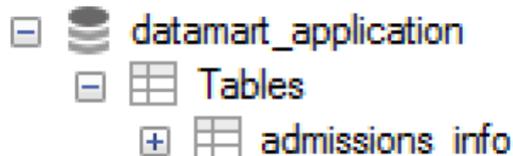


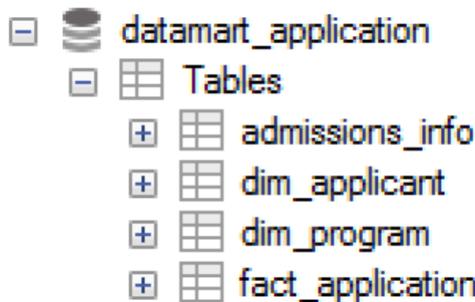
Week12 Class Exercise Instructions

STEP A. Create a Data Mart

1. In MySQL, execute the dump file (**admissions_info_dump.sql**). This creates a new database (**datamart_application_poc**) and a table (**admissions_info**).



2. Execute the build script (**build_script.sql**). This creates one fact and two dimension tables.



STEP B. Install a BI Application (Saiku Analytics - OLAP)

1. Download Saiku Analytics (**Community Edition**)

Download Link: <http://community.meteorite.bi/>



2. Extract the file (**saiku-latest.zip**)
3. Get a license file and upload into the server
 - a. Sign-up an account at <http://licensing.meteorite.bi/signups?form>
(You must complete the registration by confirming an email sent to your inbox)
 - b. Visit <http://licensing.meteorite.bi/> and log-in
 - c. Enter a company information via **Create new Company**

- d. Create a license file via **Create New License**.

Create new License

Hostname :	DANIELKLEE7E0B
On a Unix server type the 'hostname' command, on Windows server run 'ipconfig /all'	
Max Users :	2
Only requires setting for a full license.	
License Type :	COMMUNITY_EDITION
Username :	interlee \$2a\$10\$mFyMFPDKF
Company :	330 South Federa Street 773
SAVE	

For the **Hostname**, run 'ipconfig/all' as below ('hostname' for Linux):

```
C:\Windows\system32\cmd.exe
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\kle375>ipconfig/all

Windows IP Configuration

Host Name . . . . . : DANIELKLEE7E0B
Primary Dns Suffix . . . . . :
Node Type . . . . . : Hybrid
IP Routing Enabled . . . . . : No
WINS Proxy Enabled . . . . . : No
DNS Suffix Search List . . . . . : localdomain
```

For **Max Users**, enter 1 or more.

For **License Type**, select COMMUNITY_EDITION.

For **Username**, leave the default as it is.

For Company: Select the one you created from the previous step.

STEP C. Launch Saiku Analytics Server

(Reference: <http://wiki.meteorite.bi/display/SAIK/Installation+guide>)

1. Launch the Saiku Analytics Server by running the **start-saiku.bat** (start-saiku.sh for Linux or Mac). Upon successful launch, you will see an apache web server console window (no console window will show in Linux or Mac). Do not close the window and move on to the next step.

```

Apr 09 2016 11:46:26 PM com.sun.jersey.spi.container.SpringComponentProviderFactory registerSpringBeans
INFO: Registering Spring bean, of type org.saiku.web.rest.resources.BasicRepositoryResource2 as a root resource class
Apr 09 2016 11:46:26 PM com.sun.jersey.spi.spring.container.SpringComponentProviderFactory registerSpringBeans
INFO: Registering Spring bean, filterRepositoryBean, of type org.saiku.web.rest.resources.FilterRepositoryResource as a root resource class
Apr 09 2016 11:46:26 PM com.sun.jersey.spi.spring.container.SpringComponentProviderFactory registerSpringBeans
INFO: Registering Spring bean, exporterBean, of type org.saiku.web.rest.resources.ExporterResource as a root resource class
Apr 09 2016 11:46:26 PM com.sun.jersey.spi.spring.container.SpringComponentProviderFactory registerSpringBeans
INFO: Registering Spring bean, statsBean, of type org.saiku.web.rest.resources.StatisticsResource as a root resource class
Apr 09 2016 11:46:26 PM com.sun.jersey.server.impl.application.WebApplicationImpl _initiate
INFO: Initiating Jersey application, version 'Jersey: 1.19 02/11/2015 03:25 AM'
23:46:27,378 WARN [DomUtil] Secure XML processing is not supported
java.lang.reflect.InvocationTargetException; cause: java.security.SecureCopy.setFeature(Ljava/lang/String;Z)V
        at org.apache.jackrabbit.webdav.DomUtil.createPart(DomUtil.java:71)
        at org.apache.jackrabbit.webdav.simple.ResourceConfig.parse(ResourceConfig.java:174)
        at org.apache.jackrabbit.webdav.simple.SimpleResourceConfig.createResource(SimpleResourceConfig.java:129)
        at org.apache.jackrabbit.webdav.simple.SimpleUddoServlet.init(SimpleUddoServlet.java:158)
        at javax.servlet.GenericServlet.init(GenericServlet.java:158)
        at org.springframework.web.context.support.StandardWrapper.initServlet(StandardWrapper.java:1284)
        at org.apache.catalina.core.StandardWrapper.loadServlet(StandardWrapper.java:1197)
        at org.apache.catalina.core.StandardWrapper.load(StandardWrapper.java:1087)
        at org.apache.catalina.core.ContainerBase.addChildInternal(ContainerBase.java:5266)
        at org.apache.catalina.core.ContainerBase.addChild(ContainerBase.java:5154)
        at org.apache.catalina.core.StandardHost.addChild(StandardHost.java:652)
        at org.apache.catalina.core.StandardHost.add child(StandardHost.java:652)
        at org.apache.catalina.startup.HostConfig.deployDirectory(HostConfig.java:1263)
        at org.apache.catalina.startup.HostConfig.deployApps(HostConfig.java:1094)
        at org.apache.catalina.startup.HostConfig$DeployDescriptor.call(HostConfig.java:511)
        at java.util.concurrent.FutureTask.run(FutureTask.java:266)
        at java.util.concurrent.ThreadPoolExecutor.runWorker(ThreadPoolExecutor.java:1142)
        at java.util.concurrent.ThreadPoolExecutor$Worker.run(ThreadPoolExecutor.java:617)
        at java.lang.Thread.run(Thread.java:745)
Apr 09 2016 11:46:27 PM org.apache.catalina.startup.HostConfig deployDirectory
INFO: Deploy path C:\Program Files\Apache Software Foundation\Tomcat 8.0\temp\wtpwebapps\saiku has finished in 18,985 ms
Apr 09 2016 11:46:27 PM org.apache.coyote.AbstractProtocol start
INFO: Starting ProtocolHandler ["http-bio-8080"]
Apr 09 2016 11:46:27 PM org.apache.coyote.AbstractProtocol start
INFO: Starting ProtocolHandler ["ajp-bio-8009"]
Apr 09 2016 11:46:27 PM org.apache.catalina.startup.Catalina start
INFO: Server startup in 19315 ms

```

2. Open a web browser (Chrome preferred) and type <http://localhost:8080> in the address bar
3. Login to the server (username: admin, password: admin)
4. Import the license via <http://localhost:8080/upload.html>
(This is just a one time thing and so you do not need to do that next time you launch the server)

Things to check if you're having problems:

- Are you using JDK7?
- Is the JAVA_HOME variable set in the OS?
- Is port 8080 blocked in the firewall?

STEP D. Create an OLAP Cube in Saiku Analytics

1. Import the OLAP schema, **datamart_application_poc.xml**, which was creating using **Pentaho Schema Workbench**.
 - a. Go to Admin Console
 - b. Go to **Data Source Management** → **Schema** → **Add Schema**
 - c. Choose the **datamart_application_poc.xml** and enter **datamart_application_poc** in the Schema Name text box and click

Upload.

Schema Management

Choose File datamart_application_poc.xml

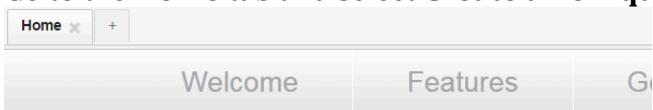
Schema Name: datamart_application_poc

Upload

- d. If you want to learn more about **Pentaho Schema Workbench**, check out the information below:
 - i. Download: <http://community.pentaho.com/>
 - ii. Demo:
<https://www.youtube.com/watch?v=Tqw3o0k5jsM&list=PLIS-R80ieu1snl5wW893-BLiE0yDVhQAe> to create the OLAP schema,
2. Add a data source
 - a. In the same Admin Console, go to **Data Source Management → Data Sources → Add Data Source**
 - b. Enter the following information:
Name: datamart_application_poc
Connection Type: Mondrian
URL: jdbc:mysql://localhost/datamart_application_poc
Schema: datamart_application_poc.xml
Jdbc Drive: com.mysql.jdbc.Driver

STEP D. Create Your First OLAP Report

1. Go to the **Home** tab and select **Create a new query**



CUTTING EDGE OPEN SOURCE ANALYTICS

Saiku has the power to change the way you think about your business and powerful, web based analytics for everyone in your organisation. Quickly a data source to discover what is really happening inside and outside your c

Quick Links



2. Select the **Application Fact** cube under **datamart_application_poc**.

Cubes

Select a cube

- New Schema1 (datamart_admission_jdbc)
 - Message Fact
- New Schema1 (datamart_application_jdbc)
 - Application Fact
- New Schema1 (datamart_application_poc)
 - Application Fact
- Kitchen and Bath Beyond (datamart_kbb_jdbc)
 - Kitchen Bath and Beyond Sales
- New Schema1 (datamart_message)
 - Message Fact

Refresh the list by clicking the green icon in case the cube does not show in the list.

3. You can now click any of the dimension attributes or fact measures to create a report

Cubes

Application Fact

Measures

Add

Measures

Is Applied

Dimensions

Applicant Usage

- Geo
- (All)
- Citizenship Country

Program Usage

- (All)
- Department
- Program

Columns

Rows

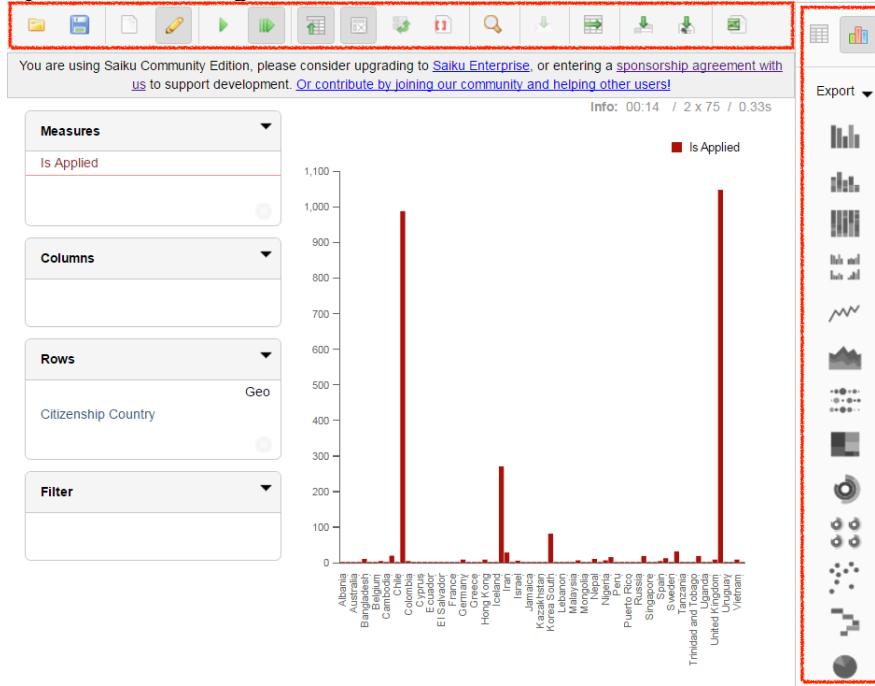
Geo

Citizenship Country

Filter

Citizenship Country	Is Applied
Albania	1
Argentina	1
Australia	3
Austria	1
Bangladesh	11
Belarus	1
Belgium	1
Brazil	5
Cambodia	1
Canada	20
Chile	2
China	988
Colombia	5
Costa Rica	1
Cyprus	1
Denmark	1
Ecuador	1
Egypt	1
El Salvador	1

4. Explore some of the features on the top section as well as the visualization options on the right.



STEP E. Add a Calculated Measure

1. Click **Add** on Measures header
2. Create a calculated measure, **Selectivity (Is Admitted/Is Applied)** by following the screenshot below and click **Add**

Calculated Member

Calculated Measures:	Name: Selectivity Measure: -- Add a measure in formula -- Formula: 1 [Measures].[Is Admitted]/[Measures].[Is Applied] Functions: Growth Format % Dimension: Measures Format: ##% Interger percentage
Calculated Members:	No calculated members created

Notice that the new calculated measure is listed on the Measures section on the left.

Measures	Add
Application Fact	
Is Applied	
Is Admitted	
Is Accepted	
Calculated Measures	
Selectivity	

3. Save this query by clicking the diskette icon



STEP F. Submit Screenshots in One Zipped File (per Group)

- From **Step B** through **E**, make a few screenshots for each step and submit in one zipped file.

- This is a group homework and so submit one per group, not one per student.

End.