**IMPORT-EXPORT README**

This file gives an explanation of how you will be implementing the phase 3, also called

the “import-export” phase. There are two parts for phase 3: exporting and importing each of which is explained below.

**Exporting the Data- Due on: November 19th, 2014**

**Files to Submit: “G\*\*export\_to\_ta\_xml.xq” and “G\*\*\_export.xml”**

**Importing the Data- Due on: November 25th, 2014**

**Files to Submit: “G\*\*import\_from\_ta\_xml.xq”**

**(Here G\*\* represents your group name which you could find from the comments for phase 1 submission via Canvas)**

In the folder “phase3.zip”, you can find the following materials:

* TA-ER Diagram: This diagram represents the TA’s representation of the project. This is not your diagram and you do not need to follow this diagram. This diagram is given just so that you will understand the xsd file easily. **(NOTICE: You do not need to change your schema design to the TA’s tripster schema design).**
* ta\_tripster.xsd: This is the xsd created for the TA’s version of the schema. This schema is created so that you can import and export the data correctly. **(NOTICE: You do not need to change your data exchange format to the TA’s data exchange format; you will write an Xquery that converts from yours to theirs).**
* ta\_tripster.xml: This file represents a sample of the data in the TA’s format for the project. The xml file you submit for the first part of phase 3 will not be in this format. It will be in the format corresponding to your schema.
* DumpYourTable\_ToTAXML.java: In the first part of phase 3, you will be using this java file to dump the data you created in your oracle database into an xml.
* LoadTAXML\_toYourTable: In the second part of phase 3, you will be using this java file to load your oracle database with the final data we provide to you. We will be giving you the final data on November 19th which should be loaded in your database by 26th November.

**Explanation for Exporting the Data**

From the given Java source code (phase3.zip), your first task will be to *export* data from your database into to a database in which the TAs collect data from all groups. The TAs data exchange format is defined by **ta\_tripster.xsd**. You should proceed as follows:

* Set up the connect string, login info, etc. to your database in **DumpYourTable\_ToTAXML.java**.
* Run this program to make a single XML file called **G\*\*\_export.xml, (**prefixed with your group number, eg. naming it as G01\_export.xml if your group number is 01), that contains an XML representation of all of your tables and the data in them, in your data exchange format.
* Now write an Xquery that converts from your data exchange format to the TAs data exchange format that is defined in **ta\_tripster.xsd**. Put this Xquery in the file **G\*\*export\_to\_ta\_xml.xq**.
* As your write your Xquery that converts, note that there is a field called “source”. You should set this field to the your group id, eg, G01 if your group number is 01, in order to avoid collisions among contents that we gather from all groups. The contentSource is also referenced by foreign keys for each Content.
* You should populate all of the mandatory fields with “reasonable” default values, even if your database doesn’t have the field. For instance, if you don’t have the concept of an affiliation, give these the same default value.
* If you and your group didn’t come up with an interesting set of users, rateTrip and rateContent information previously, you should add more interesting entries to your database before you export.

Submit **G\*\*export\_to\_ta\_xml.xq** and **G\*\*\_export.xml** via Canvas **by November 19th, 2014.**

After you submit, the TAs will apply the Xquery you gave in **G\*\*export\_to\_ta\_xml.xq**  to the XML data you gave in **G\*\*export.xml** and produce some XML data in their data exchange format (the one defined in **ta\_tripster.xsd**) . The TAs will then gather the data from all groups and create an XML Master File that will provide a testbed for everybody.

**Explanation for Importing the Data**

* You’ll build an import pipeline to go the other way. Write (and upload to Canvas by November 25 in the file **G\*\*import\_from\_ta\_xml.xq**) an Xquery that essentially “reverses” the process of the Xquery in **G\*\*export\_to\_ta\_xml.xq**. Its eventual input will be the TAs’ XML Master File. Until that file is available you can use **ta\_tripster.xml** for tests. Assume that its output will be written to **G\*\*\_import.xml**.

* Your schema will differ so for missing attributes you’ll need to specify a reasonable default.
* **An example is that passwords aren’t exported/imported. You should set to a default value and force users to change password upon first login.**
* For attributes that you don’t support, you may ignore the corresponding data in the Master File. In some cases this will mean you’ll need to merge items (e.g., if you don’t support discrete albums for one trip, you should import all relative content information to a single trip album).
* The provided program **LoadTAXML\_toYourTable.java** will take the file **G\*\*\_import.xml** that was previously produced by your Xquery in **G\*\*import\_from\_ta\_xml.xq.** It will create from this XML file a series of .CSV files, one for each table, to be loaded into your relational database. You can use [Oracle SQL Developer](http://www.oracle.com/technetwork/developer-tools/sql-developer/downloads/index.html) to load the tables. (Alternatively there is a sqlldr loader program, but it isn’t installed on Eniac so you may as well use SQL Developer.)