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| Metadata  |   |
| Database Connectivity and Access  |   |
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| Metadata  |   |
| Metadata  Data about data  Column meanings  |   |
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| Metadata  Data about data Column meanings Constraints Number of columns or rows in table/result etc.  Why is this useful? |   |

### Result Metadata In JDBC, ResultSetMetadata In .Net, part of Reader (mostly) Provides information about query results Column count Column names Column datatypes Restrictions on data

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# Exploration of Metadata APIs Java C# PHP

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## Java ResultSetMetadata API ResultSet rs = stmnt.executeQuery("SELECT..."); ResultSetMetaData rsmd = rs.getMetaData(); int numCols = rsmd.getColumnCount(); Returns the number of columns String name = rsmd.getColumnName(i); Name of column i String tblName = rsmd.getTableName(i); Gets the column's table name

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## C# Metadata API MySqlDataReader rdr = cmd.ExecuteReader(); int numCols = rdr.FieldCount; String name = rdr.GetName(i);

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### PHP Metadata API

```
$rs = $conn->query($sql);
$numCols = $rs->columnCount();
$columns= $rs->fetch(PDO::FETCH_ASSOC);
foreach($columns as $field_name=>$value) {
    $name = $field_name;
}
```

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