AMGA Tutorial Session 2
Hands-on (II) : AMGA Manager

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Supercomputing Center
KISTI (Korea Institute of Science and Technology Information)
Hands-on (II)
Use AMGA service using AMGA Manager
Hands-on (II)

- Overview of AMGA Manager
- access AMGA service with AMGA Manager
- blindly follow

- Extra Hands-on (p63~)
What is AMGA Manager?

- easy-to-use, general-purpose GUI toolkit (client) for AMGA
- interactive exploration and searching environment for metadata in an user-friendly manner and hiding complexities
- Manipulation: metadata schema, entries, AC, G/U info, site info, collection properties etc.

Development

- Develop Eclipse toolkit based on JAVA
- Software development methodologies
  - UML (Unified Modeling Language)
  - Prototyping and Spiral method
Product Features

1. User Friendly Interface
2. Fast AMGA Connections
3. Powerful Schema Browser
4. Easy Monitoring Functions
5. Easy and Fast Query Execution
6. Prompt action about AMGA upgrade
AMGA Manager

connection information: user name, host, port No., AMGA version

Attributes with data type

Schema browser/SQL Editor

Console/Progress/SQL Result/Authen. Token view
Main Toolbar in AMGA Manager

- New connection: new connection
- Disconnection: disconnection
- Schema browser: manipulate and monitor metadata schema
- SQL Editor: make easily queries with some help Fn.
- Group/User Manager: group/user Manager
- Site Manager: site Manager
- Data Import Wizard: import metadata in file(xls, txt) into AMGA
- Data Export Wizard: export metadata into file(xls, txt)
- Data Rollback Wizard: Import Rollback, temporary Fn. (It will be gone)

AMGA Manager doesn’t use these which are g-Eclipse components
## Shortcut keys - MENU

<table>
<thead>
<tr>
<th>MENU</th>
<th>Shortcut key</th>
</tr>
</thead>
<tbody>
<tr>
<td>File -&gt; new Connection</td>
<td>Ctrl + Shift + O</td>
</tr>
<tr>
<td>File -&gt; end Connection</td>
<td>Ctrl + Shift + X</td>
</tr>
<tr>
<td>File -&gt; change password</td>
<td>Alt + F4</td>
</tr>
<tr>
<td>File -&gt; exit</td>
<td>Alt + F4</td>
</tr>
<tr>
<td>Help -&gt; Program Help</td>
<td>F9</td>
</tr>
<tr>
<td>Help -&gt; About AMGA Manager</td>
<td>F10</td>
</tr>
<tr>
<td>Key Assist</td>
<td>Ctrl + Shift + L</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MENU</th>
<th>Shortcut key</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tool -&gt; Collection</td>
<td>Ctrl + Insert</td>
</tr>
<tr>
<td>-&gt; Make Collection</td>
<td>Ctrl + Insert</td>
</tr>
<tr>
<td>-&gt; Drop Collection</td>
<td>Ctrl + Delete</td>
</tr>
<tr>
<td>Tool -&gt; Schema Browser</td>
<td>Alt + 1</td>
</tr>
<tr>
<td>-&gt; Data</td>
<td>Alt + 1</td>
</tr>
<tr>
<td>-&gt; Attribute</td>
<td>Alt + 2</td>
</tr>
<tr>
<td>-&gt; ACL</td>
<td>Alt + 3</td>
</tr>
<tr>
<td>-&gt; Constraints</td>
<td>Alt + 4</td>
</tr>
<tr>
<td>-&gt; Index</td>
<td>Alt + 5</td>
</tr>
<tr>
<td>Tool -&gt; SQL Editor</td>
<td>Alt + 6</td>
</tr>
<tr>
<td>Tool -&gt; Data Import</td>
<td>Ctrl + I</td>
</tr>
<tr>
<td>Tool -&gt; Data Export</td>
<td>Ctrl + K</td>
</tr>
<tr>
<td>Tool -&gt; Data Rollback</td>
<td>Ctrl + U</td>
</tr>
<tr>
<td>Tool -&gt; Group/User Manager</td>
<td>Ctrl + G</td>
</tr>
<tr>
<td>Tool -&gt; Site Manager</td>
<td>Ctrl + T</td>
</tr>
</tbody>
</table>
Shortcut keys - Others

### Collection view shortcut key

<table>
<thead>
<tr>
<th>Popup Menu</th>
<th>[right-button/mouse]</th>
<th>-&gt; Data</th>
<th>Alt + 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>-&gt; Attribute</td>
<td>Alt + 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-&gt; ACL</td>
<td>Alt + 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-&gt; Constraints</td>
<td>Alt + 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-&gt; Index</td>
<td>Alt + 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-&gt; SQL Editor</td>
<td>Alt + 6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-&gt; Make Collection</td>
<td>Ctrl + Insert</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-&gt; Permission Collection</td>
<td>Ctrl + End</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-&gt; Drop Collection</td>
<td>Ctrl + Delete</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-&gt; Federation Manager</td>
<td>Ctrl + Home</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-&gt; Data Import</td>
<td>Ctrl + I</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-&gt; Data Export</td>
<td>Ctrl + K</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-&gt; Data Export</td>
<td>Ctrl + K</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-&gt; Refresh</td>
<td>F5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Schema Browser Shortcut key

<table>
<thead>
<tr>
<th>Popup Menu</th>
<th>[right-button/mouse]</th>
<th>-&gt; All Select</th>
<th>Ctrl + F</th>
</tr>
</thead>
<tbody>
<tr>
<td>-&gt; All UnSelect</td>
<td>Ctrl + D</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-&gt; Select</td>
<td>Ctrl + S</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-&gt; unSelect</td>
<td>Ctrl + Shift + S</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-&gt; Copy</td>
<td>Ctrl + C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-&gt; Pause</td>
<td>Ctrl + P</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-&gt; Refresh</td>
<td>Space Bar</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### SQL Editor Shortcut key

<table>
<thead>
<tr>
<th>Popup Menu</th>
<th>[right-button/mouse]</th>
<th>-&gt; Completed CLI</th>
<th>F1</th>
</tr>
</thead>
<tbody>
<tr>
<td>-&gt; Run</td>
<td>F5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-&gt; Undo</td>
<td>Ctrl + Z</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-&gt; Redo</td>
<td>Ctrl + Y</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-&gt; Cut</td>
<td>Ctrl + X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-&gt; Copy</td>
<td>Ctrl + C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-&gt; Paste</td>
<td>Ctrl + V</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-&gt; Select</td>
<td>Ctrl + A</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Hands-on by yourself

From “Browser around Collection view” to “Pop-up menu”
(p.11 ~ p.14)

Please, try to take look at the collection view and to operate directly its functions with click by yourself.
Browse around Collection View

The menu of collection view shows following below.

Don’t delete your directory !!!!
Pop-up Menu - Browse around Collection View

The menu of pop-up (clicking right button of mouse) at your directory (managerXX) in collection view shows following below.

- Go Data
- Go Attribute
- Go ACL
- Go Constraint
- Go Index
- Go SQL Editor

**Collection**
- Make Collection
- Permission Collection
- Drop Collection

**Send collection name**
- Refresh
- Property

**Data Import**
- Data Export
- Data Rollback

**Data Rollback**

**Export data file**

**Import data file**

**Move on schema browser/ (data, Attr, ACL, const, index)**

**Move on SQL Editor**

**Property of collection**
Pop-up Menu - Browse around Collection View

The permission collection of pop-up in collection view shows following below. You can manage the owner and permission in the target collection.
Pop-up Menu - Browse around Collection View

The property of pop-up in collection view shows following below.
You’ll see the property such as type, owner, permission and ACL in the target collection.
Hands-on by yourself

From “Make Collection” to “Data Import Wizard”  
(p.16 ~ p.23)

Please, try to make your collection and import data-set in the file(population.xls) into the collection using AMGA Manager by yourself

Let’s go with me
Make collection

Following below, you will create a new collection (population) with attributes to fill the schema with entries in this directory using Data Import Wizard. You will learn:

- how to create a directory with metadata attributes using AMGA Manager
Make collection

Create Path /managerXX

Collection name : population

Attributes
- alpha2_code varchar(20)
- alpha3_code varchar(20)
- Rank int
- percent_of_world text
- population text
- date_of_estimate text
- source text
Make collection

Ready to prepare rice bowl, in the next step, fill the bowl with rice
Data Import Wizard

Following below, you will import population data into population directory(/managerXX/population) using Data Import Wizard. You will learn:

- how to insert many entries, which you have in the file(xls, txt format), into a directory using AMGA Manager
### Data Import Wizard

**Data Formats**
- Specify the file format and conversion options for the data.

**Input File Format**
- File data format: Excel file

**String quote character:**
- Tab

**First data row:**
- 1

---

**File Preview**
- Select location from file to start import.

**SelectStar Position For Each Source**
- Column: FILE
- Row: 1

<table>
<thead>
<tr>
<th>FILE</th>
<th>Alpha2_code</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Afghanistan</td>
</tr>
<tr>
<td>2</td>
<td>Albania</td>
</tr>
<tr>
<td>3</td>
<td>Algeria</td>
</tr>
<tr>
<td>5</td>
<td>Argentina</td>
</tr>
<tr>
<td>6</td>
<td>Aruba</td>
</tr>
<tr>
<td>7</td>
<td>Australia</td>
</tr>
</tbody>
</table>

- **Total data row:** 123

**in case of txt file, this is activating**

**If first row is not data, you may change first data row.**

---

**Preview your data in the file**
Data Import Wizard

Check matching between file fields and attributes
No match, you can't import data!!
Data Import Wizard

Check SQL script made by AMGA Manager and total data row :223

19/09/2011
Check metadata in the population schema
Hands-on by yourself

From “Filter” to “Clear Filter”
(p.25 ~ p.33)

Please, try to make filter and sort data-set and manage metadata in target collection.

Let’s go with me
**Filter - Manage Schema browser(Data)**

- **Try to make Filter**
  1. Click filter
  2. Click tab
  3. Write 10
  4. Click “>”
  5. Click “/manager01/population:rank”
  6. Click Ok
Filter - Manage Schema browser(Data)

- Filtered data

Once set up the filter, you can use it again, each time you connect to AMGA.
Sort - Manage Schema browser(Data)

- **Sort** *(as single-use)*

1. Click sort icon
2. Select rank
3. Select sort ASC
4. Apply
Sort - Manage Schema browser(Data)

- Sorted data

Although ordering sequence, this condition will be gone after changing collection.
Add entry - Manage Schema browser(Data)

- Try to add entry

1. **Add row**
2. **Fill data in each column**
3. **Commit**

<table>
<thead>
<tr>
<th>FILE</th>
<th>alp_ode</th>
<th>alp_ode</th>
<th>rank</th>
<th>percent_of_world</th>
<th>population</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>CN</td>
<td>CHN</td>
<td>1</td>
<td>19.52</td>
<td>1339020000</td>
</tr>
<tr>
<td>India</td>
<td>IN</td>
<td>IND</td>
<td>2</td>
<td>17.26</td>
<td>1184259000</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td>4.52</td>
<td>309897000</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4</td>
<td>3.41</td>
<td>234181400</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>5</td>
<td>2.82</td>
<td>193321000</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>6</td>
<td>2.48</td>
<td>170183500</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>BD</td>
<td>BDG</td>
<td>7</td>
<td>2.4</td>
<td>164425000</td>
</tr>
<tr>
<td>Nigeria</td>
<td>NG</td>
<td>NGA</td>
<td>8</td>
<td>2.31</td>
<td>158259000</td>
</tr>
<tr>
<td>Russia</td>
<td>RU</td>
<td>RUS</td>
<td>9</td>
<td>2.07</td>
<td>141927297</td>
</tr>
<tr>
<td>MyLand</td>
<td>ML</td>
<td>MLD</td>
<td>10</td>
<td>30</td>
<td>100000000000</td>
</tr>
</tbody>
</table>
Add entry - Manage Schema browser(Data)

- Added data

```
<table>
<thead>
<tr>
<th>FILE</th>
<th>alp...ode</th>
<th>alp...ode</th>
<th>rank</th>
<th>percent_of_world</th>
<th>population</th>
</tr>
</thead>
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<td>17.26</td>
<td>1184259000</td>
</tr>
<tr>
<td>UnitedStates</td>
<td>US</td>
<td>USA</td>
<td>3</td>
<td>4.52</td>
<td>309897000</td>
</tr>
<tr>
<td>Indonesia</td>
<td>ID</td>
<td>IDN</td>
<td>4</td>
<td>3.41</td>
<td>234181400</td>
</tr>
<tr>
<td>Brazil</td>
<td>BR</td>
<td>BRA</td>
<td>5</td>
<td>2.82</td>
<td>193321000</td>
</tr>
<tr>
<td>Pakistan</td>
<td>PK</td>
<td>PAK</td>
<td>6</td>
<td>2.48</td>
<td>170133500</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>BD</td>
<td>BGD</td>
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<td>2.4</td>
<td>164425000</td>
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<td>2.31</td>
<td>158259000</td>
</tr>
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<td>RUS</td>
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<td>2.07</td>
<td>141927297</td>
</tr>
<tr>
<td>MyLand</td>
<td>ML</td>
<td>MLD</td>
<td>0</td>
<td>30</td>
<td>100000000000</td>
</tr>
</tbody>
</table>
```
Delete entry - Manage Schema browser(Data)

- **Try to Delete**

1. **Check target entry**
2. **Click remove icon**
3. **Confirm to delete**

---

*Date: 19/09/2011*
Delete entry - Manage Schema browser (Data)

- **Deleted data**

```plaintext
<table>
<thead>
<tr>
<th>FILE</th>
<th>alp_ode</th>
<th>alp_ode</th>
<th>rank</th>
<th>percent_of_world</th>
<th>population</th>
</tr>
</thead>
<tbody>
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<td>1</td>
<td>China</td>
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</tr>
<tr>
<td>2</td>
<td>India</td>
<td>IN</td>
<td>IND</td>
<td>2</td>
<td>1184259000</td>
</tr>
<tr>
<td>3</td>
<td>UnitedStates</td>
<td>US</td>
<td>USA</td>
<td>3</td>
<td>309897000</td>
</tr>
<tr>
<td>4</td>
<td>Indonesia</td>
<td>ID</td>
<td>IDN</td>
<td>4</td>
<td>234181400</td>
</tr>
<tr>
<td>5</td>
<td>Brazil</td>
<td>BR</td>
<td>BRA</td>
<td>5</td>
<td>193321000</td>
</tr>
<tr>
<td>6</td>
<td>Pakistan</td>
<td>PK</td>
<td>PAK</td>
<td>6</td>
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</tr>
<tr>
<td>7</td>
<td>Bangladesh</td>
<td>BD</td>
<td>BGD</td>
<td>7</td>
<td>164425000</td>
</tr>
<tr>
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<td>Nigeria</td>
<td>NG</td>
<td>NGA</td>
<td>8</td>
<td>158259000</td>
</tr>
<tr>
<td>9</td>
<td>Russia</td>
<td>RU</td>
<td>RUS</td>
<td>9</td>
<td>141927297</td>
</tr>
</tbody>
</table>
```

19/09/2011
Clear Filter - Manage Schema browser(Data)

- Try to Clear filter

1. Click Filter icon
2. Click Clear button
Manage Schema browser(others)

HOMEWORK

Attributes
Create
Read
Delete

ACL
Create
Read
Update
Delete

Constraints
Create
Read
Delete

Index
Create
Read
Delete
Overview of SQL Editor Use

- Print target directory path at SQL Editor
- Current working path
- Double click: print target attribute at SQL Editor
- Syntax and description for a command
- Result of executed queries
Use SQL Editor

- Store current editing queries
- Open file
- Query builder
- Execute queries
- Complete CLI
- In case of printing attribute with path
- In case of printing attribute without path
- Print all attributes at SQL Editor
- Print target attribute selected
Use SQL Editor

SQL Editor provides you to make your queries easier relating to collection view and attributes view and SQL result view automatically shows the executed result. You will make various queries easier using SQL Editor with powerful help functions.
Hands-on by yourself

From “Overview of Use SQL Editor” to “Insert”
(p.39 ~ p.54)

Please, make use of SQL Editor in accordance with the following steps by yourself

Let’s go with me
What are the merits of SQL Editor?

Following steps, you will learn:

- what helpful functions in SQL Editor
- how to use Multi-queries
- how to use completed CLI during make AMGA command
- how to use scripting to make automatically query
- how to write directory path and attributes with easy ways
- how to reuse queries (commented query presenting // symbols and queries stored in the file)
Create – Use SQL Editor

Create a directory (name : bookmark)

SQL Editor > createdir bookmark + F5(run)

Tip : Checking the current path every time reduce error being possible to be caused by your queries.
Multi-queries – Use SQL Editor

Change directory to bookmark directory and view current working directory at the same time. – multi-queries need semicolon(;) -

SQL Editor > cd bookmark;
pwd;

Tip: The result of running multi-queries shows for only last one although several queries are run.
Add attributes – Use SQL Editor

Make attributes in the bookmark directory

SQL Editor> addattr . id int surl text type varchar(50) desc text

Attributes
- id [int]
- surl [text]
- type [varchar(50)]
- desc [text]
List attributes — Use SQL Editor

Check making well

SQL Editor > list + F1(Completed CLI) + select "listattr" + . + F5(run)

Pushing the F1(Completed CLI) to help you complete command. Keep in mind F1(shortcut key) !!!
Insert(scripting) — Use SQL Editor

Following below dataset, make Insert query

<table>
<thead>
<tr>
<th>FILE</th>
<th>id</th>
<th>surl</th>
<th>type</th>
<th>desc</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMGA</td>
<td>3</td>
<td><a href="http://amga.web.cern.ch/amga/downloads/2.1.1/">http://amga.web.cern.ch/amga/downloads/2.1.1/</a></td>
<td>rpm</td>
<td>AMGA service</td>
</tr>
</tbody>
</table>

Click the right button of mouse in the target directory(bookmark), select insert ...(/scripting/insert ...)

1. Refresh Collection View

2. Click the right button of mouse

3. Click the right button of mouse
Insert(scripting) – Use SQL Editor

Fill-in the value at the sample query made from scripting

```
Current Path: /manager01/bookmark

<table>
<thead>
<tr>
<th>SQL</th>
<th>F1: completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>insert /manager01/bookmark/AMGA id 3 surl &quot;<a href="http://amga.web.cern.ch/amga/downloads/2.1.1/">http://amga.web.cern.ch/amga/downloads/2.1.1/</a>&quot; type &quot;rpm&quot; desc &quot;AMGA_service&quot;</td>
<td></td>
</tr>
</tbody>
</table>
```

Don’t copy AMGA query

Complete insert query

SQL Editor> insert /managerXX/bookmark/AMGA id 3 surl "http://amga.web.cern.ch/amga/downloads/2.1.1/" type "rpm" desc "AMGA_service"

Replace XX according to your No.
Selectattr(scripting) – Use SQL Editor

Choose selectattr command made from `scriping/selectattr` ... in the target directory (/managerXX/bookmark) in order to confirm inserted data

1. Click the right button of mouse

2. Select `selectattr ...`
Selectattr(scripting) – Use SQL Editor

Run the selectattr query clicking or pushing the F5(run)

SQL Editor> selectattr /managerXX/bookmark:FILE  /managerXX/bookmark:id
/managerXX/bookmark:surl  /managerXX/bookmark:type
/managerXX/bookmark:desc       ' '  

Replace XX according to your No.
Update(scripting) – Use SQL Editor

Check changing population data in “Vietnam” entry using selectattr command and printing some attributes selected(FILE, rank, date_of_estimate) then we will change the value of “date_of_estimate” attribute to 2008.

SQL Editor> selectattr /managerXX/population:FILE /managerXX/population:rank /managerXX/population:date_of_estimate 'like(/managerXX/population:FILE,"Vietnam")'

1. Select target directory to activate it
2. Double click, to print attribute at SQL Editor
3. Replace XX according to your No.
4. Check population data in “Vietnam” entry after run the select query

19/09/2011
Update(scripting) – Use SQL Editor

Make **update** query

Tip: Value in date_of_estimate => 2011, Condition => FILE name is Vietnam

- query: update + click (print directory path: managerXX/population) + double click *date_of_estimate* (check the “only attr” radio button in Attribute view) + 2011 + ‘like( + double click FILE + , “Vietnam”)’

SQL Editor> `update /managerXX/population date_of_estimate 2011 'like(FILE,"Vietnam")'`

Select target directory to activate it

1. Click the radio button

2. Click here to print working path

3. After No. 4, guess the usage !!

4. Check the inserted data with previous page

Replace XX according to your No.
Insert (reuse stored and used queries)

Open the stored queries file (tutorial_queries.txt) given by us.

Click [open icon] to open the file.
Insert(reuse stored and used queries)

Following below, run the select query to check target entry which will be deleted.

Replace XX according to your No.

Deactivate used select query to use next rm query.
Insert(reuse stored and used queries)

As the figure is shown, remove // (double slash) and run activating rm query.

Deactivate used rm query with “//”.

19/09/2011
Insert(reuse stored and used queries)

As the figure is shown, check no entry as a result of removing entry.
Drag select query part and just run it
Insert(reuse used and stored queries)

As the figure is shown, remove // (double slash) and run activating insert query.

Deactivate used insert query with “//”. Then guess how to check inserted data!!
Hands-on by yourself

From “Join(Warming up for Quiz)” to “View(Warming up for Quiz)”
(p.56 ~ p.61)

Please, try to make selectattr query with join condition and make simple view using AMGA Manager by yourself

Let’s go with me
Join (Warming up for Quiz)

As you can see below, it is possible to make complex queries allowing the user to make joins two collections.

<Mission>

Show a data-set of countries which have population information, its capital and alpha3_code from two collections (population, position).

Tip: define attributes and relation key.

Replace XX according to your No.

Attributes (4): FILE, alpha3_code, capital, population

Relation key (1): alpha3_code
Join (Warming up for Quiz)

Tip: define attributes and relation key

Syntax: selectattr dir1:attr1 dir1:attr2 dir1:attr3 dir2:attr1 'dir1:attr2 = dir2:attr2'

SQL Editor >
selectattr /managerXX/population:FILE /managerXX/population:alpha3_code
/managerXX/population:population /managerXX/position:capital
'/managerXX/population:alpha3_code =/managerXX/position:alpha3_code'

Replacing XX according to your number like 01,02 …
Join (Warming up for Quiz)

This figure depicts the result of your selectattr query with join condition.

<table>
<thead>
<tr>
<th>#</th>
<th>Country</th>
<th>manager01/alpha3_code</th>
<th>manager01/position</th>
<th>manager01/capital</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Afghanistan</td>
<td>AFG</td>
<td>29117000</td>
<td>Kabul</td>
</tr>
<tr>
<td>2</td>
<td>Albania</td>
<td>ALB</td>
<td>3195000</td>
<td>Tirane</td>
</tr>
<tr>
<td>3</td>
<td>Algeria</td>
<td>DZA</td>
<td>35423000</td>
<td>Algiers</td>
</tr>
<tr>
<td>4</td>
<td>American Samoa</td>
<td>ASM</td>
<td>69000</td>
<td>Pago Pago</td>
</tr>
<tr>
<td>5</td>
<td>Andorra</td>
<td>AND</td>
<td>84082</td>
<td>Andorra la Vela</td>
</tr>
<tr>
<td>6</td>
<td>Angola</td>
<td>AGO</td>
<td>18993000</td>
<td>Luanda</td>
</tr>
<tr>
<td>7</td>
<td>Antigua and Barbuda</td>
<td>ATG</td>
<td>89000</td>
<td>W. Indies</td>
</tr>
<tr>
<td>8</td>
<td>Argentina</td>
<td>ARG</td>
<td>40518951</td>
<td>Buenos Aires</td>
</tr>
<tr>
<td>9</td>
<td>Armenia</td>
<td>ARM</td>
<td>3236000</td>
<td>Yerevan</td>
</tr>
</tbody>
</table>
View (Warming up for Quiz)

Views allow you to create virtual new tables (directories) that combine the information of other tables, similar to what `selectattr` does.

In the following example, the first one shows a use case where a view is created using all the entries in the current directory, but using only the attr1 or attr2 columns. In the second example a view is created combining attributes from the current directory and the dir subdirectory.

Views can be accessed and deleted like normal directories.

```plaintext
Query> view_create view1 . attr1 attr2 ''
Query> view_create view2 . attr1 ./dir:attr2 'dir:FILE = FILE'
```

You will learn:
- how to make virtual table
View (Warming up for Quiz)

<Mission>

Make simple view query as the following script

```
SQL Editor> pwd
/managerXX/population/

SQL Editor> view_create spviewXX . /managerXX/population:alpha2_code
/managerXX/population:rank /managerXX/population:population''
```

Replacing XX according to your number like 01,02 ...
Checking the result

Refresh collection view and find view made by you in Schema Browser(Data)

Tip: You always have to use current path which you want to mainly work at. Please check current path during making view.
View (Warming up for Quiz)

1. Refresh collection view and find view made by you

2. Check Schema Browser (Data)
Quiz
Quiz (question)

To-Do

Select which countries satisfy the conditions that the latitude of capitals is between 35 degrees north and 55 degrees north and population rank is less than 30 using selectattr and then make view using select query (2 questions).


Which countries in the population 30 rank?

35°N~55°N
EXTRA HANDS-ON

From “Change ACL” to “Data Export Wizard”
(p.64 ~ p.74)

Please, try to change ACL in target collection to show your metadata with the schema and Export data to a file using Data Export Wizard by yourself.

Let’s go alone
Overview of Extra Hands-on

1. Change ACL condition in target collection
2. Data Export wizard

It’s not mandatory !!!!
1. Change the permission at ACL browser

<Precondition>
participants who took a look at the collection view

<Mission>
Provide other tutorial participants with the reading permission at ACL browser
1. Change the permission at ACL browser

Make a group so as to give reading permission to the group including other tutorial participants

1. Click Group/User manager

2. Click Add group

3. - Type group name
   - Click OK button
1. Change the permission at ACL browser

Add users to the group made by you to define the group member

1. Select target group
2. Add users to the group
   - Select users
   - Click arrow button
   - Click close
1. Change the permission at ACL browser

Add group to access control list with its permission in order to show other participants your metadata

2. Click add icon

3. - Click the group field
   - Select managerXX:participants group

4. Click commit icon

Click ACL tab
1. Change the permission at ACL browser

ASK other people to access to your directory!
2. Data Export Wizard

<Precondition>
participants who imported some data in the file into target collection

<Mission>
Generate the file storing metadata in position schema using Data Export Wizard
2. Data Export Wizard

1. Click Data Export Wizard
2. Select target collection
3. Next
2. Data Export Wizard

- Excel file format and Delimited text format
  - Configuration information about excel file
  - Check attributes
2. Data Export Wizard

1. Type file name and Specify the location to save it

2. Finish

3. Success: Files have been saved [C:\myPOSITION.xlsx]
   File: 1 Sheet: 1

19/09/2011
2. Data Export Wizard

Open POSITION.xls file within the excel program!

If you don’t have excel program, please carry out these steps again so as to export to text file.