

# **Data Analysis and Integration**

# Software installation guide

Installation instructions are provided for Windows, Ubuntu, and Mac OS.

#### Java

The software requires Java, preferably a 64-bit version of Oracle JRE 8.

- On Windows, download and install Java from here: https://java.com/en/download/manual.jsp
- On Ubuntu, install Java with the following commands:
  - o sudo add-apt-repository ppa:webupd8team/java
  - o sudo apt update
  - o sudo apt install oracle-java8-installer
- On Mac OS, check your Java version on a Terminal with:
  - o java -version
  - o if your version does not match the requirements, download and install Java from here: https://java.com/en/download/manual.jsp

# MySQL

- On Windows, download and install MySQL from here: https://dev.mysql.com/downloads/mysql/
- On Ubuntu, install MySQL with the following command:
  - o sudo apt install mysql-server
- On Mac OS, download and install MySQL from here: https://dev.mysql.com/downloads/mysql/

During installation, you will be asked to set your root password for MySQL.

### Creating a MySQL user

- Open a terminal or command-line window and execute:
  - o mysql -u root -p
  - o Provide your root password to login to mysql.
- On the MySQL prompt, execute the following commands:
  - CREATE USER 'aid'@'localhost' IDENTIFIED BY 'aid';
  - o GRANT ALL PRIVILEGES ON \*.\* TO 'aid'@'localhost';

From now on, you should connect to MySQL with user aid and password aid.

# **Pentaho Data Integration**

- Download the latest version of Pentaho Data Integration (PDI) from here: <a href="https://sourceforge.net/projects/pentaho/files/Data%20Integration/">https://sourceforge.net/projects/pentaho/files/Data%20Integration/</a>
- In your home directory, create a new folder called "Pentaho".
- Unzip PDI to the "Pentaho" folder. A sub-directory called "data-integration" will be created.
- On Ubuntu, install the following additional package: sudo apt install libwebkitgtk-1.0-0

# MySQL driver

- Download the MySQL JDBC driver from here: https://dev.mysql.com/downloads/connector/j/
- Unzip the file to the "Pentaho" folder.
- Copy the JAR file (mysql-connector-java-x.x.xx-bin.jar) to the folder: Pentaho/data-integration/lib/

#### **DataCleaner**

- Download the latest version of DataCleaner from here:
  <a href="https://sourceforge.net/projects/datacleaner/files/datacleaner%20%28stable%29/">https://sourceforge.net/projects/datacleaner/files/datacleaner%20%28stable%29/</a>
- Choose DataCleaner-all.zip
- Unzip the file to the "Pentaho" folder.

# **DataCleaner plugin for PDI**

- Open a terminal or command-line window and change to the directory:
  Pentaho/data-integration
- Start PDI from the command line:
  - o On Windows, run Spoon.bat
  - o On Linux, run ./spoon.sh
  - o On Mac OS, run ./spoon.sh
- In the Tools menu, select Marketplace
- In the Marketplace, search for DataCleaner
- Install DataCleaner Data Quality for Kettle version 6 or 7
- Restart PDI
- In the Tools menu, select DataCleaner configuration
- Browse to the directory where the file DataCleaner.jar is located

### Alternative installation if the Marketplace functionality in PDI is not working:

- Open the Markeplace on the Web: <a href="http://www.pentaho.com/marketplace/">http://www.pentaho.com/marketplace/</a>
- Search for DataCleaner
- Select DataCleaner Data Quality for Kettle version 6
- Download the plugin
- Unzip the plugin to Pentaho/data-integration/plugins
- Start (or restart) Spoon
- In the Tools menu, select DataCleaner configuration
- Set the path to the directory where DataCleaner is installed in your system (i.e. the directory where DataCleaner.jar is located).

#### Pentaho Schema Workbench

- Download the latest version of Pentaho Schema Workbench from here: https://sourceforge.net/projects/mondrian/files/schema%20workbench/
- Unzip the file to the "Pentaho" folder.
- Copy the MySQL JDBC driver (mysql-connector-java-x.x.xx-bin.jar) to the folder: Pentaho/schema-workbench/drivers/

# Saiku Analytics (Community Edition)

- Download Saiku CE from here: <a href="http://community.meteorite.bi/">http://community.meteorite.bi/</a>
- Unzip the file to the "Pentaho" folder.
- Open a terminal or command-line window and run the following command:
  - o On Windows, run start-saiku.bat
  - o On Linux, run ./start-saiku.sh
  - o On Mac OS, run ./start-saiku.sh
- Open a Web browser and navigate to: <a href="http://localhost:8080/">http://localhost:8080/</a>
  - The first time you open this address, it may take a few minutes to load.
- Try to login with admin/admin, and you will be asked for a license.
- Go to <a href="http://licensing.meteorite.bi/">http://licensing.meteorite.bi/</a> and sign up with a new username and password
- After logging in, create a new company (Company Name: Instituto Superior Tecnico)
- Then create a new license (License Type: COMMUNITY\_EDITION)
- Finally, download the license file.
- Go to <a href="http://localhost:8080/upload.html">http://localhost:8080/upload.html</a> and upload the license file.
- Go back to <a href="http://localhost:8080/">http://localhost:8080/</a> and you should now be able to login with admin/admin

# **Pentaho Report Designer**

- Download the latest version of Pentaho Report Designer from here: https://sourceforge.net/projects/pentaho/files/Report%20Designer/
- Unzip the file to the "Pentaho" folder.
- Copy the MySQL JDBC driver (mysql-connector-java-x.x.xx-bin.jar) to the folder: Pentaho/report-designer/lib/jdbc/