

# SAP HANA Tips & Tricks

## External connection to SAP HANA DB

Viktor Dmitriyev

[viktor.dmitriyev@uni-oldenburg.de](mailto:viktor.dmitriyev@uni-oldenburg.de)

Very Large Business Applications  
University of Oldenburg

July 26, 2013

# Agenda

## Java & JDBC

Connecting to SAP HANA database from JAVA  
Demo for JDBC usage

## Python & ODBC

Connecting to SAP HANA database from Python  
Demo for ODBC usage

## MS Excel & ODBO

Connecting to SAP HANA database from MS Excel  
Demo for ODBO usage

github link to demos

# Connecting to SAP HANA database from JAVA

---

Connecting from Java to the SAP HANA DB:

- ▶ Prepare working environment:
  - ▶ Install Java JDK (latest version).
  - ▶ Set 'CLASSPATH' to the driver provided by SAP  
(*can be extracted from publicly available SAP HANA client*)
- ▶ General algorithm:
  - ▶ Connecting: Create java connection object with correct credentials
  - ▶ Pre-processing: Create prepared statement for sql
  - ▶ Running: Execute query and fetch result
  - ▶ Releasing: Close prepared statement and connection to database

# Demo for JDBC usage

How to run demo example:

- ▶ Start from reading 'README.md'
  - ▶ For 'Windows': run 'run\_win.bat'
  - ▶ For 'Linux': run './run\_linux' in terminal

# Connecting to SAP HANA database from Python

---

Connecting from Python to the SAP HANA DB:

- ▶ Multiple options are available:
  - ▶ Option #1: Using external ODBC driver (ex: pyodbc)
  - ▶ Option #2: Using build-in SAP HANA client (dbapi)

# Demo for python usage

How to run demo example:

- ▶ Start from reading 'README.md'
- ▶ To run option #1: 'run\_win\_option\_01.bat'
- ▶ To run option #2: 'run\_win\_option\_02.bat'
- ▶ Compare result of outputs from both options

# Connecting to SAP HANA database from MS Excel

---

Connecting from MS Excel to the SAP HANA DB:

- ▶ Most popular BI tool
- ▶ Uses MDX 32bit driver (cubes)

# Demo for usage

How to run demo example:

- ▶ Start from reading 'sap-hana-tips-excel.pdf'
- ▶ Prepare SAP HANA instance (create analytical views)
- ▶ Open MS Excel
- ▶ Retrieve data



Thank you for attention!

Any questions?