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CLOBs and BLOBs

JDBC

informationssysteme htl-wels

Übersicht ➡ Was lernen wir?



- › Blobs
- › Beispiele
- › Aufgabe



Datentypen

Blob (und Text) Varianten in MySQL		
Typ		Maximale Größe
TINYBLOB	TINYTEXT	2^8-1 (255)
BLOB	TEXT	$2^{16}-1$ (65535)
MEDIUMBLOB	MEDIUMTEXT	$2^{24}-1$ (16777215)
LOB	LONGTEXT	$2^{32}-1$ (4294967295)

Create table with blob column

› Tabelle mit 3 Spalten.

1. Beschreibung des Bildes
2. Bildformat (".jpg", ".gif", ".png" etc.)
3. Binärdaten des Bildes im Datentyp Blob

```
Statement stmt = connection.createStatement();
```

```
String createString = "create table urlaub2001 (description  
VARCHAR(255), imagetype VARCHAR(8), image BLOB)";
```

```
stmt.executeUpdate(createString);
```

Insert binary data in table

```
String pSql="insert into URLAUBS_PHOTOS_2016 values(?,?,?)";
```

PreparedStatement

```
setBinaryStream(int parameterIndex, InputStream x)
```

Sets the designated parameter to the given input stream.

```
setBinaryStream(int parameterIndex, InputStream x, int length)
```

Sets the designated parameter to the given input stream, which will have the specified number of bytes.

```
setBinaryStream(int parameterIndex, InputStream x, long length)
```

Sets the designated parameter to the given input stream, which will have the specified number of bytes.

```
setBlob(int parameterIndex, Blob x)
```

Sets the designated parameter to the given `java.sql.Blob` object.

```
setBlob(int parameterIndex, InputStream inputStream)
```

Sets the designated parameter to a `InputStream` object.

```
setBlob(int parameterIndex, InputStream inputStream, long length)
```

Sets the designated parameter to a `InputStream` object.

Insert binary data in table

```
// ersten Parameter setzen

pStmt.setString( 1, "Der Traunstein");

// zweiten Parameter setzen

pStmt.setString( 2, ".jpg");

// der Methode setBinaryStream() die Bilddaten von der Platte geben

InputStream photoStream = new BufferedInputStream( new
FileInputStream(pathToImage));

pStmt.setBinaryStream( 3, photoStream, photoStream.available() ); //
Statement abschicken

pStmt.execute();
```

Retrieving Binary Data

```
while (rs.next()) {  
    InputStream input = rs.getBinaryStream("image");  
    .....  
}
```

Storing blob into a database

```
PreparedStatement pstmt = con.prepareStatement("INSERT  
INTO MyTableVALUES(?, ?)");
```

```
pstmt.setString(1, "sample image");
```

```
//Inserting Blob type
```

```
InputStream in = new FileInputStream("E:\\images\\cat.jpg");
```

```
pstmt.setBlob(2, in);
```


Retrieving blob from database

```
while (rs.next()) {  
    java.sql.Blob blob = rs.getBlob("image");  
    InputStream inputStream = blob.getBinaryStream();  
}
```

Aufgabe



- › Ergänze die Moviedatenbank um eine Binärdatei (z.B.: Filmplakat oder sogar den Trailer).
- › Erstelle eine Methode um die Binärdatei wieder auszulesen.