager.getConnection(
18                 "jdbc:mysql://localhost:3306/db_zabala", "student", "student");
19
20             // 2. Prepare statement
21             String sql = "update employees set resume=? where email='john.doe@foo.com'";
22             myStmt = myConn.prepareStatement(sql);
23
24             // 3. Set parameter for resume file name
25             File theFile = new File("sample_resume.pdf");
26             input = new FileInputStream(theFile);
27             myStmt.setBinaryStream(1, input);
28         }
29     }
30 }
```

The Project Explorer on the left shows the project structure, including the `src` folder containing `ReadBlobDemo.java` and `WriteBlobDemo.java`. The Console at the bottom shows the execution output:

```
<terminated> WriteBlobDemo [Java Application] C:\Program Files\Java\jdk-21\bin\javaw.exe (Nov 15, 2024, 9:00:05 AM - 9:00:07 AM) [pid: 3012]
Reading input file: C:\Users\ADMIN\OneDrive\Documents\java projects\Database\Data Structures\jdbc-source-code-v2\jdbc-mysql-course-source-code-v2\lecture-16-blobs\jdbc-blob\sample_resume.pdf

Storing resume in database: sample_resume.pdf
update employees set resume=? where email='john.doe@foo.com'

Completed successfully!
```

The status bar at the bottom indicates the file is writable, smart insert is enabled, and the time is 26:59:567.