

# Installing SpagoBI 5.1 on Centos 6.5 -Tomcat 7 with MySQL 5.6.

The SpagoBI project is a free software/open source initiative by the SpagoBI Labs of Engineering Group. It aims to realize the most complete 100% open source business intelligence suite, aggregating developers, integrators, companies, users and passionate people in an open community.

<http://www.spagobi.org/homepage/opensource/faqs/>

## Prerequisite Downloads and setup.

1. Install [JAVA JDK](#).
2. Install MySQL on CentOS 6.5, HOWTO Install Instructions are [here](#).
3. Download [SpagoBI 5.1](#).
4. Download [Mysql Script](#) from SpagoBI Website.
5. Download [Mysql Connector](#).
6. Download [Tomcat 7](#). (**Optional** - if you want to run SpagoBI on a Dedicated Tomcat Server.)

## Extracting SpagoBI.

```
Extract All-In-One-SpagoBI-5.1-21012015.zip
```

```
[ahmed@ahmed-server ~]# unzip All-In-One-SpagoBI-5.1-21012015.zip
```

Move to /opt and create a softlink as spagobi

```
[ahmed@ahmed-server ~]# mv All-In-One-SpagoBI-5.1-21012015 /opt/  
[ahmed@ahmed-server ~]# ln -s /opt/All-In-One-SpagoBI-5.1-21012015 /opt/spagobi
```

Setting Heap memory in `setenv.sh`

```
[ahmed@ahmed-server ~]# vim /opt/spagobi/bin/setenv.sh
```

Add below content. Depending on the Server Memory set the `Xms` and `Xmx` appropriately.

```
export JAVA_OPTS="$JAVA_OPTS\  
-server\  
-Xms8g\  
-Xmx16g\  
-XX:MaxPermSize=512m\  
-XX:MaxNewSize=512m\  
-XX:NewSize=512m\  
-XX:SurvivorRatio=12"
```

## Update SpagoBI lib with Mysql Connector.

Extract the connector.

```
[ahmed@ahmed-server ~]# tar xvzf mysql-connector-java-5.1.34.tar.gz
```

Copy jar to spago lib directory.

```
[ahmed@ahmed-server ~]# cp mysql-connector-java-5.1.34/mysql-connector-java-5.1.34-bin.jar \
/opt/spagobi/lib/
```

NOTE : If you already have a older connector in the directory /opt/spagobi/lib/ then remove it. USE THE LATEST CONNECTOR.

## Setting up Mysql Database.

Before we populated the scripts we need to create basic setup on Mysql.

### Setting spagobi Database and spagobi User.

Assuming that mysql-server is installed and we have set the root password as root@123.

```
[ahmed@ahmed-server ~]# mysql -uroot -proot@123
Warning: Using a password on the command line interface can be insecure.
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 475739
Server version: 5.6.21-log MySQL Community Server (GPL)
```

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Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

Creating spagobi database.

```
mysql> create database spagobi;
Query OK, 0 rows affected (0.00 sec)
```

Creating a user spagobi with password as spagobi for spagobi database.

```
mysql> grant all privileges on spagobi.* to spagobi@localhost identified by 'spagobi';
Query OK, 0 rows affected (0.00 sec)
```

**Optional** - If we are running mysql in a different machine then we have give permission to the server which is trying to connect to mysql-server. Assuming that web server is 10.10.10.18 we give the permission as below.

```
mysql> grant all privileges on spagobi.* to spagobi@10.10.10.18 identified by 'spagobi';
Query OK, 0 rows affected (0.00 sec)
```

Commit and we are done.

```
mysql> commit;
Query OK, 0 rows affected (0.00 sec)

mysql> exit
```

## Populating Tables for SpagoBI.

Extract script from mysql-dbscript-5.1.0\_19012015.zip

```
[ahmed@ahmed-server ~]# mkdir mysql-spagobi
[ahmed@ahmed-server ~]# cd mysql-spagobi
[ahmed@ahmed-server mysql-spagobi]# unzip mysql-dbscript-5.1.0_19012015.zip
[ahmed@ahmed-server mysql-spagobi]# ls -l
total 136
-rw-r--r-- 1 root root  4400 Nov 19 12:38 MySQL_create_quartz_schema.sql
-rw-r--r-- 1 root root  7954 Dec  3 11:44 MySQL_create_social.sql
-rw-r--r-- 1 root root 111910 Nov 19 12:38 MySQL_create.sql
-rw-r--r-- 1 root root   856 Nov 19 12:38 MySQL_drop_quartz_tables.sql
-rw-r--r-- 1 root root  3821 Nov 19 12:38 MySQL_drop.sql
[ahmed@ahmed-server mysql-spagobi]#
```

Now lets populate tables.

```
[ahmed@ahmed-server ~]# mysql -uspagobi -pspagobi spagobi < MySQL_create.sql
[ahmed@ahmed-server ~]# mysql -uspagobi -pspagobi spagobi < MySQL_create_quartz_schema.sql
[ahmed@ahmed-server ~]# mysql -uspagobi -pspagobi spagobi < MySQL_create_social.sql
```

Now we are ready.

## SpagoBI MySQL Connection Setup.

Update server.xml.

/opt/spagobi/conf/server.xml

Change the GlobalNamingResources to the below tag.

```
<!-- server.xml -->
<GlobalNamingResources>
  <!-- Editable user database that can also be used by UserDatabaseRealm to authenticate users-->
  <Resource auth="Container"
    description="User database that can be updated and saved"
    factory="org.apache.catalina.users.MemoryUserDatabaseFactory"
    name="UserDatabase"
    pathname="conf/tomcat-users.xml"
    type="org.apache.catalina.UserDatabase"/>

  <Environment name="spagobi_resource_path"
    type="java.lang.String"
    value="{catalina.base}/resources"/>
```

```

<Environment name="spagobi_sso_class"
             type="java.lang.String"
             value="it.eng.spagobi.services.common.FakeSsoService"/>

<Environment name="spagobi_service_url"
             type="java.lang.String"
             value="http://localhost:8080/SpagoBI"/>

<Environment name="spagobi_host_url"
             type="java.lang.String"
             value="http://localhost:8080"/>

<Resource auth="Container"
          factory="de.myfoo.commonj.work.FooWorkManagerFactory"
          maxThreads="5"
          name="wm/SpagoWorkManager"
          type="commonj.work.WorkManager"/>

<Resource auth="Container"
          driverClassName="com.mysql.jdbc.Driver"
          maxActive="20" maxIdle="10" maxWait="-1"
          name="jdbc/spagobi" password="spagobi"
          type="javax.sql.DataSource"
          url="jdbc:mysql://10.10.10.88:3306/spagobi"
          username="spagobi"/>

```

</GlobalNamingResources>

#### Update context.xml.

/opt/spagobi/webapps/SpagoBI/META-INF/context.xml

Change the contents of the file as below.

```

<Context docBase="SpagoBIProject" path="/SpagoBI" privileged="true"
         reloadable="true" source="org.eclipse.jst.j2ee.server:SpagoBIProject">
  <ResourceLink global="jdbc/spagobi"
                name="jdbc/spagobi" type="javax.sql.DataSource"/>
  <ResourceLink global="spagobi_resource_path"
                name="spagobi_resource_path" type="java.lang.String"/>
  <ResourceLink global="spagobi_sso_class"
                name="spagobi_sso_class" type="java.lang.String"/>
  <ResourceLink global="spagobi_host_url"
                name="spagobi_host_url" type="java.lang.String"/>
</Context>

```

#### Update hibernate.cfg.xml.

/opt/spagobi/webapps/SpagoBI/WEB-INF/classes/hibernate.cfg.xml

Update the hibernate-configuration tag, leave the other tag details as it is.

```

<hibernate-configuration>
  <session-factory name="HibernateSessionFactoryMySQL">
    <property name="hibernate.connection.datasource">java:/comp/env/jdbc/spagobi</property>
    <property name="hibernate.dialect">org.hibernate.dialect.MySQLDialect</property>
    <property name="hibernate.cache.use_second_level_cache">false</property>
    <property name="hibernate.cache.use_query_cache">false</property>
    <!--
      Leave rest of the Configuration as it is.
    -->
  </session-factory>
</hibernate-configuration>

```

**Update jbpn.hibernate.cfg.xml.**

```
/opt/spagobi/webapps/SpagoBI/WEB-INF/classes/jbpn.hibernate.cfg.xml
```

Update the hibernate-configuration tag, leave the other tag details as it is.

```

<hibernate-configuration>
  <session-factory>
    <property name="hibernate.dialect">org.hibernate.dialect.MySQLDialect</property>
    <property name="hibernate.connection.datasource">java:comp/env/jdbc/spagobi</property>
    <property name="hibernate.cache.use_second_level_cache">false</property>
    <property name="hibernate.cache.use_query_cache">false</property>
    <!--
      Leave rest of the Configuration as it is.
    -->
  </session-factory>
</hibernate-configuration>

```

**Update quartz.properties.**

```
/opt/spagobi/webapps/SpagoBI/WEB-INF/classes/quartz.properties
```

Comment below

```
org.quartz.jobStore.driverDelegateClass=org.quartz.impl.jdbcjobstore.HSQLDBDelegate
```

Uncomment Below for Mysql.

```
org.quartz.jobStore.driverDelegateClass=org.quartz.impl.jdbcjobstore.StdJDBCDelegate
```

## Starting SpagoBI Server.

Lets go to Location and start.

```
[ahmed@ahmed-server ~]# cd /opt/spagobi/bin
```

Since we are not using HSQLDB and have configured MySQL, we need to start just the tomcat server.

```
[ahmed@ahmed-server bin]# ./startup.sh
```

This will start the server on 8080.



Figure 1: "SPAGO BI"

## Moving SpagoBI to Dedicated Tomcat7 Server.

NOTE : Before we start stop spagobi server, which we started earlier.

```
[ahmed@ahmed-server ~]# /opt/spagobi/bin/shutdown.sh
```

Extract tomcat to /opt and create a softlink as tomcat.

```
[ahmed@ahmed-server ~]# tar xvzf apache-tomcat-7.0.59.tar.gz -C /opt
[ahmed@ahmed-server ~]# ln -s /opt/apache-tomcat-7.0.59 /opt/tomcat
```

### Copy lib Files.

Copy without overwrite.

```
[ahmed@ahmed-server ~]# cp -n /opt/spagobi/lib/* /opt/tomcat/lib/
```

Option Details

```
-n, --no-clobber
    do not overwrite an existing file (overrides a previous -i option)
```

### Copy webapps Directory.

Remove existing webapps directory as we dont need it any more.

```
[ahmed@ahmed-server ~]# rm -rf /opt/tomcat/webapps
```

Since we have already updated all the config files in the /opt/spagobi/webapps directory, we will copy them as it is.

```
[ahmed@ahmed-server ~]# cp -f /opt/spagobi/webapps /opt/tomcat/
```

### Copy conf server.xml from /opt/spago.

Lets copy server.xml and overwrite the file.

```
[ahmed@ahmed-server ~]# cp -f /opt/spagobi/conf/server.xml /opt/tomcat/conf/server.xml
```

### Copy setenv.sh to /opt/tomcat/bin.

Finally copy setenv.sh file to bin directory.

```
[ahmed@ahmed-server ~]# cp /opt/spagobi/bin/setenv.sh /opt/tomcat/bin/
```

### Starting Tomcat Server.

```
[ahmed@ahmed-server ~]# sh /opt/tomcat/bin/startup.sh
```

We are done.