MINT MAPPING TOOL

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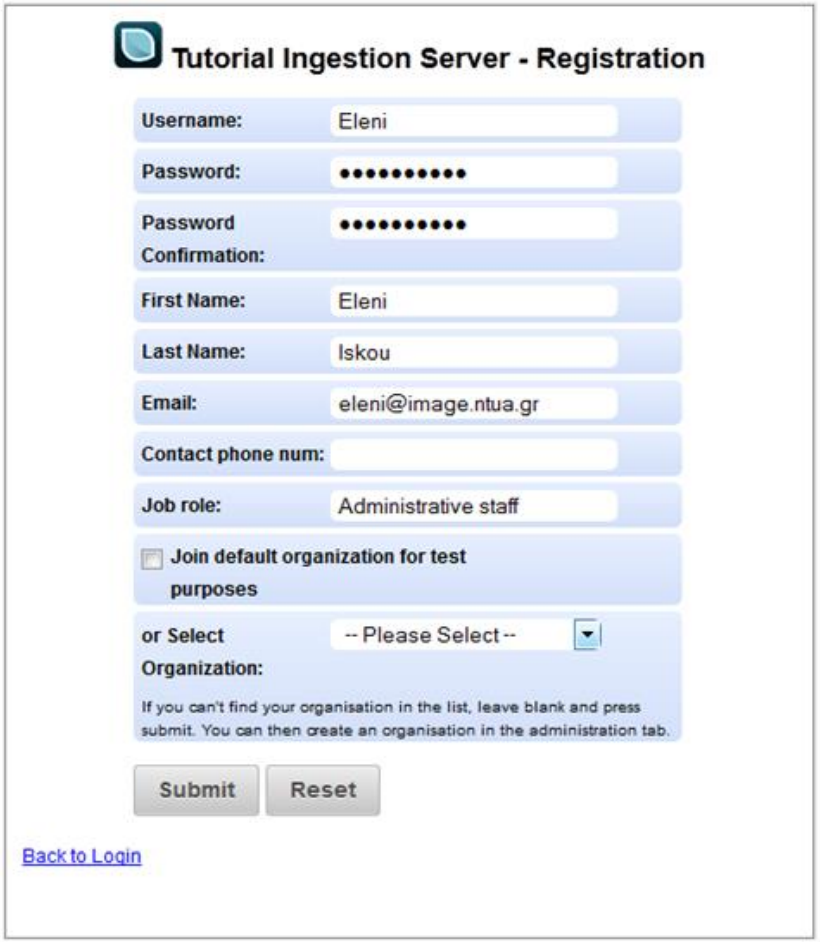
User Administration

MINT2 – Instance for Sounds

- http://mint-projects.image.ntua.gr/tutorial
- Click on “I want to register”

User Registration

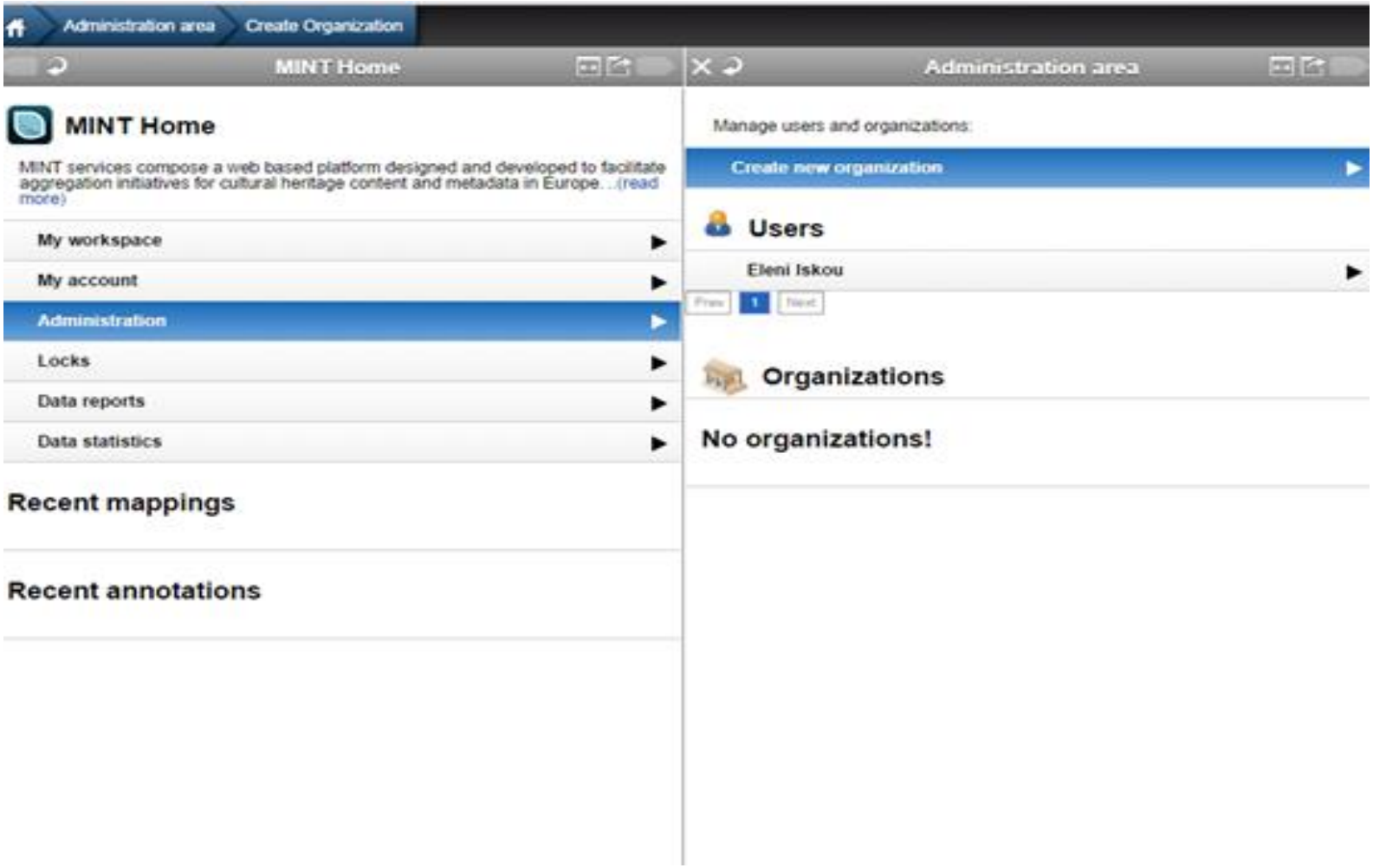
- Fill in the form and click on “Submit”



Exercise 1 - Create new user

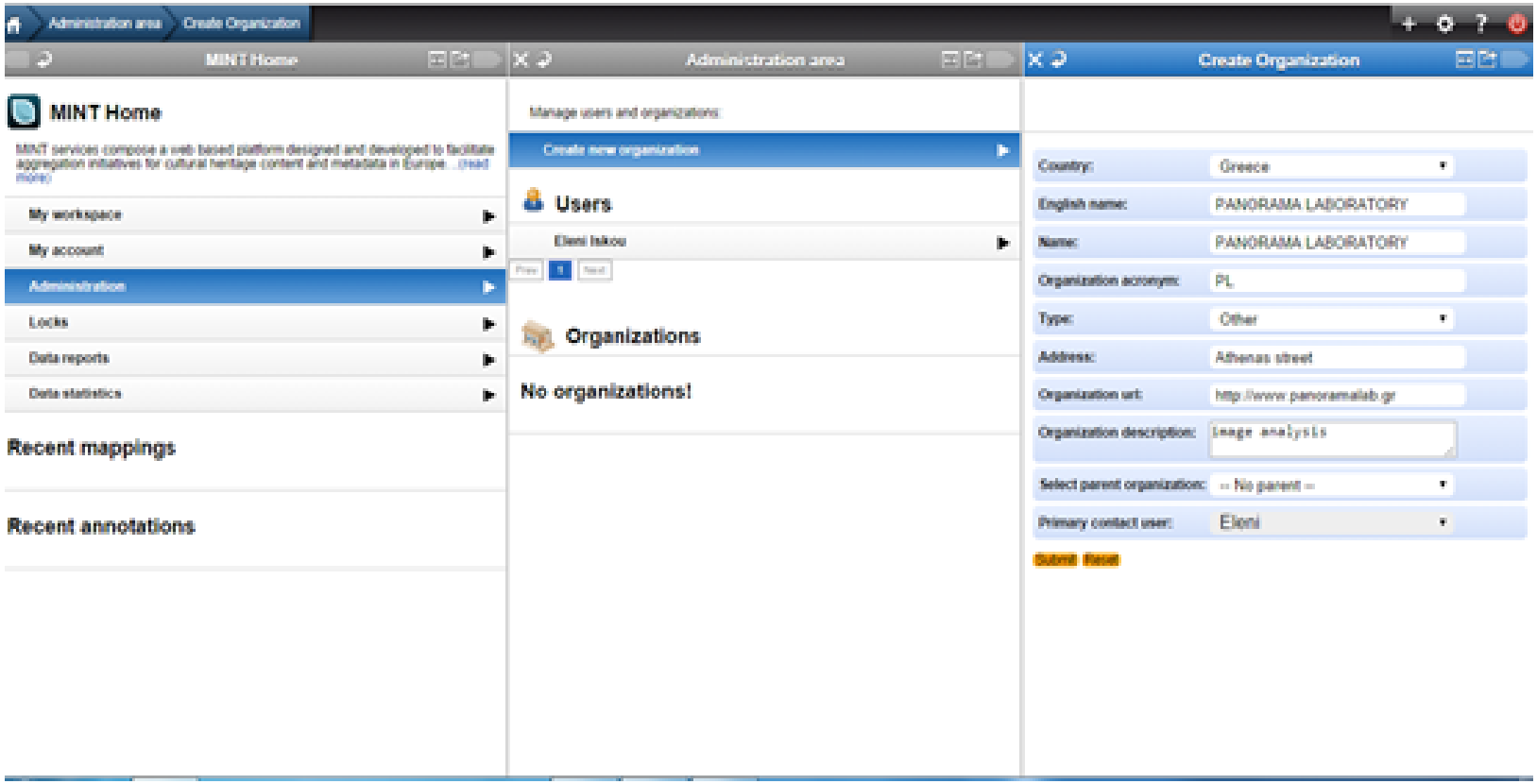
- Create a new user with the following characteristics:
  - Username: name_surname
    - E.g. Username
  - The new user is not related to a specific organization

Create new organization



Create new organization (Cont.)

- Fill in the form and click on “Submit”

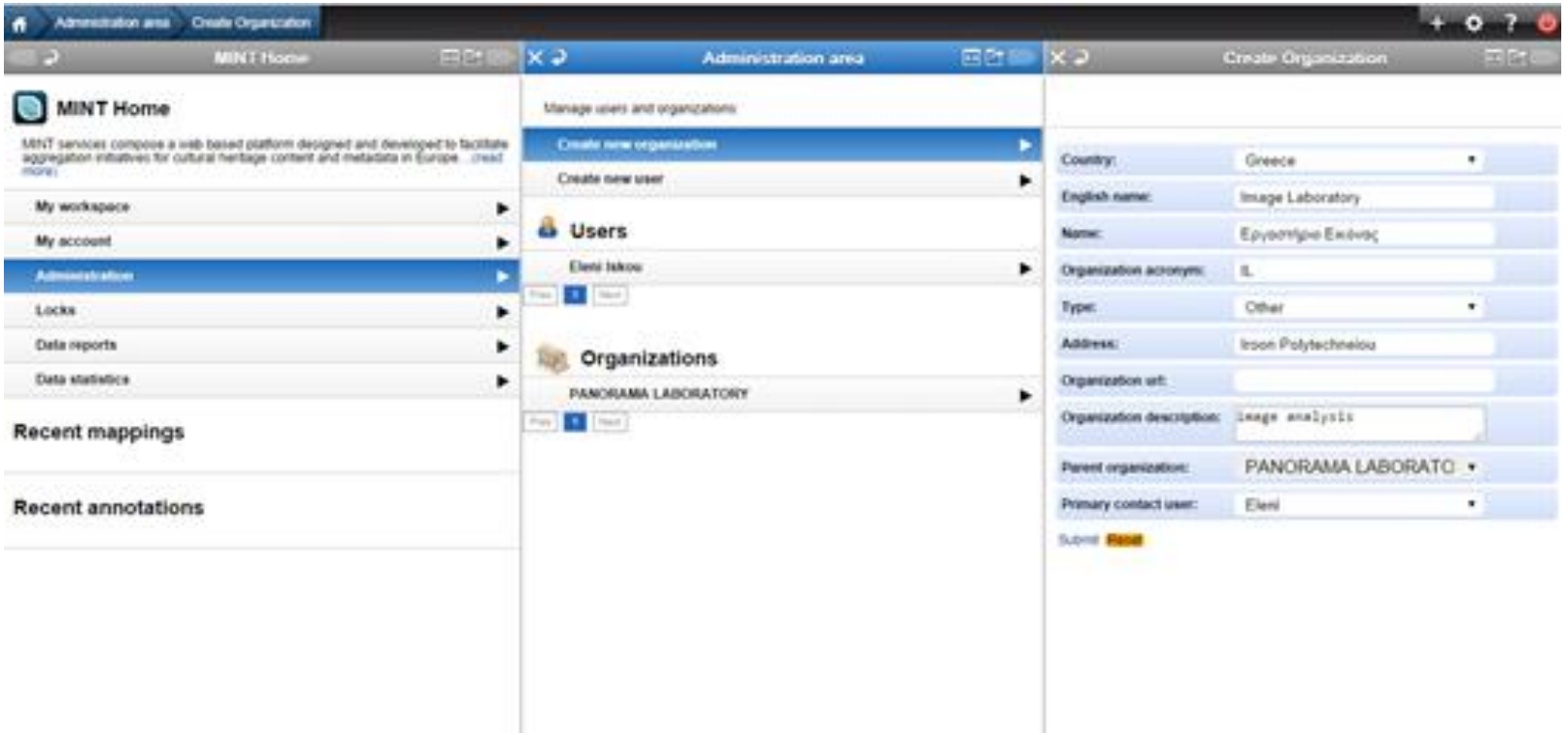


Exercise 2 - Create new organization

- Create a new organization with the following characteristics:
  - Country: your country
  - English name: name_surname_org
    - E.g. Myorganization
  - Parent Organization: none (no parent)
  - Primary contact user: yourself

Create children organizations

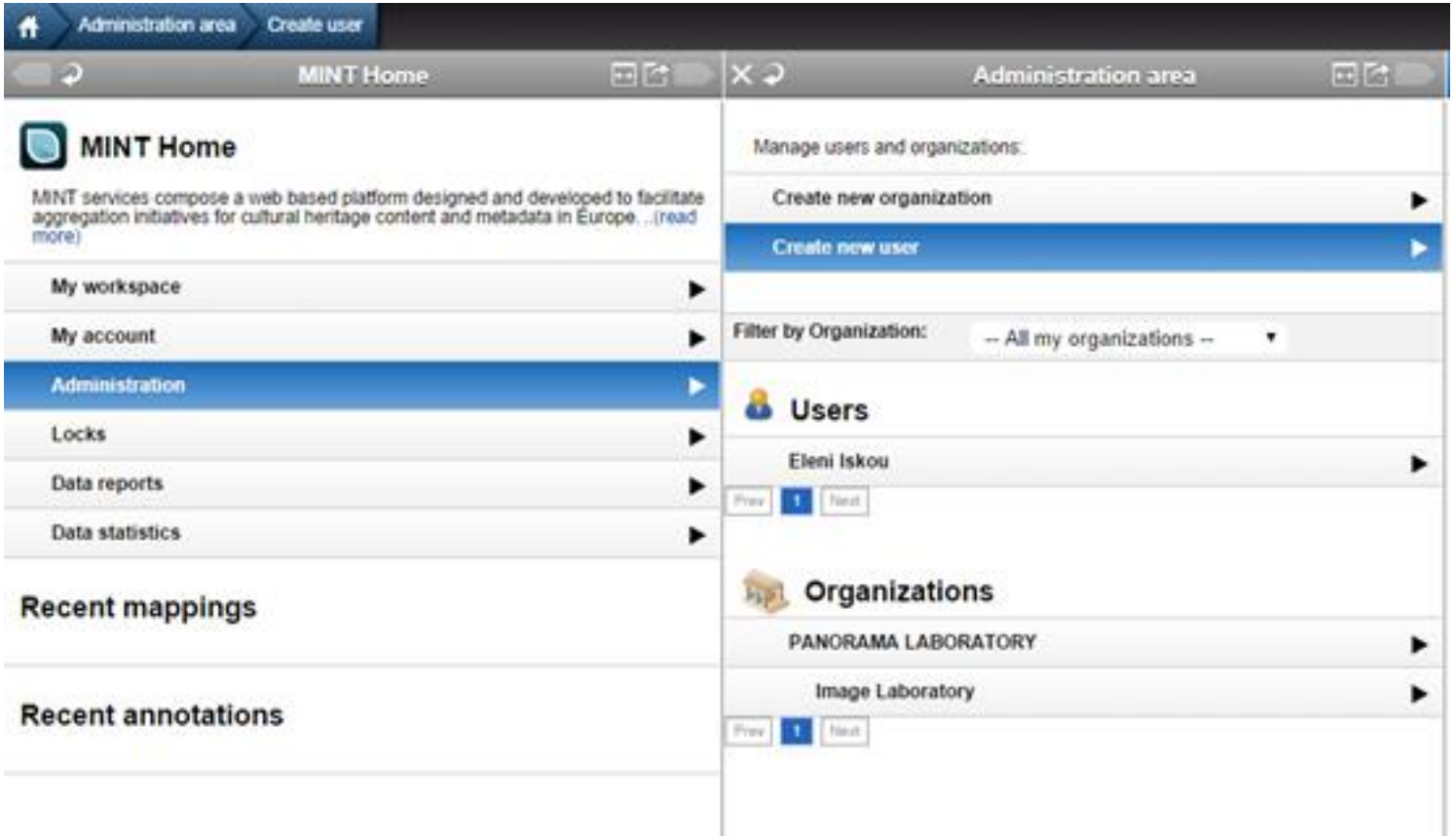
- Create a new organization and this time set the parent organisation



Exercise 3 – Create sub-organization

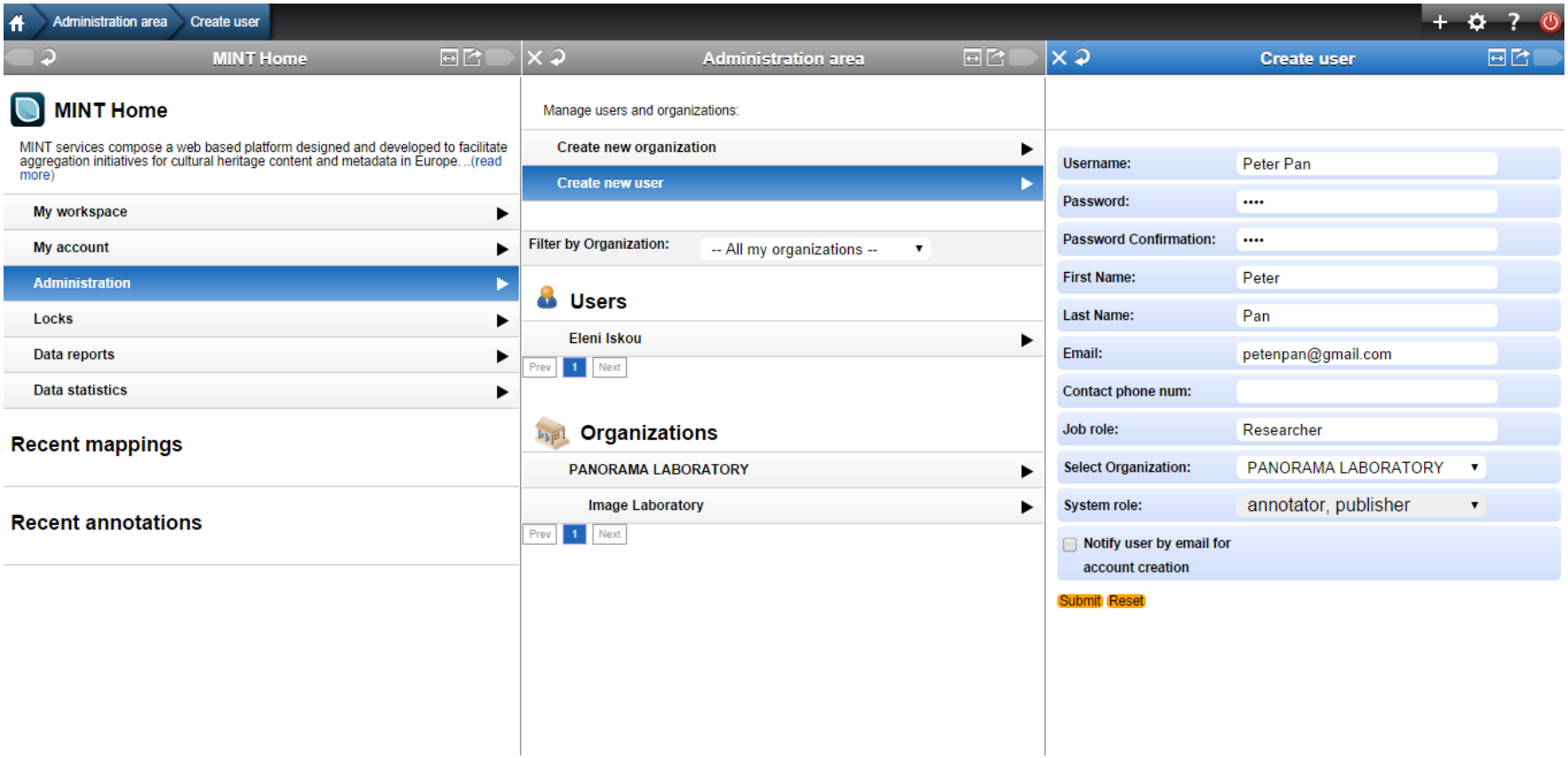
- Create a new organization with the following characteristics:
  - Country: your country
  - English name: name_surname_org2
    - E.g. my2ndorganization
  - Parent Organization: Myorganization
  - Primary contact user: yourself

Create new user for Parent organization



Create new user

- Fill in the form and click on “Submit”



Exercise 4 - Create new user from the administration panel

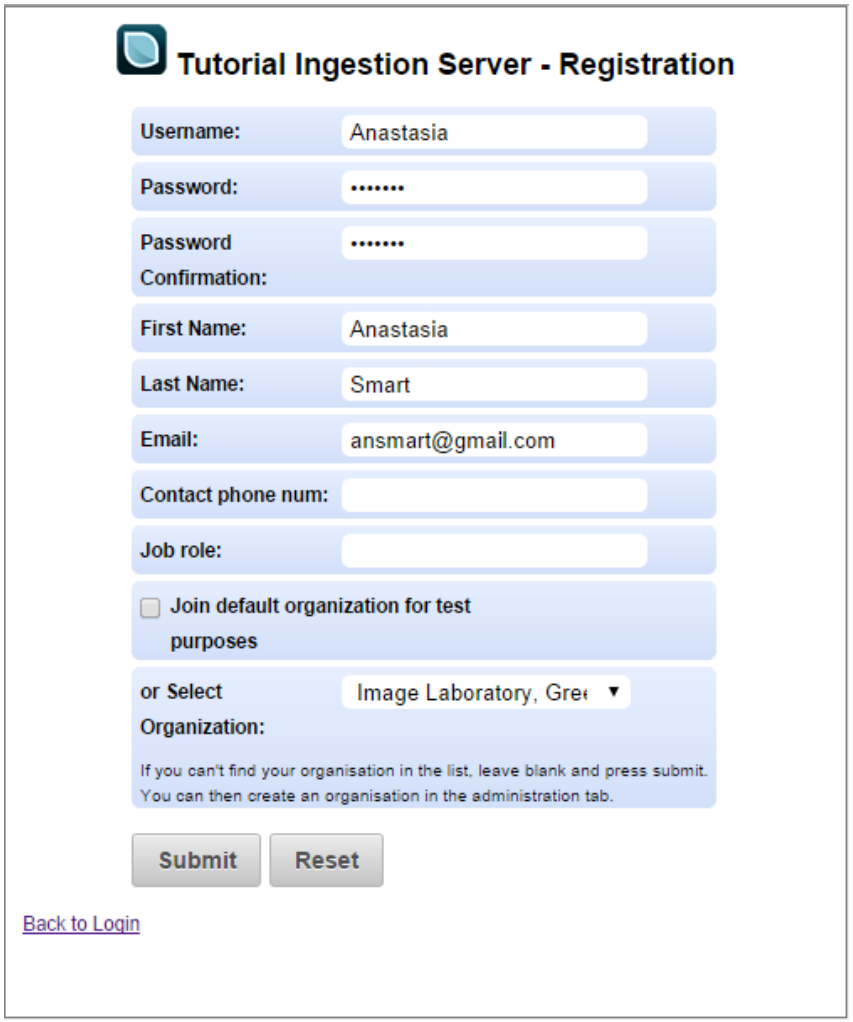
- From the administration panel, create a new user with the following characteristics:
  - Username: name_surname2
    - E.g. 2nduser
  - The new user is related to the organization name_surname_org
    - E.g. Myorganization
  - The new user has the role of Data Viewer

User registration under organization (children organization)

- http://mint-projects.image.ntua.gr/tutorial/
- Click on “I want to register”

User registration under organization (Cont.)

- Fill in the form
- Select organization
- Click on “Submit”

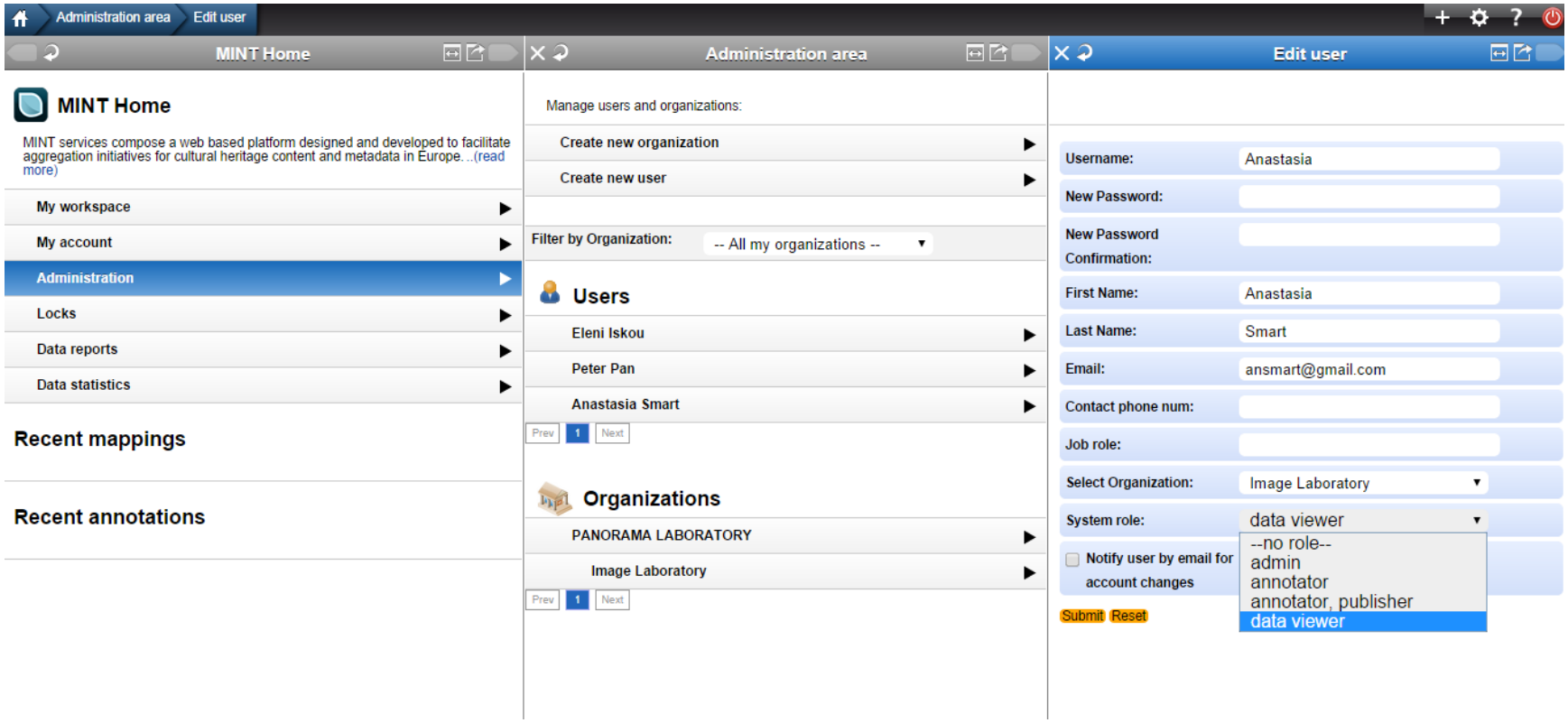


Exercise 5 - Create new user

- Create a new user with the following characteristics:
  - Username: name_surname3
    - E.g. user3
  - The new user is related to the organization name_surname_org2
    - E.g. my2ndorganization

Rights assignment to user

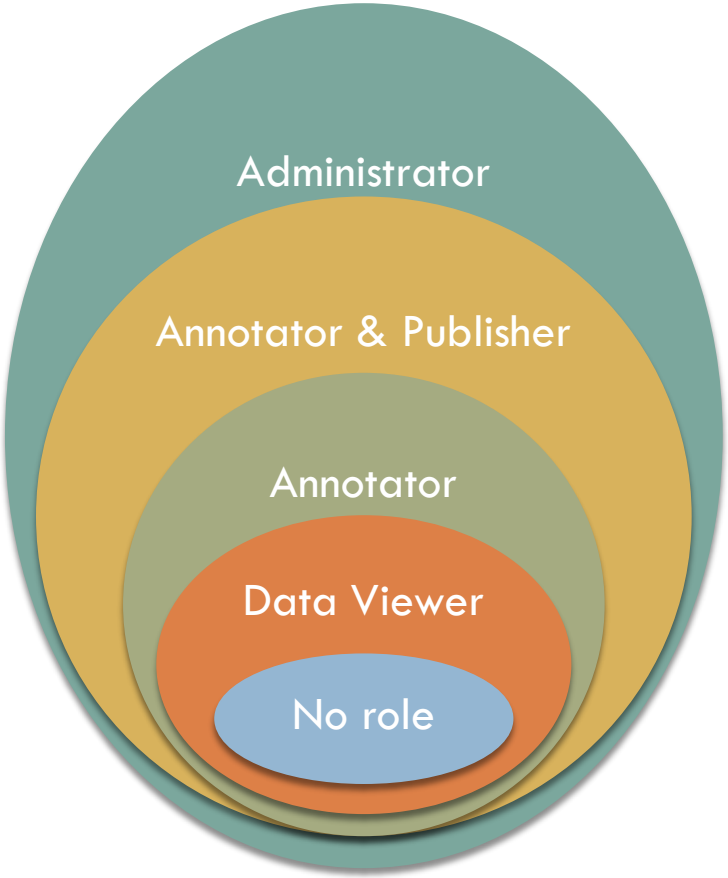
- The administrator has to assign rights to user



User roles

- **Administrator:** This user can create/update/delete users and children organizations for the organization he is administering.
- **Annotator & Publisher:** This user has all the rights of an annotator as well as rights to perform final publishing of data.
- **Annotator:** This user can upload data for his/her organization (and any children organizations) and perform all available data handling functions (view items, delete items, mappings etc) provided by the system, apart from final publishing of data.
- **Data Viewer:** This user only has viewing rights for his organization
- **No role:** A user that has registered for an organization but has not yet been assigned any rights.

User roles


Administrator
Annotator & Publisher
Annotator
Data Viewer
No role

Exercise 6 – Assign role to existing user

- Register with your default username (name_surname)
- Assign to user name_surname2 the role of Annotator
- Assign to user name_surname3 the role of Annotator and Publisher

Exercise Results

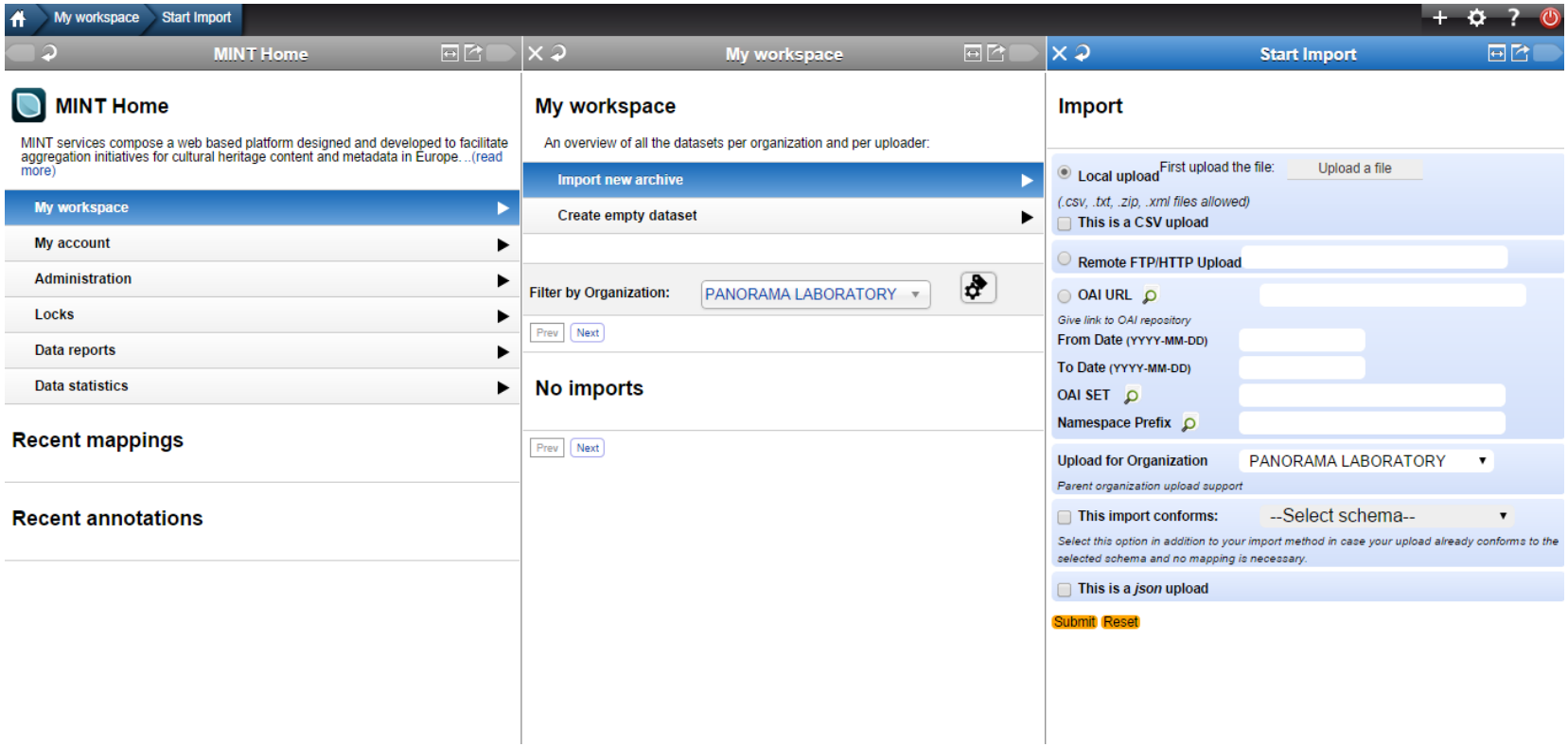
User	Organization	System Role
name.surname	name.surname.org	Administrator
name.surname2	name.surname.org	Data Viewer
name.surname3	name.surname.org2	Annotator & Publisher

Metadata Import

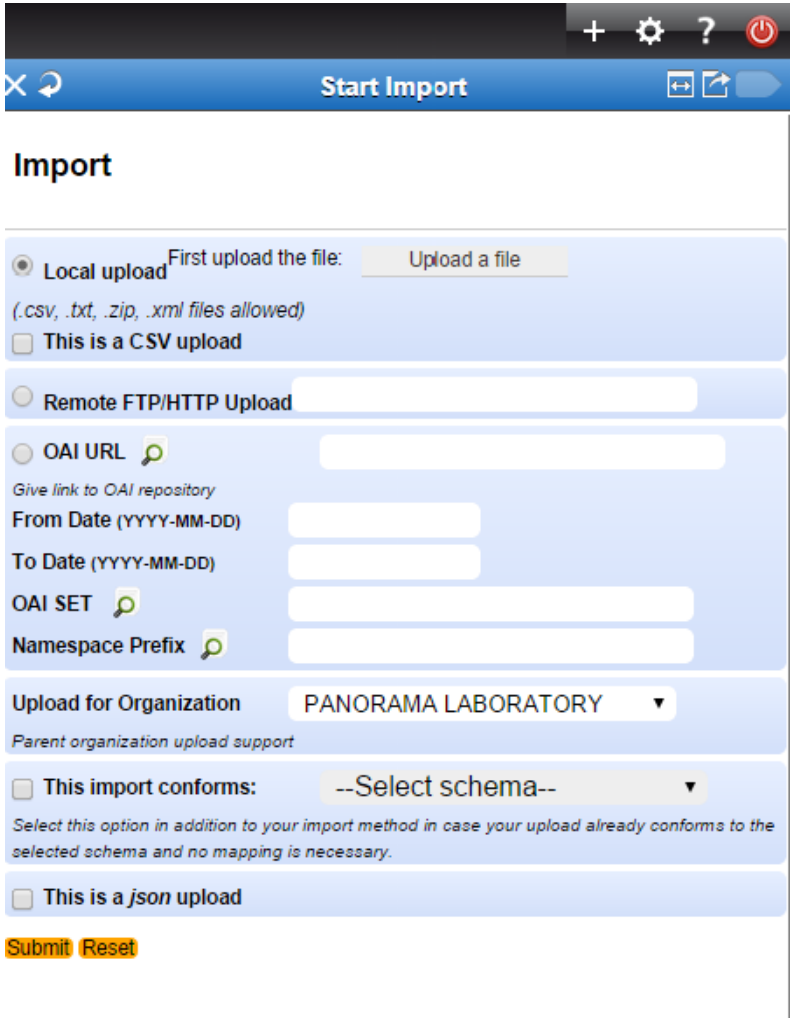
Import metadata

- Formats
  - CSV
    - UTF-8 Encoding
  - XML file containing metadata for one or many records
  - ZIP files containing an XML file per cultural heritage object
- Import Recommendations
  - ZIP files containing no more than 30.000 files

Import metadata



Import metadata (Cont.)

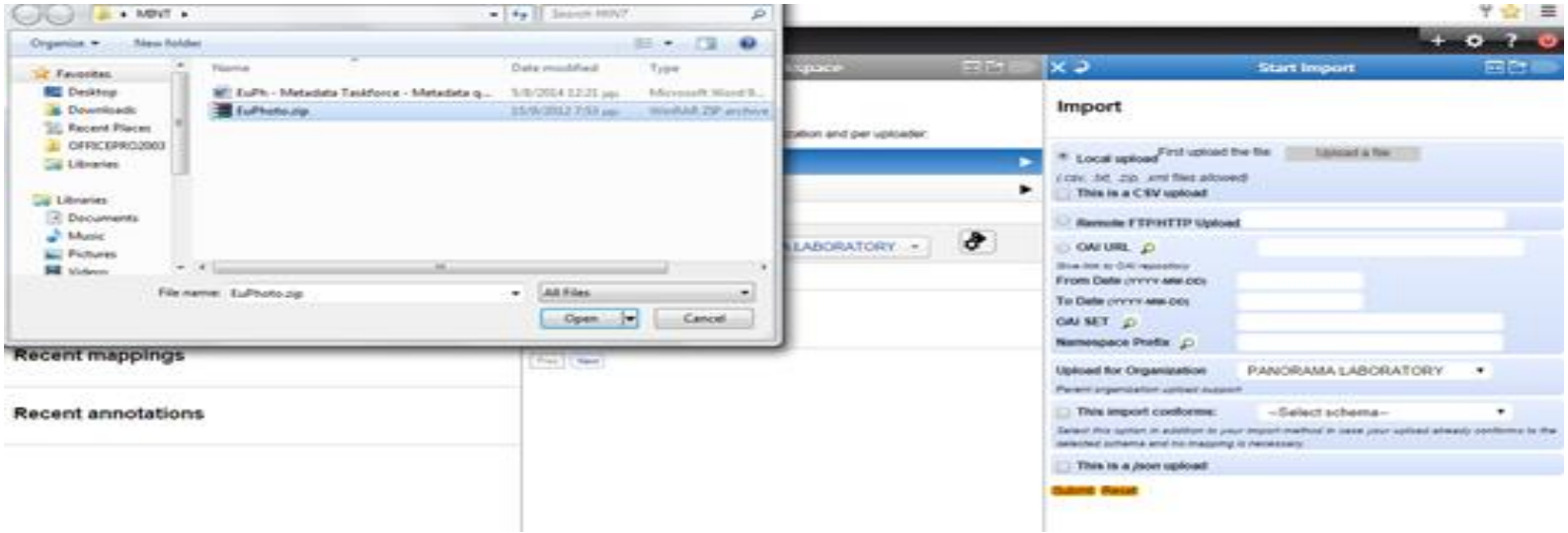


Exercise 7 – Import Metadata

- Import the file Euphoto.zip either via local upload

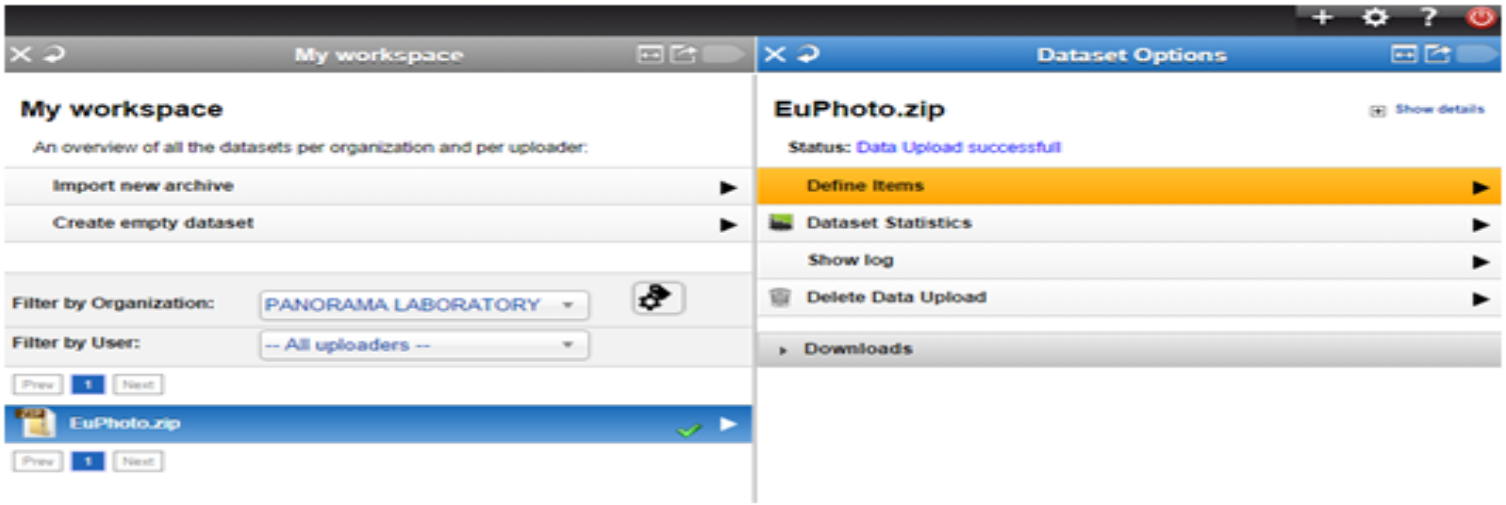
Import metadata (Cont.)

- Import the file containing your data either via local upload, or via Remote FTP/HTTP , OAI URL and click “Submit” (Different upload protocols are supported)



Import metadata

- By selecting on the uploaded file from “My workspace” view, the “Dataset Options” appear
- After importing a file to MINT Ingestion platform it can be viewed in “My Workspace menu” either with a green ✔ tick that indicates that the import was successful or with a red ✖ that indicates a problem during upload

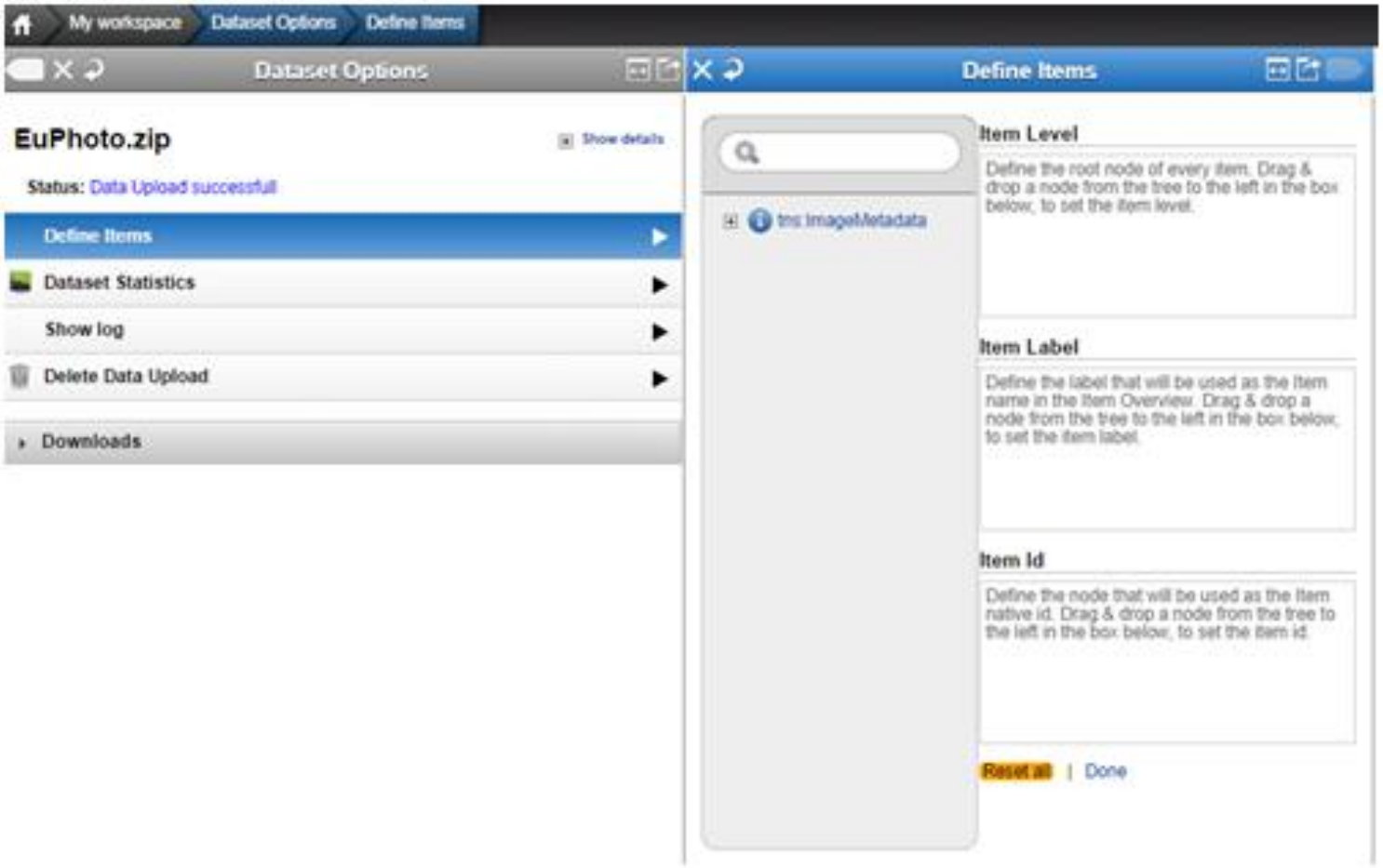


Define Items

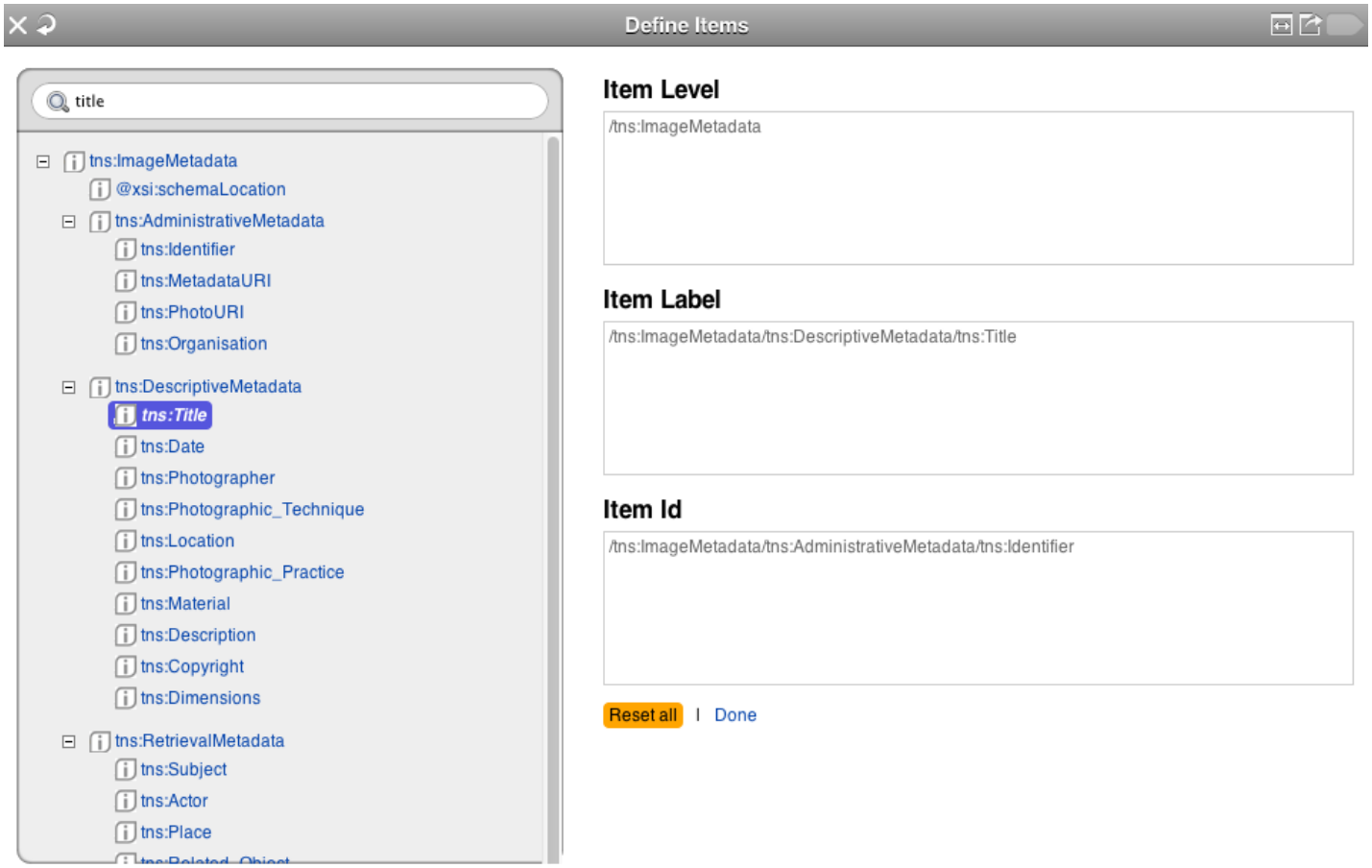
- Set
  - the item level of your import (root item)
  - The item label of your import (title)
  - The identifier of your import

  by dragging and dropping the appropriate elements to the appropriate textboxes.

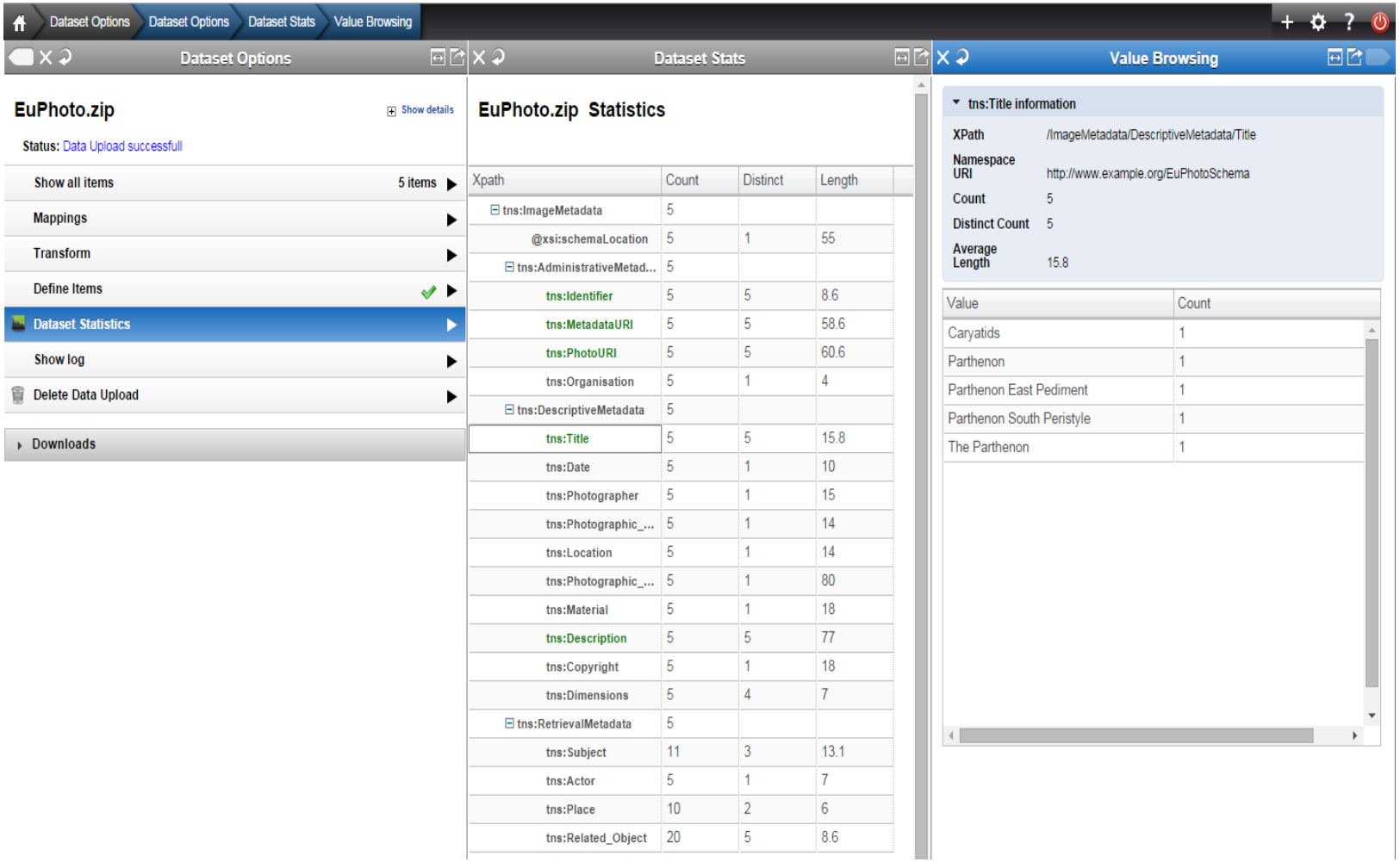
Define Items (Cont.)



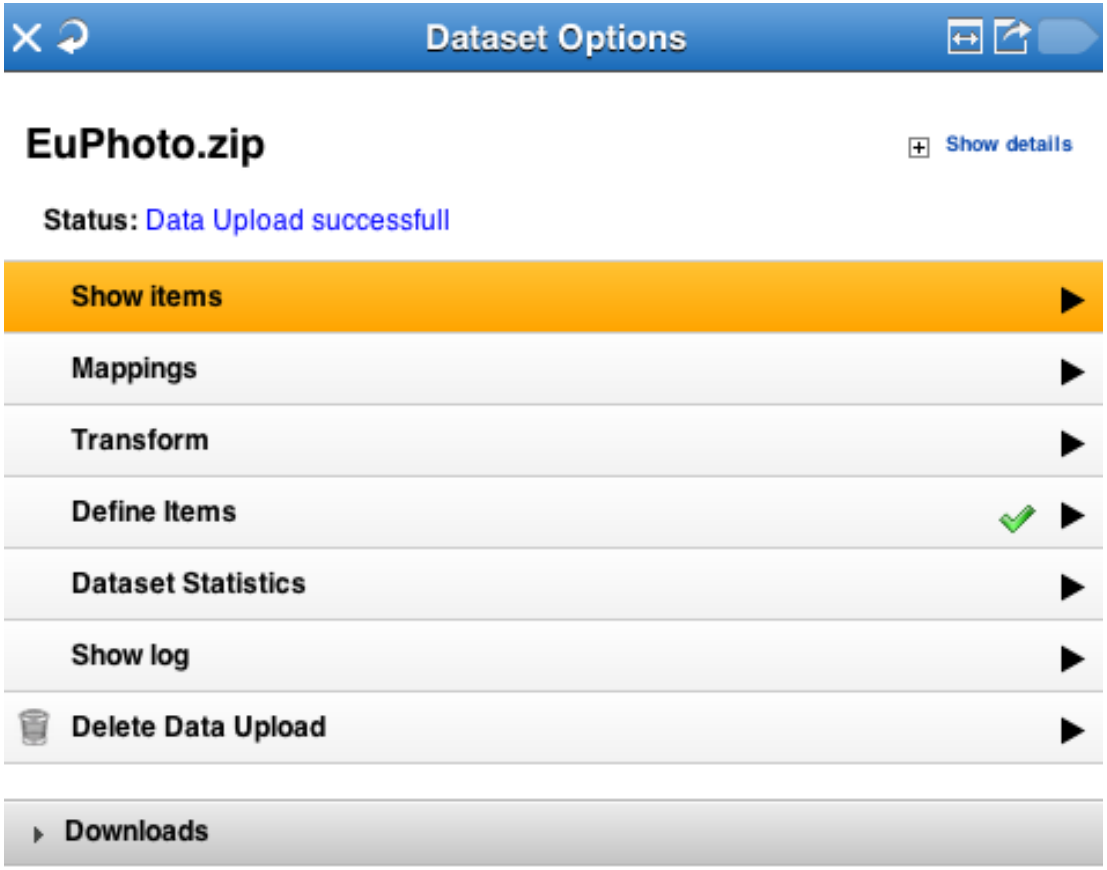
Define Items (Cont.)



Dataset Statistics

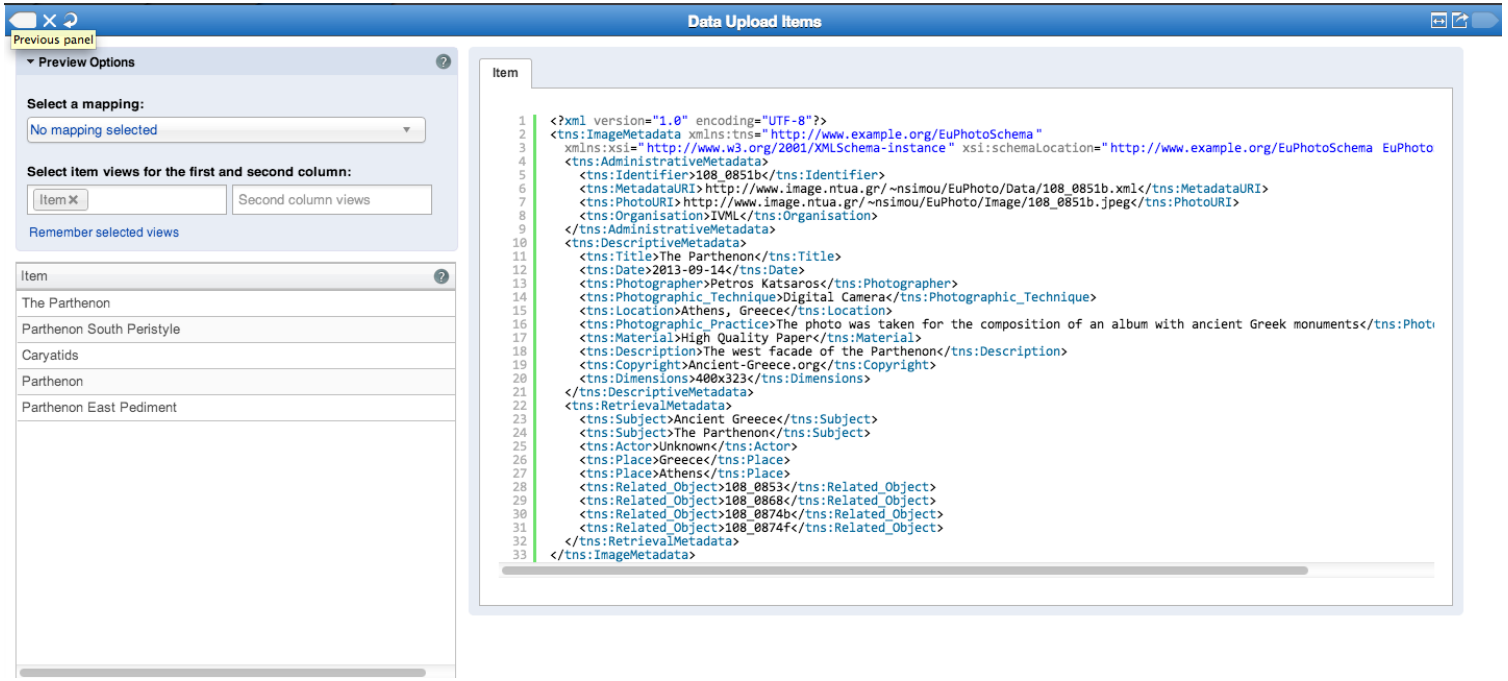


Show all items



Show all items (Cont.)

- Select a mapping (not applicable at this point)
- Select the previews you like
- Click on an item from the list



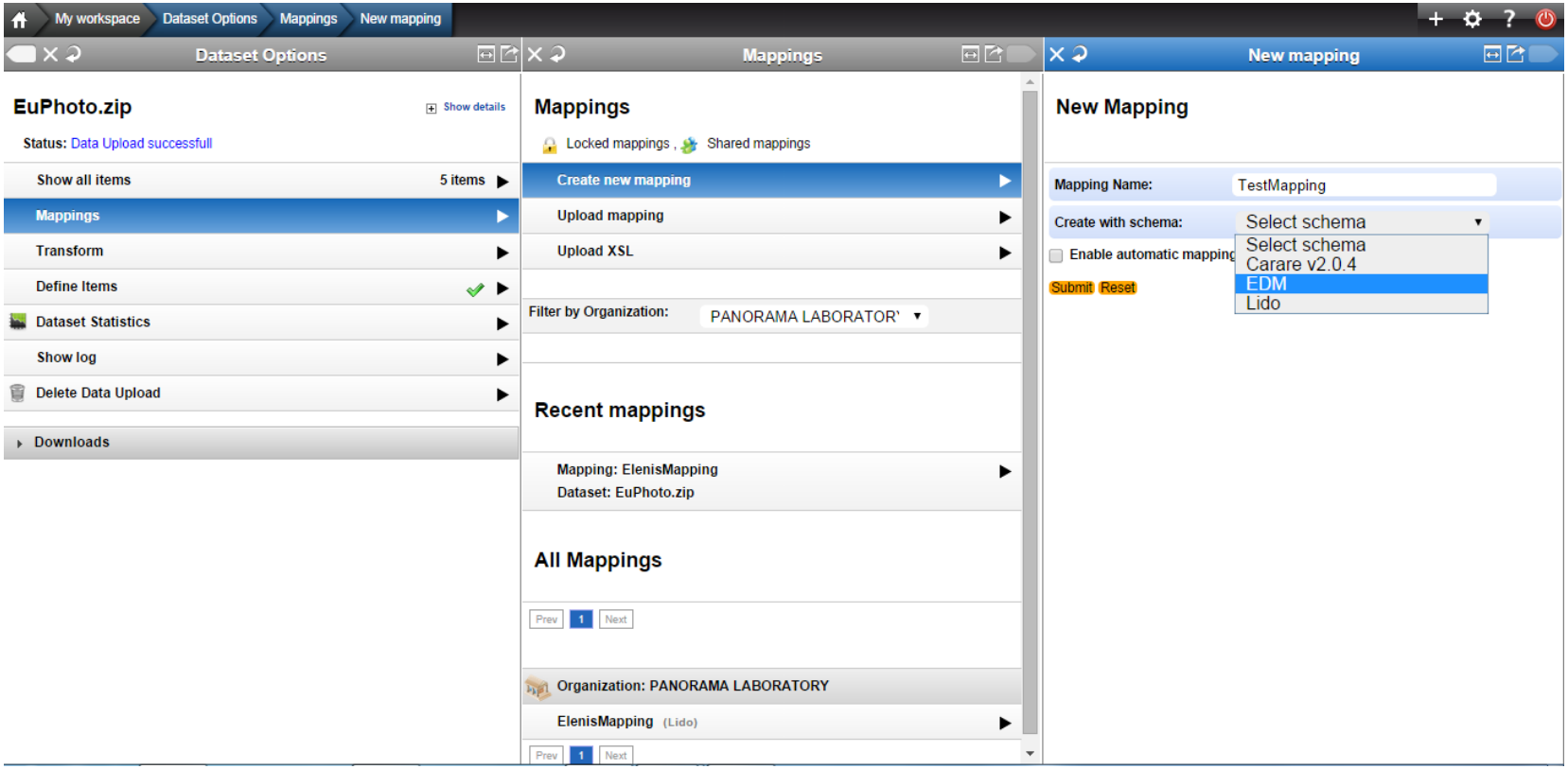
Exercise 8 – Import Metadata

- Set the item level, item label, and the identifier of the EuPhoto-Extended.zip import from:
  - tns:ImageMetadata
  - tns:Title
  - tns:Identifier
- View the statistics of the imported metadata from Dataset Options → Dataset Statistics
- View the imported items from Dataset Options → View all items

Create New Mapping

Create new mapping

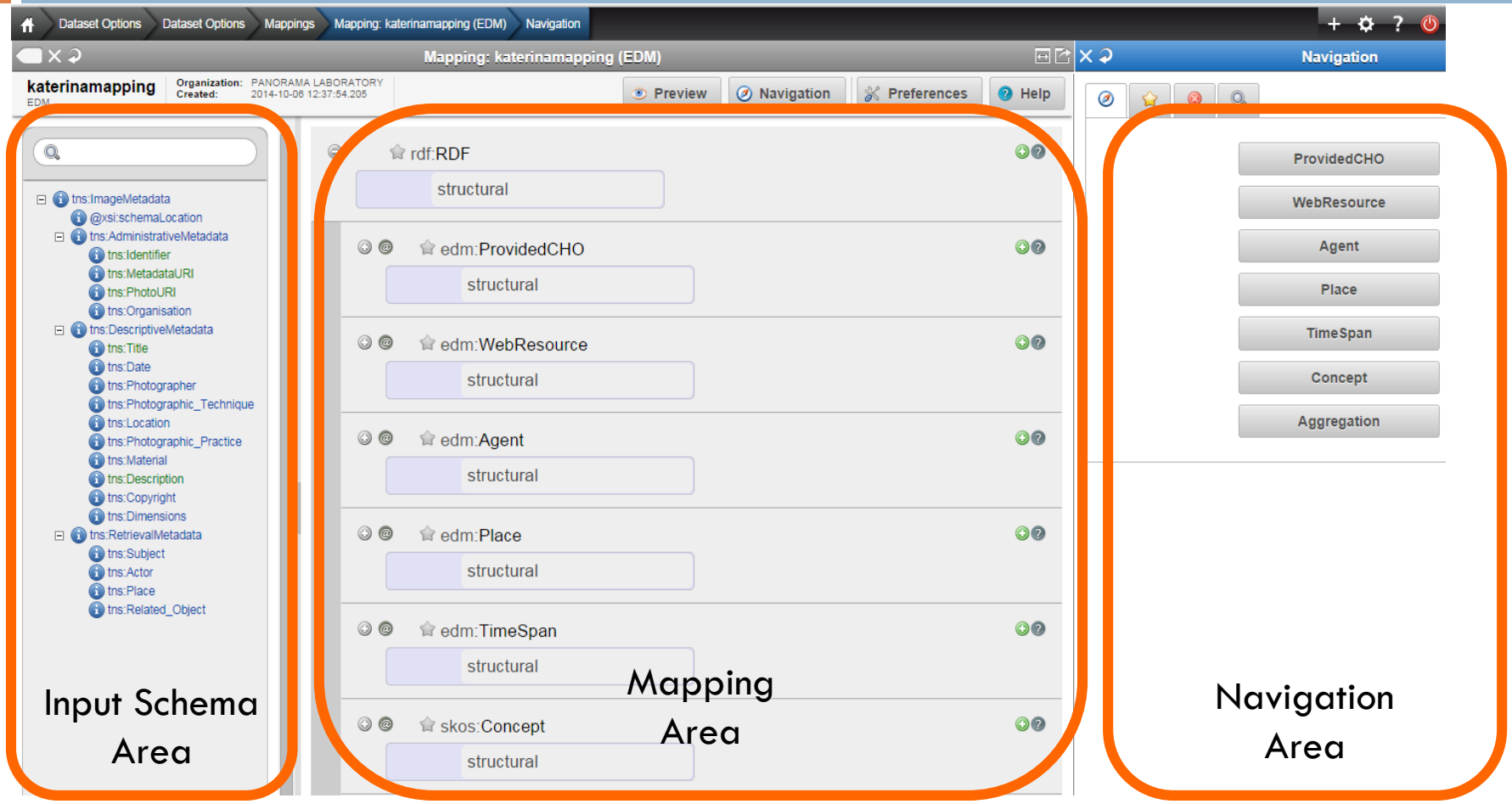
- Select the schema to which you want to map your metadata



Exercise 9 – Create new mappings

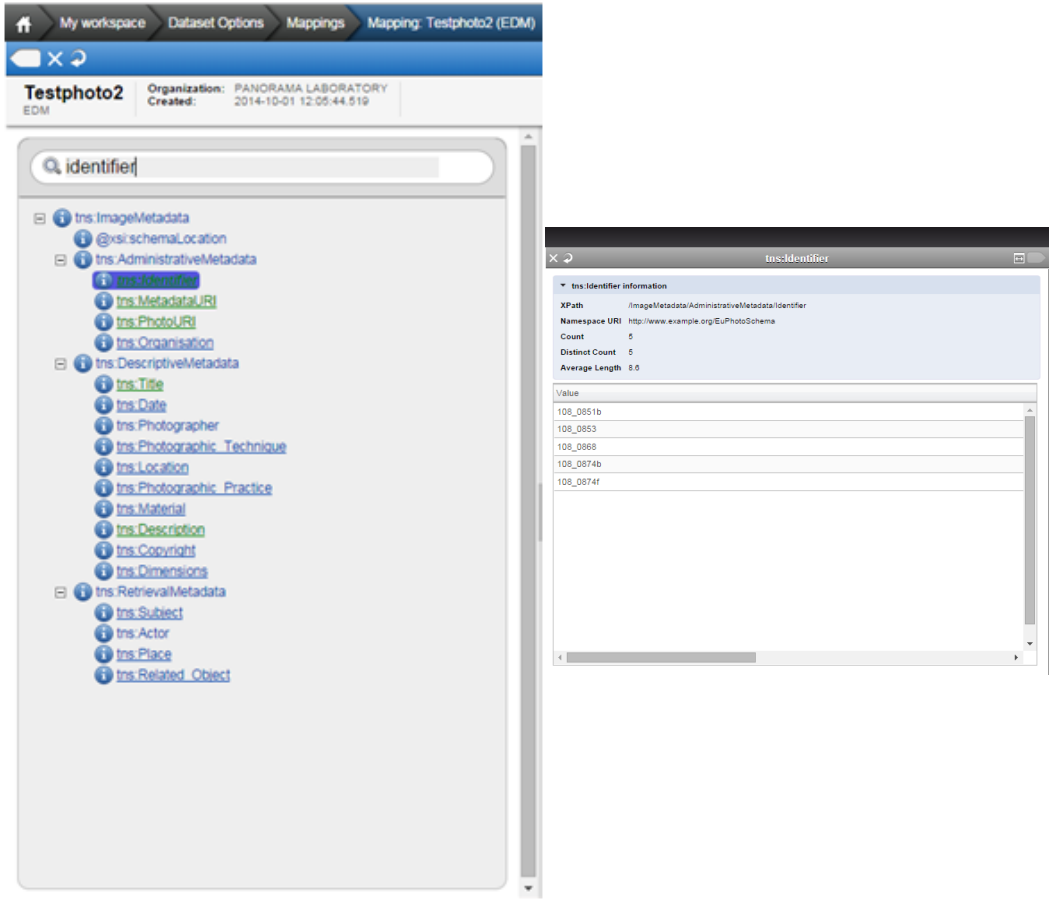
- Create a new mapping to the EDM schema with the following title:
  - yourName_surname_mapping

Mapping editor

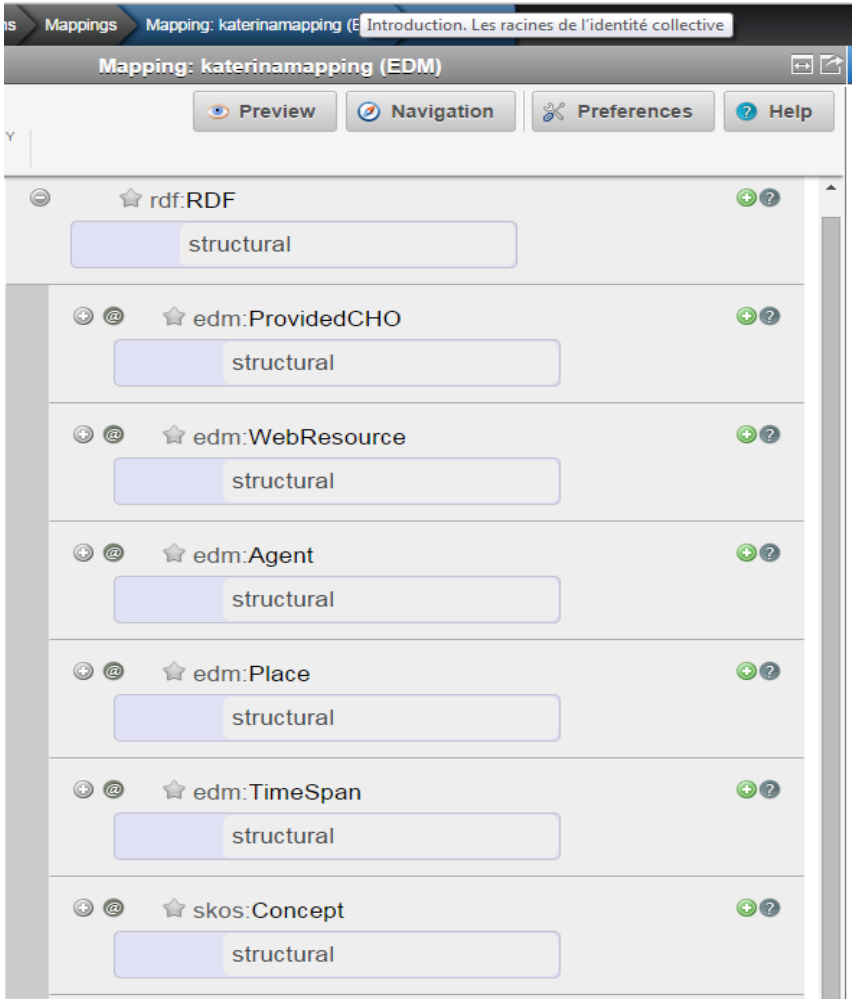


Input Schema Area

- The tree represents the snapshot of the XML schema that is used as input for the mapping process. The user is able to navigate and access element statistics and also to search the tree by using the text field on the top.

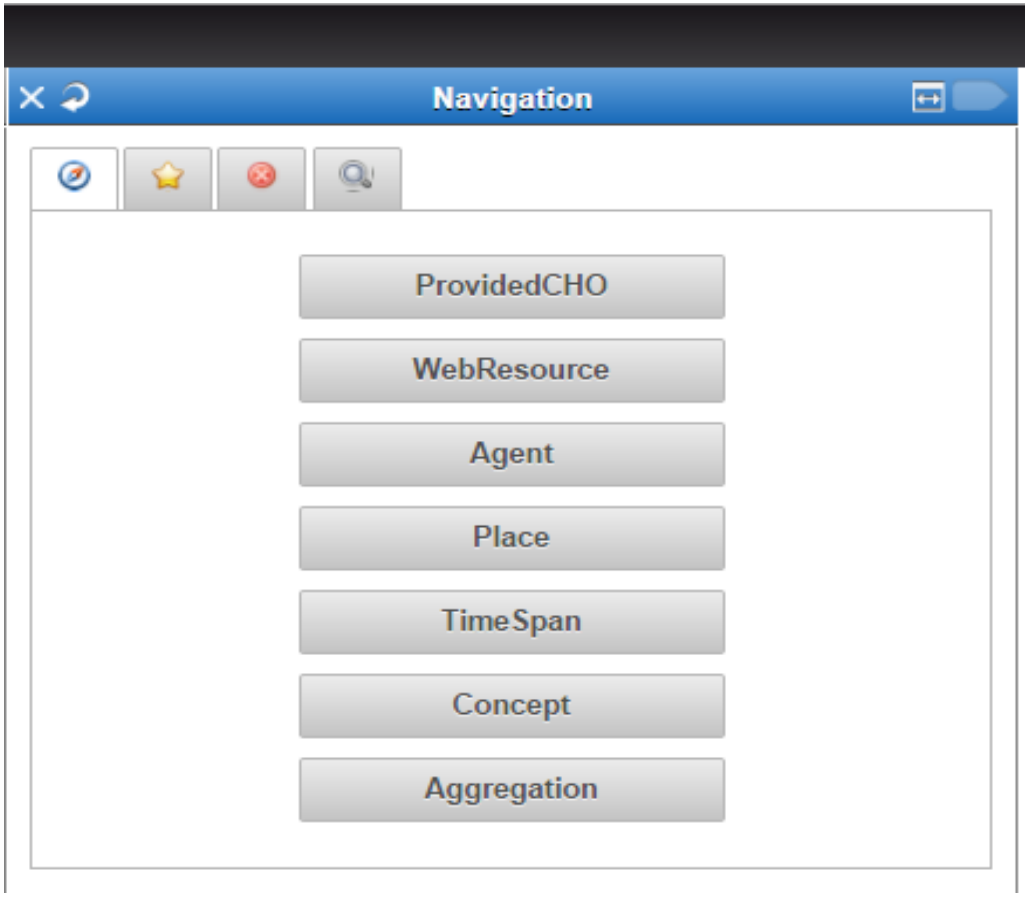


Mapping Area



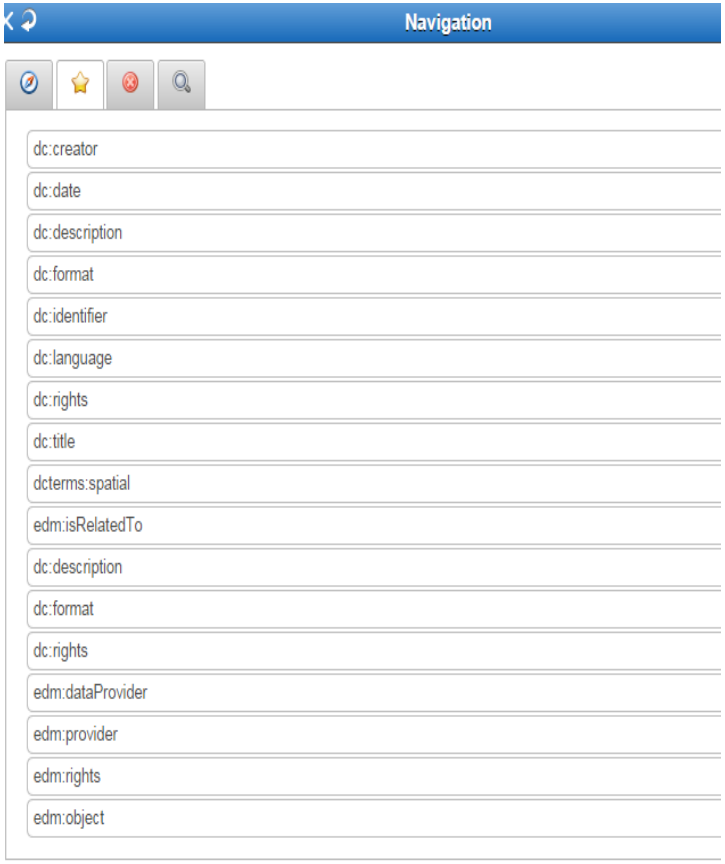
Navigation Area

- Shortcuts to the EDM classes



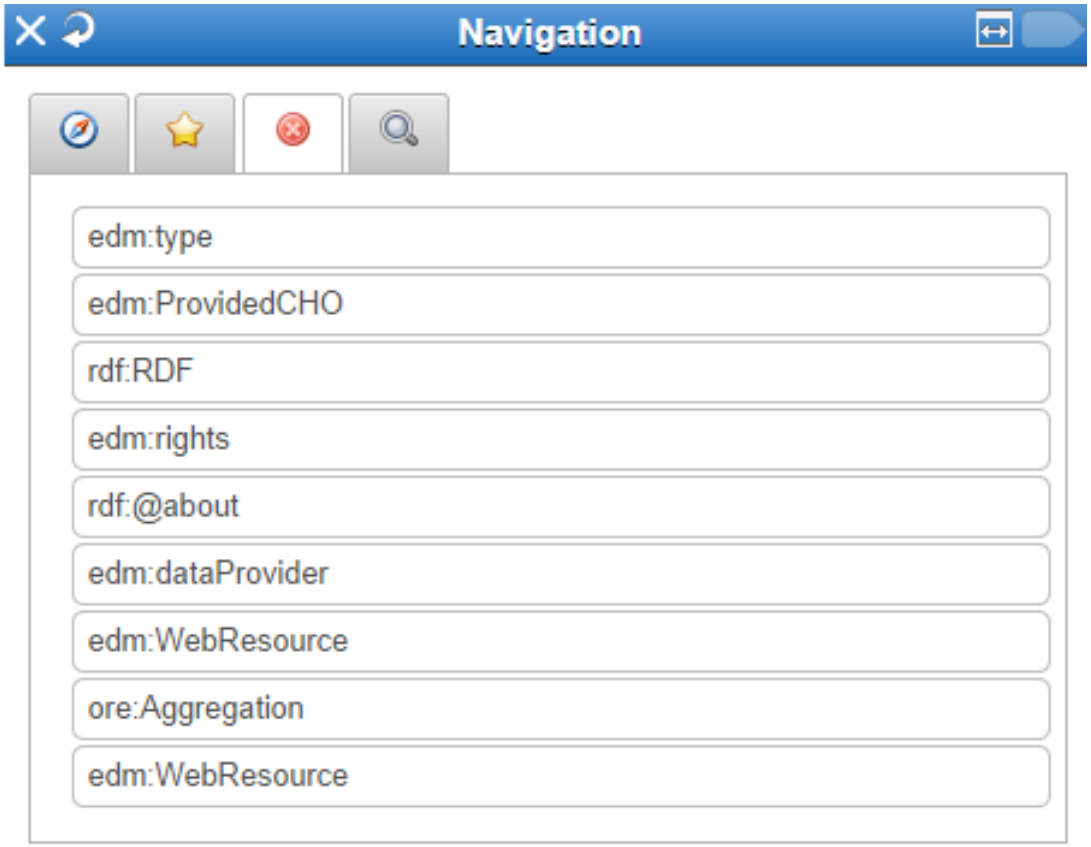
Navigation Area (Cont.)

- Bookmarks
  - A user can set/unset a bookmark to an element by clicking on the star ( ) on its right



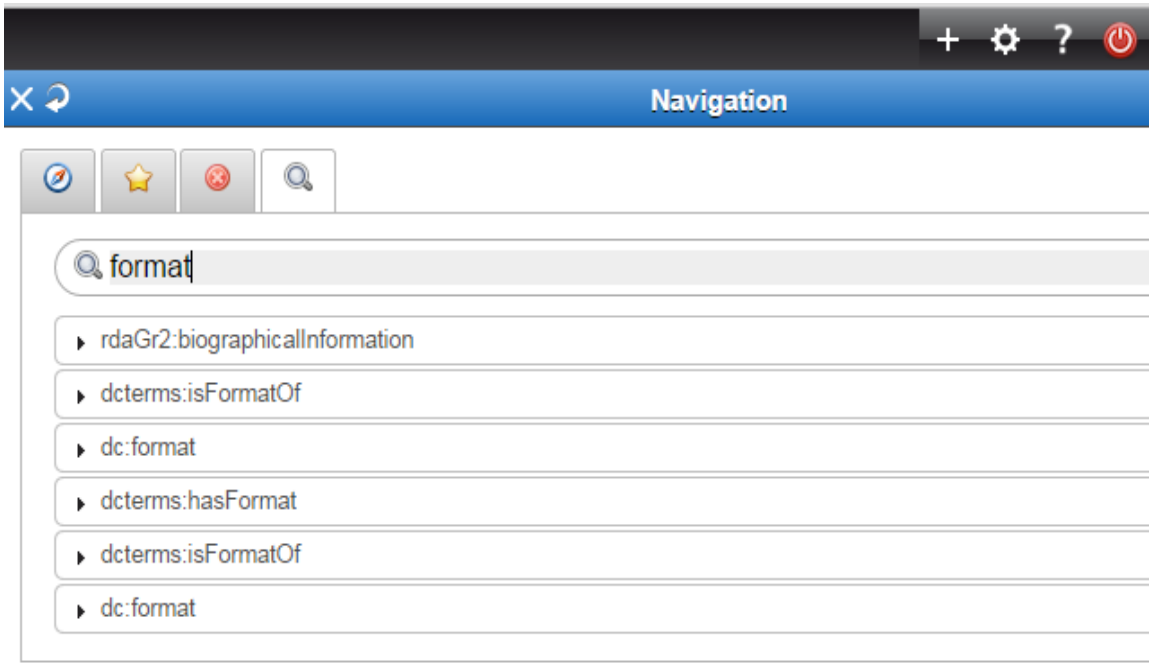
Navigation Area (Cont.)

- Mandatory elements that are not mapped



Navigation Area (Cont.)

- Search the target schema



Mapping editor notation (Cont.)

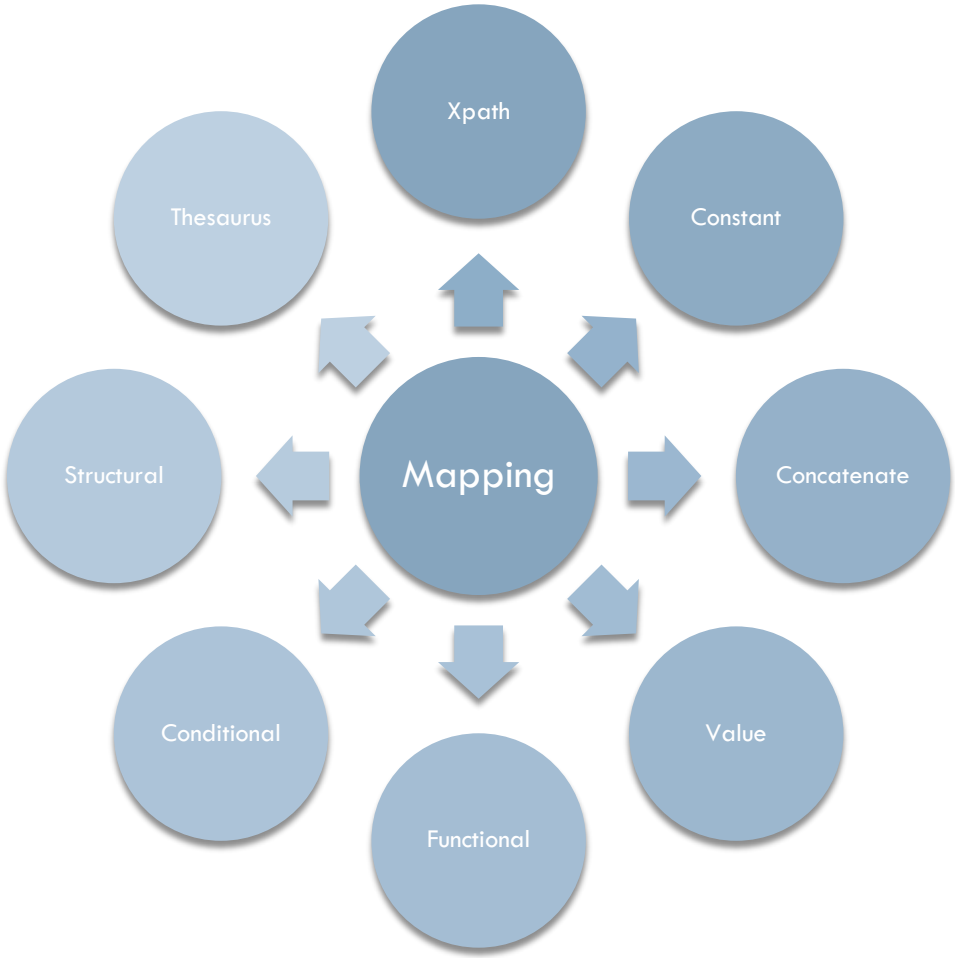
On the top of each element in the mapping area – the schema prefix and the element name are shown – (eg. edm: ProvidedCHO) there are some indicators described in the following table:

Icon	Description
	Appears on the top left of an element to indicate that it is complex and thus by clicking on it you can view its sub-elements.
	Appears on the top left of an element to indicate that it has attributes. By clicking on it the attributes are displayed.
	Appears on the top left of an element to indicate that it has mandatory attributes that have not been assigned yet. By clicking on it the attributes are displayed.
	Appears on the top left of an element to indicate that attributes have been assigned to it.
	Appears on the top left of an element to indicate that it is mandatory and a value has to be assigned to it.
	Appears on the top left of an element to indicate that a value has been assigned to it.
	Appears on the top left of an element to indicate that it is not in the bookmarks. By clicking on it the star turns yellow and the element is added in the bookmarks.
	Appears on the top left of an element to indicate that it is in the bookmarks. By clicking on it the star turns grey and the element is removed from the bookmarks.
	Appears on the top right of an element to indicate that its cardinality can be greater than 1. By clicking on it a new element is added.
	Appears on the top right of all elements. By clicking on it you get the schema's documentation about that element.

Exercise 10 – Navigation

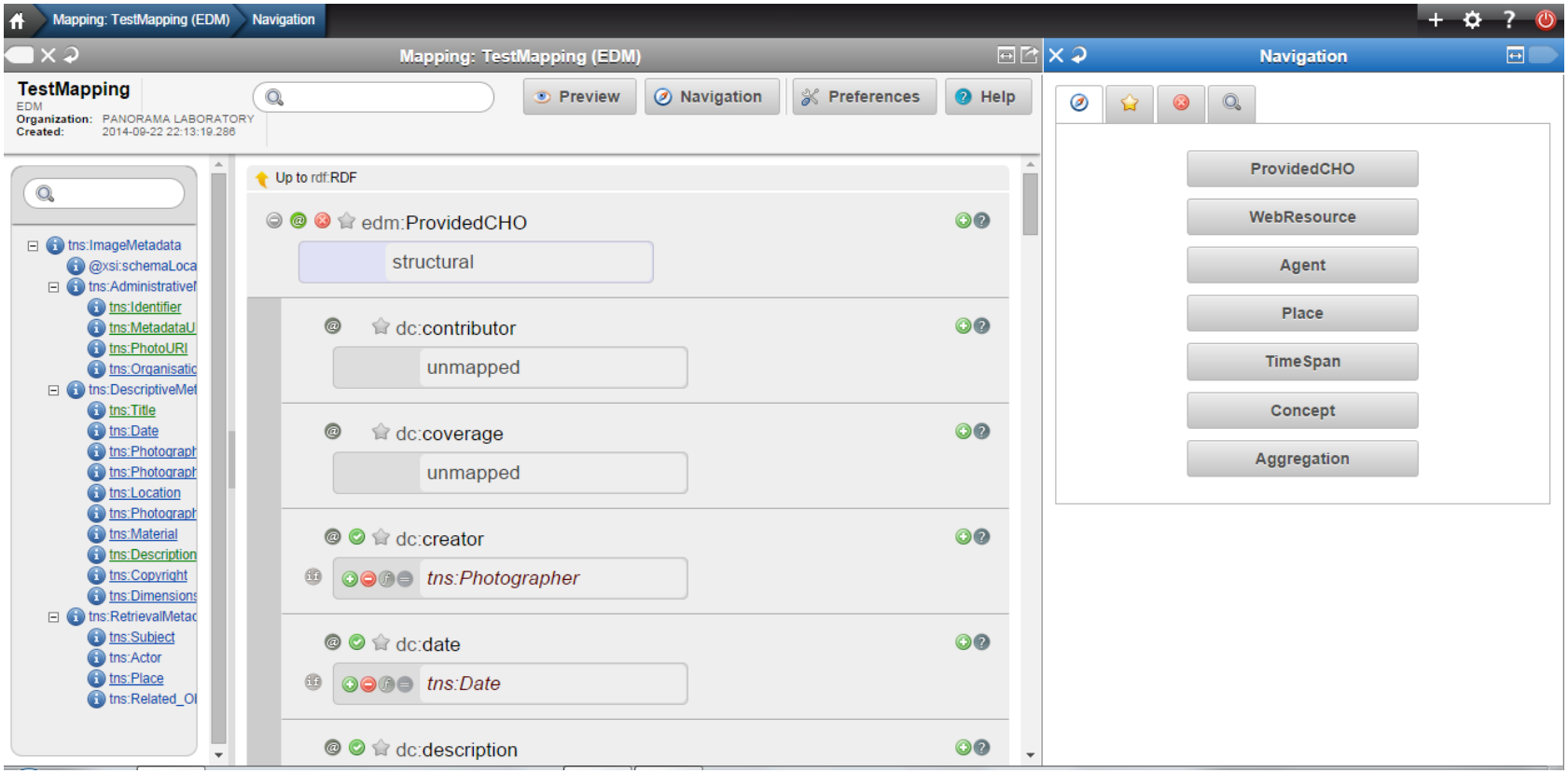
- Navigate through the three different areas:
  - On the input schema area browse through the metadata and using the search button highlight the metadata field of title
  - On the mapping area browse through the target metadata schema by using the appropriate buttons (+,-,@)
  - Use the four tabs on the navigation area in order to navigate through fields, exam bookmarked fields, find mandatory elements that are unmapped and search for elements

Mappings


Xpath
Constant
Concatenate
Value
Functional
Conditional
Structural
Thesaurus
Mapping

Mappings – Xpath mapping

- Xpath mapping is performed simply by dragging the xpath from the input tree and dropping it to the desired element of the mapping area.



Exercise 11 – Xpath Mappings

Using the bookmarks on the navigation tab create the following Xpath mappings:

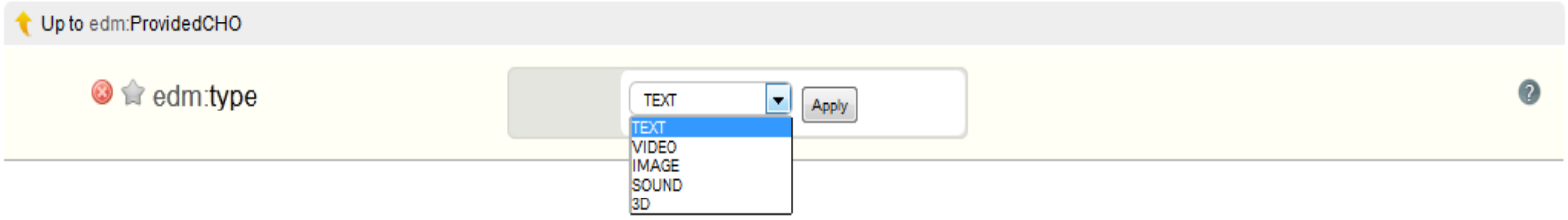
Source Element	Bookmark (to be added)	Target Element
Tns: Identifier		EDM:Provided CHO @rdf: about
Tns: Identifier		EDM:Provided CHO dc: identifier
Tns:Identifier		ore:Aggregation - EDM aggregated CHO @rdf:resource
Tns: Identifier*		ore:Aggregation- @rtf: about
		«Aggregation _+Identifier»
Tns:Metadata URI		ore:Aggregation /EDM: is Shown at @rdf:resource
Tns: PhotoUri		ore:Aggregation / isShownBy @RDF resource
Organisation		ore:Aggregation /EDM: provider

Exercise 11 – Xpath Mappings

Source Element	Bookmark (to be added)	Target Element
Tns: Title		Provided CHO/dc: Title
Tns: Date		EDM PCHO/dcterms: created
		EDM PCHO/ dc:date
Tns: Photographer		EDM PCHO/dc:creator
Tns: Photographic Technique		EDM PCHO/dc:Format
Tns:Location		EDM PCHO/dcterms:Spatial
Tns:Photographic Practice		EDM PCHO/dc: Format
Tns:Material		EDM PCHO/dcterms:Medium
Tns:Description		EDM PCHO/dc:description
Tns:Copyright		EDM PCHO/dc:rights
Dimension		EDM PCHO/dc: extent
Tns: Subject		EDM PCHO/dc:subject
Tns:Place		EDM PCHO / dcterms:Spatial
Related object		EDM PCHO/ edm:is related to
EDM MAPPINGS		EDM PCHO/dc:type : image
		EDM PCHO /EDM rights @rdf: resourse : http://www.europeana.eu/rights/rr-F/

Mappings – Enumerated Mapping

- Double click on an element that takes values from an enumerated list.



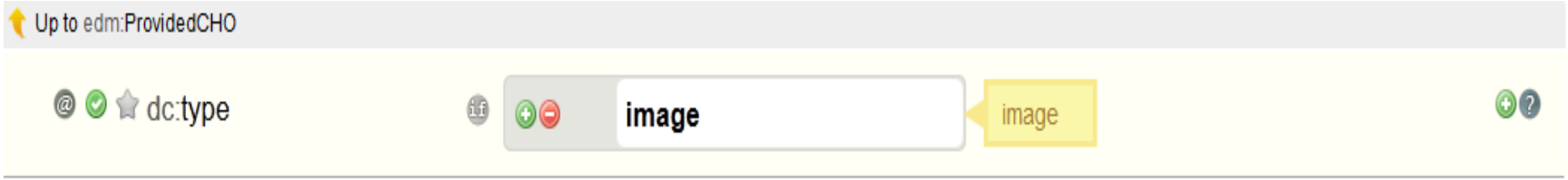
Exercise 12 – Enumerated Mappings

Using the bookmarks on the navigation tab create the following Enumerated mappings:

Target Element	Value
EDM PCHO/edm:type	IMAGE
EDM PCHO /EDM rights @rdf: resource	http://www.europeana.eu/rights/rr-F/

Mappings – Constant Mapping

- By double clicking on the unmapped area you can type a constant value that will be applied to all items.



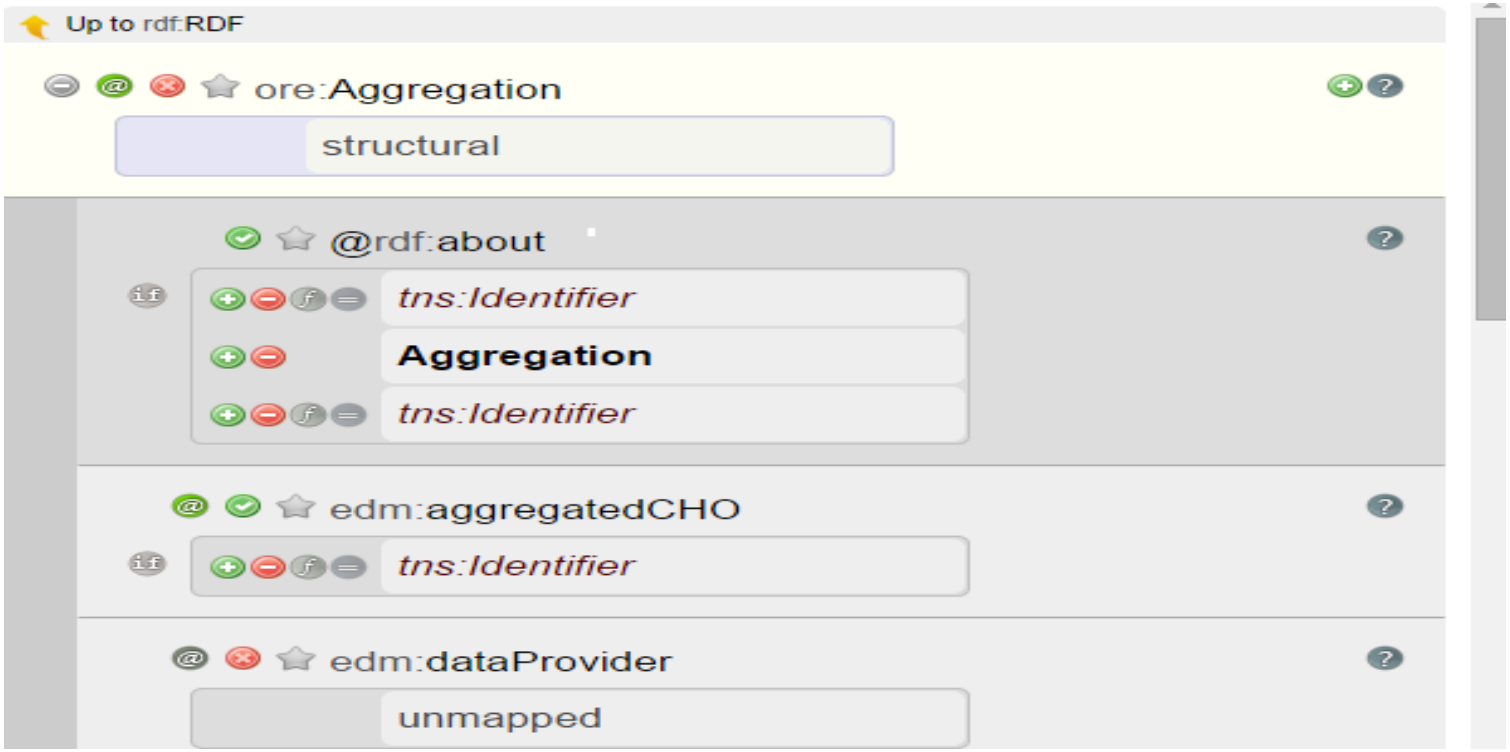
Exercise 13 – Constant Mappings

Using the bookmarks on the navigation tab create the following constant mapping:

Source Element	Target Element	Constant Value
Organisation	Ore:Aggregation/EDM:provider	NTUA

Mappings – Concatenate mapping

- By clicking on the icon you can perform a concatenate mapping i.e. to combine more than one mappings for producing a new mapping.

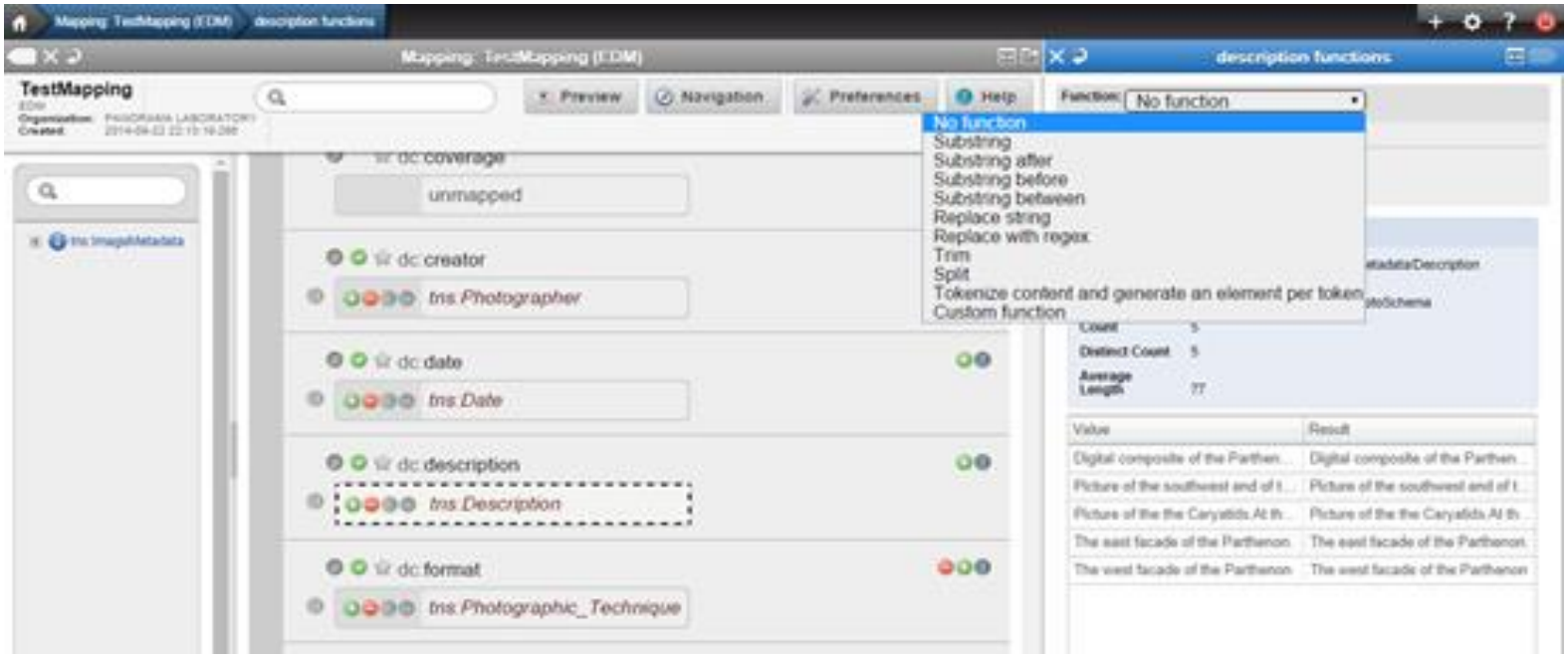


Exercise 14 – Concatenate Mapping

- The target field of the navigation **ore:Aggregation/@rdf:about** should take its value as a concatenate mapping combining the source element: **tns:identifier** with the static text **“Aggregation”**

Mappings – Functional Mappings

- By clicking on the  button you can perform a functional mapping i.e. to modify the value of an input xpath by applying a string manipulation function to it.



Functional Mappings

- **Substring** – You set the start and the end index.
- **Substring after** – You set the substring of the original string after which the value is taken.
- **Substring before** – You set the substring of the original string before which the value is taken.
- **Substring between** – You set the substrings of the original string after and before which the value is taken.
- **Split** – You set the delimiter for tokenization and the start index of the original string.
- **Tokenize content and generate an element per content** – You set the delimiter for tokenization.

Mappings – Functional Mappings

Function: Substring

Character indices start from 1.

string from index: 1

length of selected substring (optional): 7

Apply changes

tns:Description information

XPath	/ImageMetadata/DescriptiveMetadata/Description
Namespace URI	http://www.example.org/EuPhotoSchema
Count	5
Distinct Count	5
Average Length	77

Value	Result
Digital composite of the Parthen...	Digital
Picture of the southwest end of t...	Picture
Picture of the the Caryatids.At th...	Picture
The east facade of the Parthenon.	The eas
The west facade of the Parthenon	The wes

Function: Substring between

select part of string after string: of

and before string: n

Apply changes

tns:Description information

XPath	/ImageMetadata/DescriptiveMetadata/Description
Namespace URI	http://www.example.org/EuPhotoSchema
Count	5
Distinct Count	5
Average Length	77

Value	Result
Digital composite of the Parthen...	the Parthe
Picture of the southwest end of t...	the southwest e
Picture of the the Caryatids.At th...	the the Caryatids.At the south p...
The east facade of the Parthenon.	the Parthe
The west facade of the Parthenon	the Parthe

Exercise 15 – Functional Mapping

Create a functional mapping from the source element: **tns:Identifier** to the Target Element: **edm:ProvidedCHO/dc:identifier** such that the following transformations take place (use the substring after function):

Source Element Value	Target Element Value
108_0851b	0851b
108_0853	0853
108_0868	0868
108_0874b	0874b
108_0874f	0874f

Mappings – Conditional Mapping

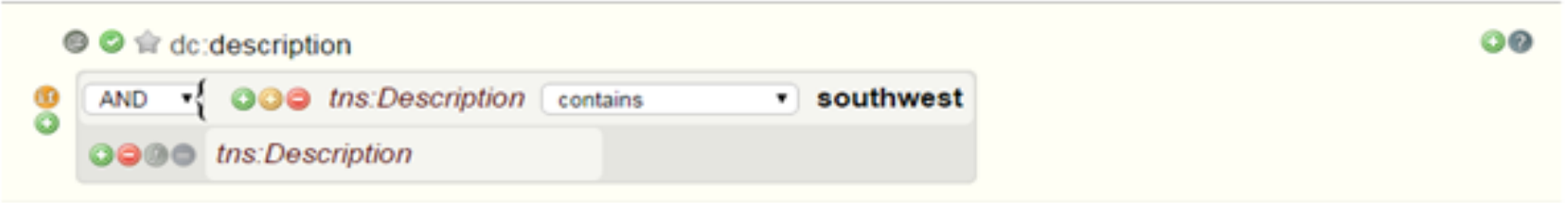
- By clicking on the  button you can perform a conditional mapping i.e. to transform the value from an input xpath by using conditions. On the left the drop down menu with the type of condition appears that can be AND or OR. A condition is set using one of the following functions.
  - **Is equal to** – sets a condition that is satisfied when the given xpath is equal to the given value.
  - **Is not equal to** – sets a condition that is satisfied when the given xpath is not equal to the given value.
  - **Exists** – sets a condition that is satisfied if the given xpath exists. It is important to note at this point that the fact the xpath of an element exists in the input tree does not mean that it exists for all the data in the imported collection. (In other words the input tree shown on the left aggregates all the possible xpaths found in the input data).
  - **Does not exist** – sets a condition that is satisfied if the given xpath does not exist. It is important to note at this point that the fact the xpath of an element exists in the input tree does not mean that it exists for all the data in the imported collection. (In other words the input tree shown on the left aggregates all the possible xpaths found in the input data).

Mappings – Conditional Mapping

- **Contains** – sets a condition that is satisfied if the given xpath contains the given value.
- **Does not contain** – sets a condition that is satisfied if the given xpath does not contain the given value.
- **Starts with** – sets a condition that is satisfied if the given xpath starts with the given value.
- **Does not start with** – sets a condition that is satisfied if the given xpath does not start with the given value.
- **Ends with** – sets a condition that is satisfied if the given xpath ends with the given value.
- **Does not end with** – sets a condition that is satisfied if the given xpath does not end with the given value.

Mappings – Conditional Mapping

- If the value of xpath tns:Description **contains** “southwest” then the value of the xpath tns:Description will be mapped to the xpath edm:ProvidedCHO/dc:description of the target schema.



Exercise 16 – Conditional Mapping

Using the source elements tns:Title and tns:Photographer create the following conditional mapping for the edm:ProvidedCHO/dc:title target field:

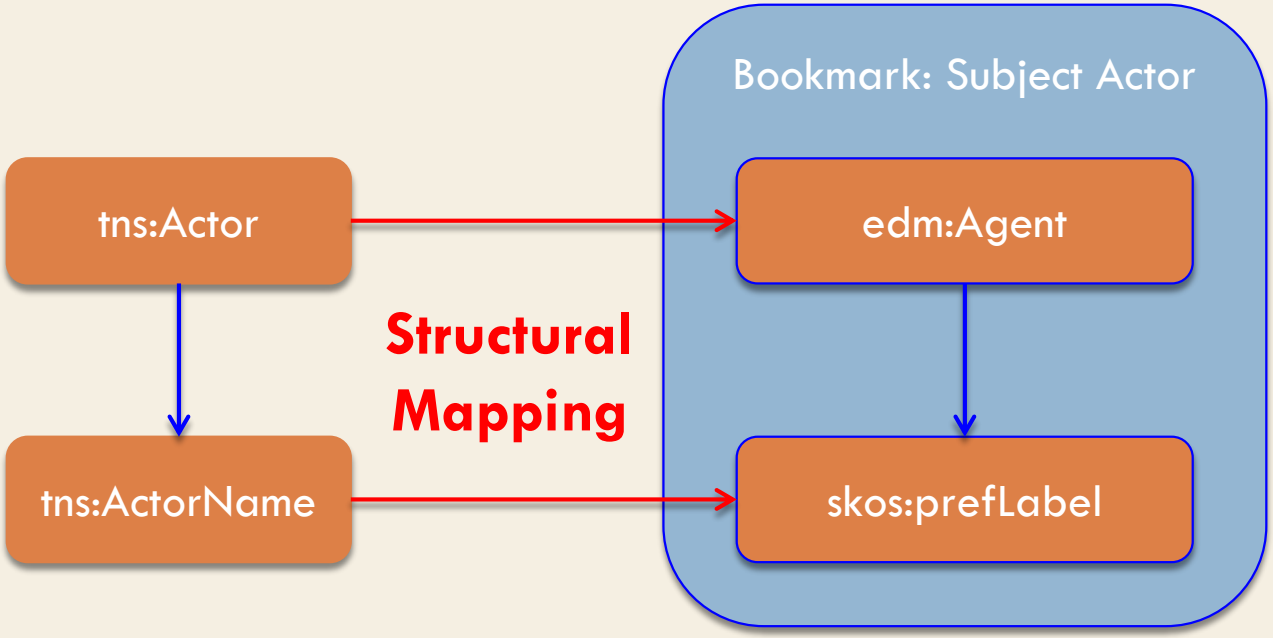
- If the value of tns:Title contains the word Parthenon and the tns:Photographer value is Petros Katsaros then the edm:ProvidedCHO/dc:title is the concatenation between tns:Title and the String "by Petros Katsaros"
- Otherwise the edm:ProvidedCHO/dc:title is the same as tns:Title

Mappings – Structural Mapping

- Structural mappings form a special category of mapping. As you may have noticed in the complex types of the target schema illustrated in the mapping area text “structural” appears instead of “unmapped”. At this area you can map complex elements of your input metadata.
- Let’s assume you have a complex element named “B” in your metadata – having “C” as a child – and B appears 3 times in only one record. Also assume complex element “BTarget” – having “CTarget” as a child – in the target schema. If you make a structural mapping of B (by dragging it and dropping it) to “BTarget” and then you map “C” to “CTarget” 3 “BTarget” complex elements will appear in the output XML having “CTarget” as child and having the values of “C”.

Exercise 17 – Structural mapping

Create the following structural mapping:



Mappings – Thesaurus mapping

- Elements that take values from vocabularies have the (thesaurus) label in their mapping text-field

This functionality will be enabled as soon as a Thesaurus is implemented

Mappings – Thesaurus mapping

- Double click on an element that takes values from a terminology (e.g. xml:lang) and this window appears from where you can select a term by clicking on it.

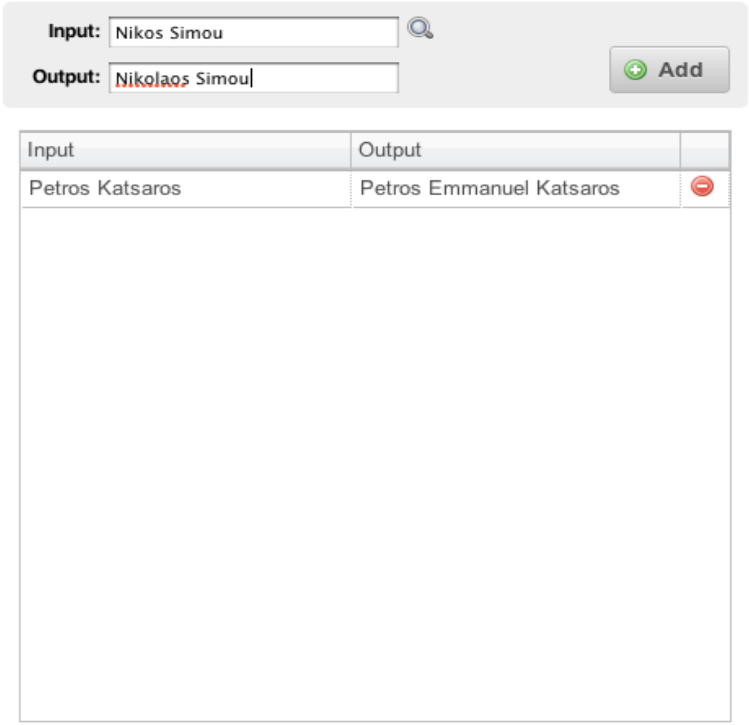
- This functionality will be enabled as soon as a Thesaurus is implemented

Exercise 18 – Thesaurus mapping

This functionality will be enabled as soon as a Thesaurus is implemented

Mappings – Value Mappings

- By clicking on the icon you can perform a value mapping i.e. to map specific values of your input metadata to specific values that you set.



Mappings – Value Mappings

- Value mappings can be also used for mapping the local ontologies to the WP1 ontologies

- This functionality will be enabled as soon as a Thesaurus is implemented

Exercise 19 – Value Mappings

Create the following Xpath mappings:

Source Element	Target Element
Tns:Photographic _Technique	Edm:PCHO dc:format
Tns:Photographic _Practice	Edm:PCHO dc:format
Tns:Subject	Edm:PCHO dc:subjet

Based on the previous create the following value mappings:

Target Element	Initial Value	New Value
Edm:PCHO dc:format	Digital camera	general
Edm:PCHO dc:format	The photo was taken…Greek monuments	Documentary Photography
Edm:PCHO dc:subjet	The Parthenon	monument

Exercise 19 – Value Mappings

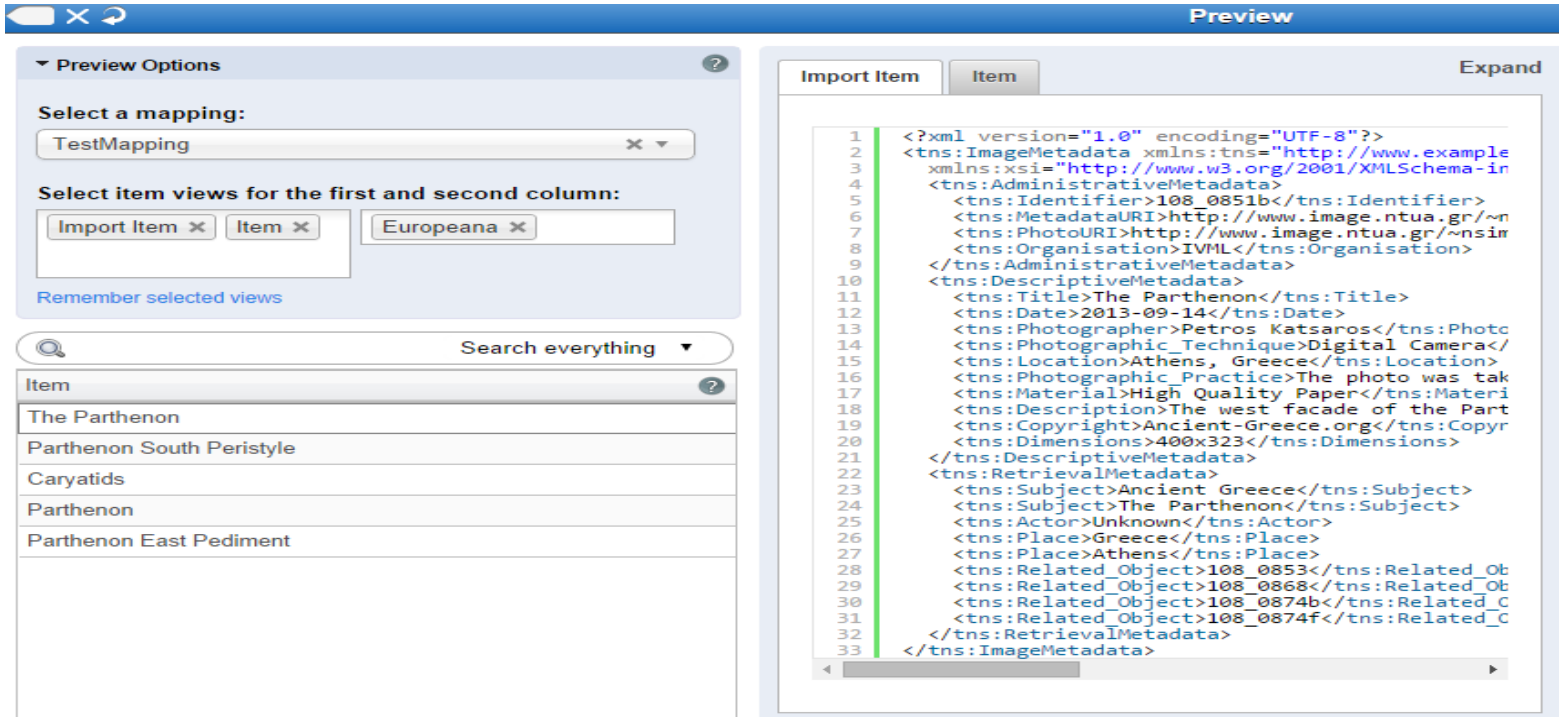
And the following constant mappings

Xpath	Constant Value
edm:dataProvider	NTUA

Preview Items

Preview Items

- Click on preview
- Select the previews you like in each tab
- Click on an item



Preview Items

- Click on the red line to see the error

Preview Items

EDM | Europeana | Show all

XML is valid based on EDM

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<rdf:RDF xmlns:ore="http://www.openarchives.org/ore/terms/"
         xmlns:owl="http://www.w3.org/2002/07/owl#"
         xmlns:rdaGr2="http://rdvocab.info/ElementsGr2/"
         xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#"
         xmlns:rdfs="http://www.w3.org/2000/01/rdf-schema#"
         xmlns:crm="http://www.cidoc-crm.org/rdfs/cidoc_crm_v5.0.2_english_label.rdfs#"
         xmlns:skos="http://www.w3.org/2004/02/skos/core#"
         xmlns:dc="http://purl.org/dc/elements/1.1/"
         xmlns:wgs84="http://www.w3.org/2003/01/geo/wgs84_pos#"
         xmlns:dcterms="http://purl.org/dc/terms/"
         xmlns:xalan="http://xml.apache.org/xalan"
         xmlns:edm="http://www.europeana.eu/schemas/edm/"
         xmlns:foaf="http://xmlns.com/foaf/0.1/">
   <edm:ProvidedCHO rdf:about="http://www.image.ntua.gr/CHO/Photography:000000">
      <dc:creator xml:lang="eng">Petros Katsaros</dc:creator>
      <dc:description xml:lang="eng">The west facade of the Parthenon </dc:description>
      <dc:format>400x323</dc:format>
      <dc:identifier>0851b</dc:identifier>
      <dc:rights>Ancient-Greece.org</dc:rights>
      <dc:subject rdf:resource="http://bib.arts.kuleuven.be/photoVocabulary/30808"/>
      <dc:subject xml:lang="eng">Actor One </dc:subject>
      <dc:subject xml:lang="eng">Actor Two</dc:subject>
      <dc:subject xml:lang="eng">Greece </dc:subject>
      <dc:subject xml:lang="eng">Athens</dc:subject>
      <dc:title xml:lang="eng">The Parthenon by Petros Katsaros</dc:title>
      <dc:type xml:lang="eng">Ancient PhotographyPhotography</dc:type>
      <dc:type xml:lang="eng">Ancient Photography</dc:type>
      <dcterms:created>2013-09-14/</dcterms:created>
      <dcterms:medium xml:lang="eng">High Quality Paper</dcterms:medium>
      <dcterms:spatial>Athens, Greece</dcterms:spatial>
      <edm:type>IMAGE</edm:type>
   </edm:ProvidedCHO>
   <edm:WebResource rdf:about="http://www.image.ntua.gr/~nsimou/EuPhoto/Image/108_0851b.jpeg"/>
   <edm:WebResource rdf:about="http://www.image.ntua.gr/~nsimou/EuPhoto/Data/108_0851b.xml"/>
   <skos:Concept rdf:about="http://terminology.lido-schema.org/lido00012"/>
   <skos:Concept rdf:about="Ancient Greece"/>
   <ore:Aggregation rdf:about="http://www.image.ntua.gr/Aggregation/Photography:000000">
      <edm:aggregatedCHO rdf:resource="http://www.image.ntua.gr/CHO/Photography:000000"/>
      <edm:dataProvider>IVML - Image Video and Multimedia Systems Laboratory</edm:dataProvider>
      <edm:isShownAt rdf:resource="http://www.image.ntua.gr/~nsimou/EuPhoto/Data/108_0851b.xml"/>
      <edm:isShownBy rdf:resource="http://www.image.ntua.gr/~nsimou/EuPhoto/Image/108_0851b.jpeg"/>
      <edm:object rdf:resource="http://www.image.ntua.gr/~nsimou/EuPhoto/Image/108_0851b.jpeg"/>
      <edm:provider>Europeana Photography</edm:provider>
```

Preview Items

EDM | Europeana

Show all

© Rights Reserved - Free access

View item at
IVML - Image Video and Multimedia Systems Laboratory

Share

Cite on Wikipedia

Translate details

The Parthenon by Petros Katsaros

Description: The west facade of the Parthenon

Subject:
http://bib.arts.kuleuven.be/photoVocabulary/30808
Actor One Actor Two Greece Athens

Creator: Petros Katsaros

Place: Athens, Greece

Date: 2013-09-14/

Type: Ancient PhotographyPhotography Ancient Photography

Format: 400x323 High Quality Paper

Identifier:0851b

Rights: Ancient-Greece.org

Data provider: IVML - Image Video and Multimedia Systems Laboratory

Provider: Europeana Photography

Search also for:

Title
The Parthenon by Petros Katsaros
Who
Petros Katsaros
What
Ancient PhotographyPhotography
Ancient Photography
Actor One
Actor Two
Greece
Athens
400x323
Provider
IVML - Image Video and Multimedia Systems Laboratory
Europeana Photography

Exercise 20 – Preview Items

For the mapping you have created click on the Preview button

- On the item views for the first column set: Item
- On the item views for the second column set: Mapped Item, Europeana
- Then click to one of the items (e.g. Parthenon) and check the initial item, its transformation to the EDM schema and how this item is displayed by the Europeana portal
- Check the mapped item for possible errors. In case of an error detect it and make the necessary changes based on the previous exercises.

Exercise 21 – Preview Items

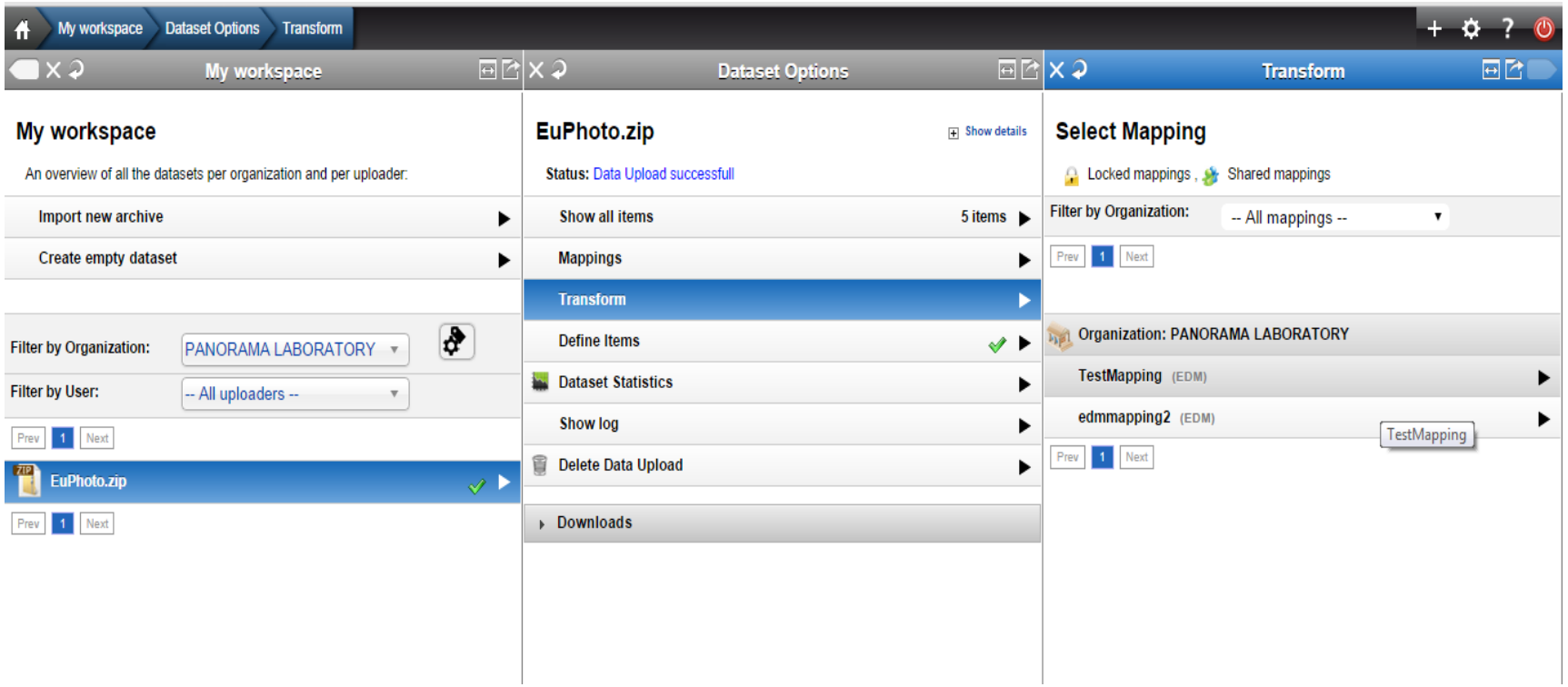
In case that the mapped item created in the previews step contained no errors then:

- Deliberately create an error by removing a mandatory value
- For once again check the mapped item for possible errors. Alternatively check in the navigation bar for mandatory elements that are unmapped
- Restore the mapping to its previous form

Transform Items

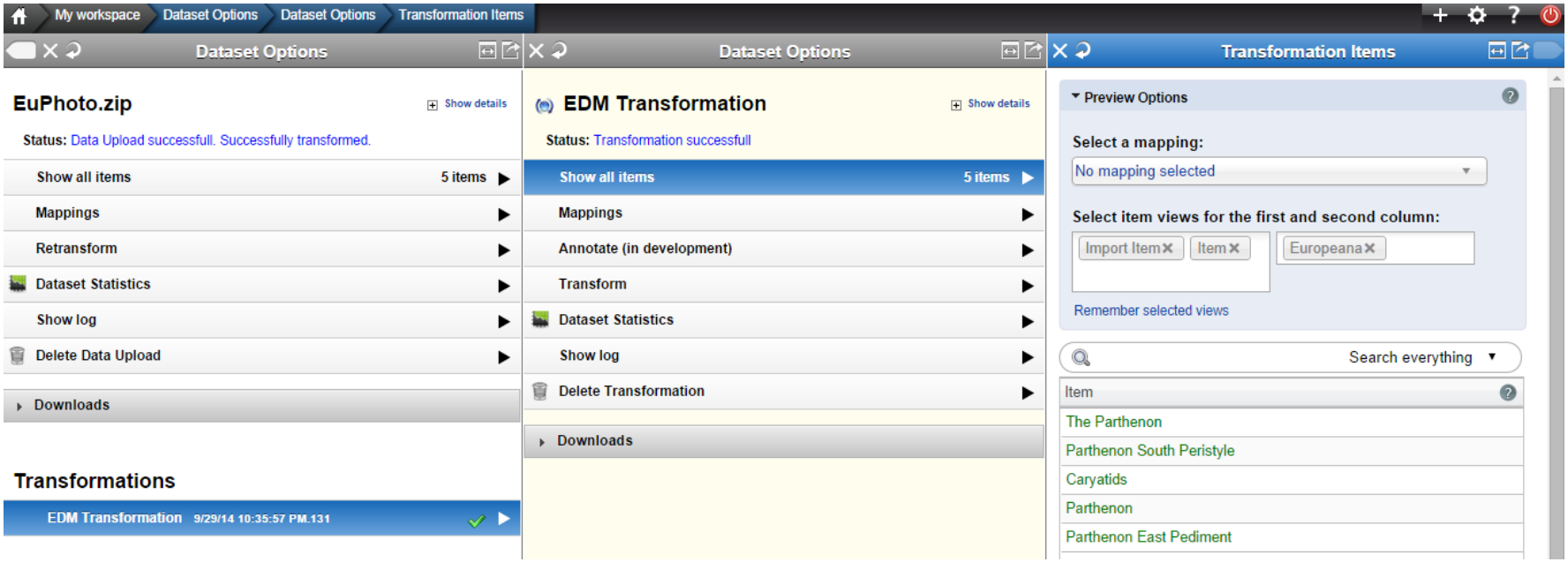
Transform Items

- Select Transform from the Dataset Options and then select the mapping with which you wish to transform

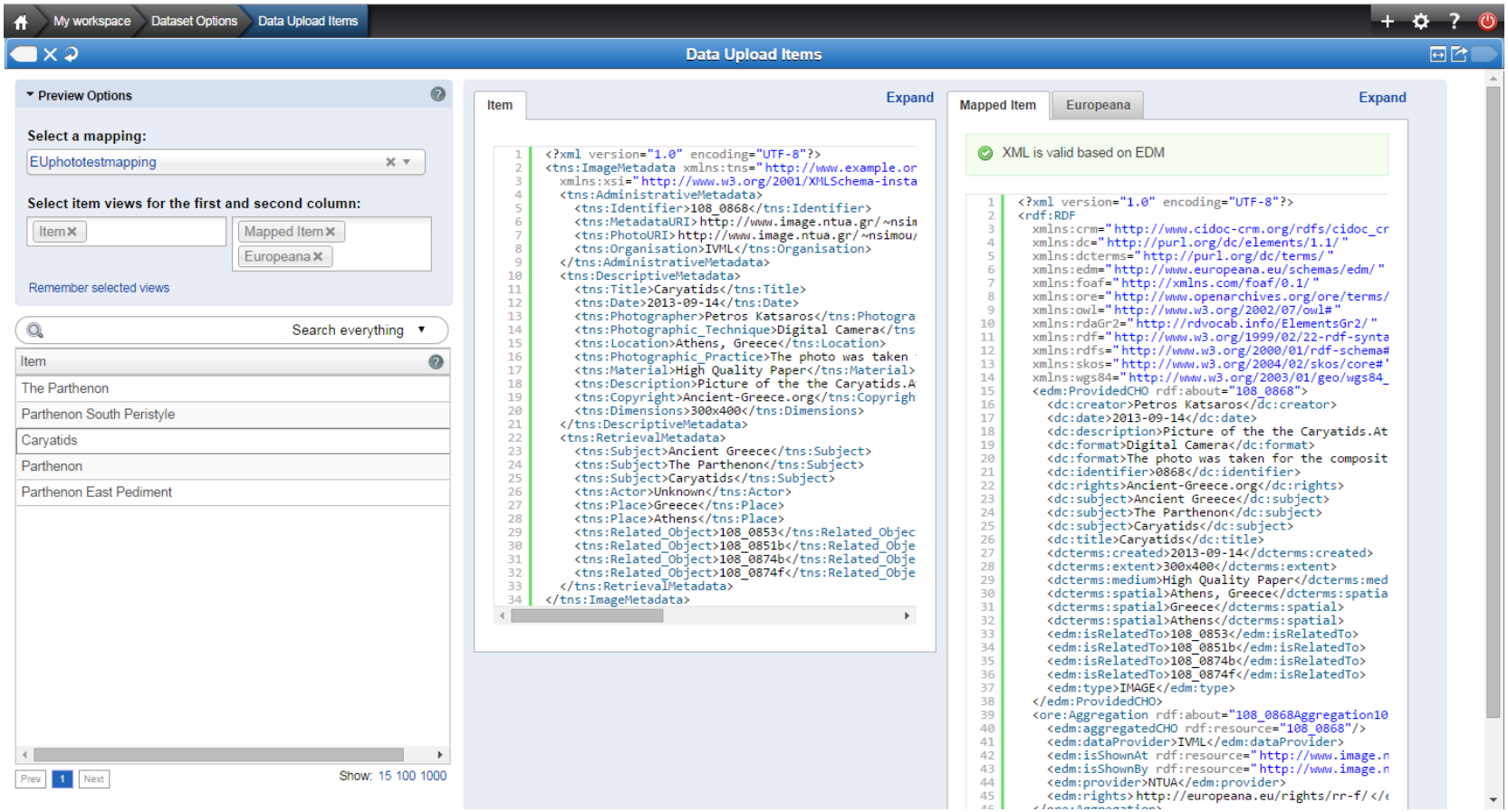


Preview Transformed Items

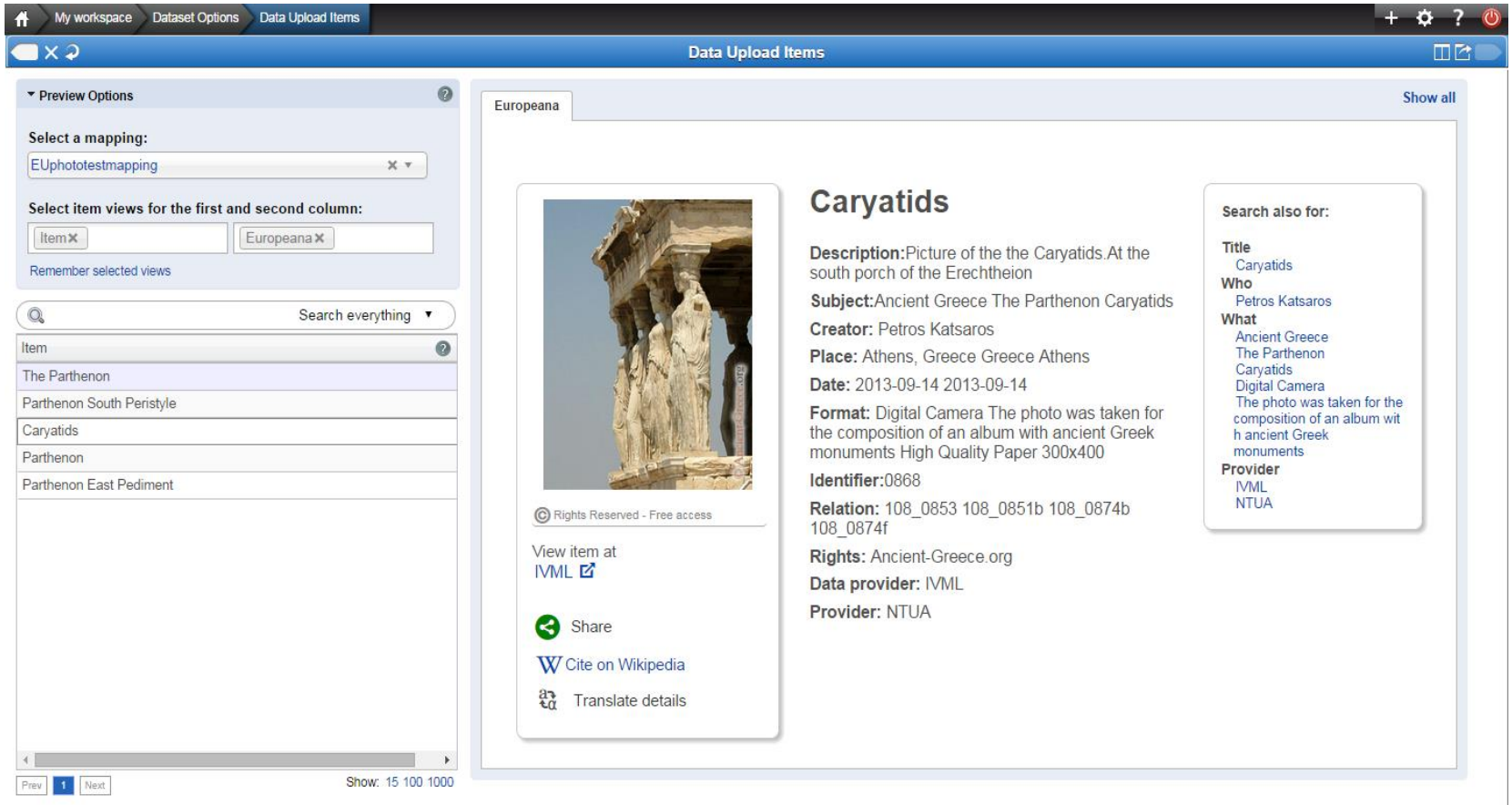
The transformation icon appears next to the dataset and the derived dataset appears under the transformation



Preview Transformed Items (Mapped Item)



Preview Transformed Items (Europeana)



Exercise 22 – Transform Items

Transform the elements in your initial dataset ("EuPhoto.zip") based on the mapping you have created