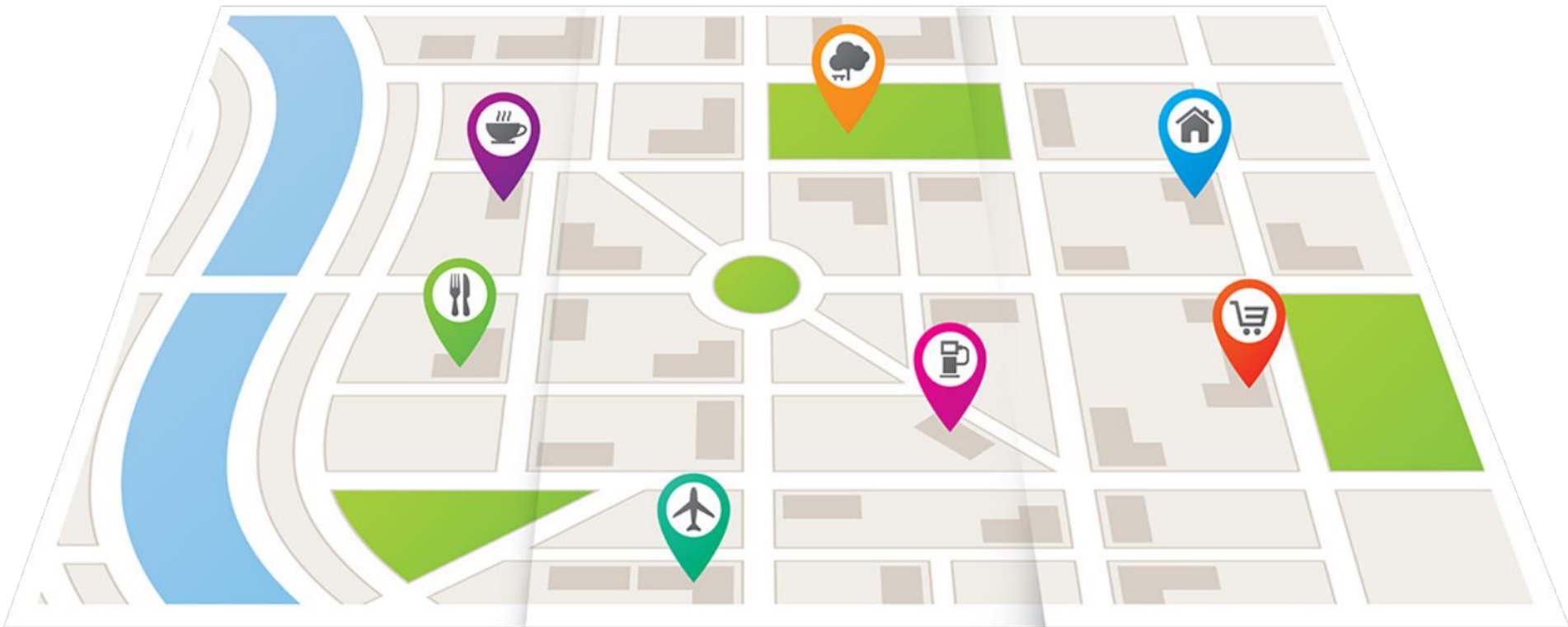


**Appendices -
Additional exercises**

Add15 Build and use a Geocoder Web Service

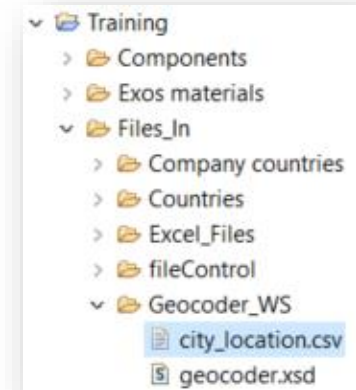
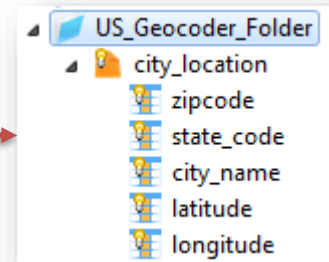
- ❖ The Objective is to create and use a Geocoder Web Service
 - Use more than 29000 latitude and longitude of US cities
 - Publish a Web Service with parameters and XML
 - Reverse this published Web Service to invoke it and update the T_ADDRESS table



❖ 1 – A File metadata is available and must be integrated in DB

	A	B	C	D	E
1	zipcode	state_code	city_name	latitude	longitude
2	35004	AL	Acmar	33.584132	-86.515570
3	35005	AL	Adamsville	33.588437	-86.959727
4	35006	AL	Adger	33.434277	-87.167455
5	35007	AL	Keystone	33.236868	-86.812861
6	35010	AL	New Site	32.941445	-85.951086
7	35014	AL	Alpine	33.331165	-86.208934
8	35016	AL	Arab	34.328339	-86.489638
9	35019	AL	Baileyton	34.268298	-86.621299
10	35020	AL	Bessemer	33.409002	-86.947547
11	35023	AL	Hueytown	33.414625	-86.999607
12	35031	AL	Blountsville	34.092937	-86.568628
13	35033	AL	Bremen	33.973664	-87.004281
14	35034	AL	Brent	32.935670	-87.211387
15	35035	AL	Brierfield	33.042747	-86.951672
16	35040	AL	Calera	33.109800	-86.755987

1

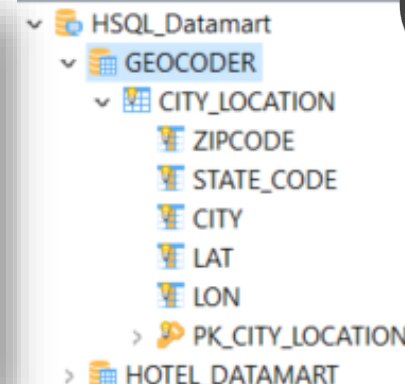


❖ 2 - Execute the SQL file (Init Environment.sql)

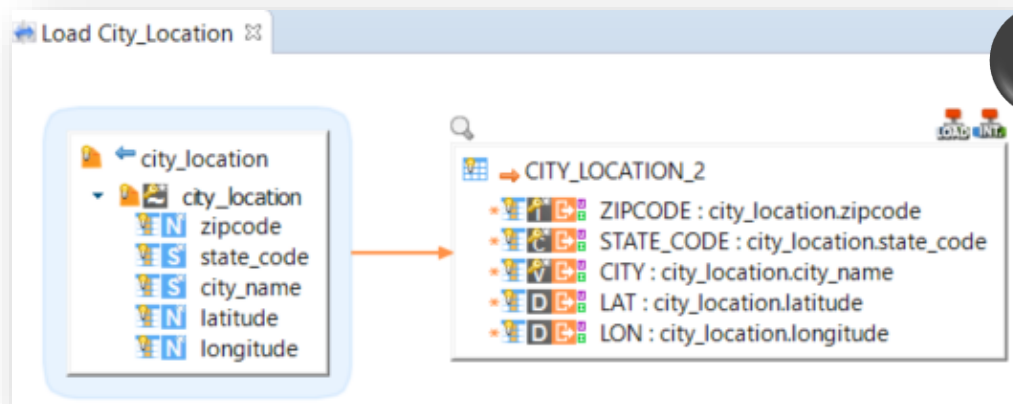
- Reverse GEOCODER schema and the related table

```
Init Environment.sql
DROP SCHEMA GEOCODER IF EXISTS CASCADE;
CREATE SCHEMA GEOCODER;
CREATE table GEOCODER.CITY_LOCATION
(
  ZIPCODE      INTEGER,
  STATE_CODE   CHAR(2),
  CITY         VARCHAR(50),
  LAT          DECIMAL(8,6),
  LON          DECIMAL(10,6),
  CONSTRAINT   PK_CITY_LOCATION PRIMARY KEY (ZIPCODE, STATE_CODE, CITY)
);
```

2



❖ 3 - Create a mapping to load the file in the table



❖ 4 – An XML metadata is available

Diagram illustrating the XML metadata structure:

State	
code	string
upperCaseName	string
stateName	string

City	
cityName	string
zipCode	string
latitude	decimal
longitude	decimal

Training

- Components
- Exos materials
 - AddExo
 - Add01_BindLink
 - Add02_GenerateAFileWithAFile
 - Add03_HierarchicalFiles
 - Add04_IntegrateMultipleFilesInDB
 - Add05_WaitDifferentFilesInDB
 - Add06_OperatingSystemCommand
 - Add07_LoopInAProcess
 - Add08_PivotOnActivity
 - Add09_InhibitoryLink
 - Add10_PivotWithColumnName
 - Add11_SQLOperation
 - Add12_SplitFile
 - Add13_Greatest_and_least_pivot
 - Add14_PublishGeneratedJsonFiles
 - Add15_BuildUseGeocoderWebService
 - 10-Materials
 - FILE_Server
 - Init Environment.sql
 - step_by_step_syntax_help.txt
 - XML_Geocoder
 - geocoder.xsd

Geocoder.md

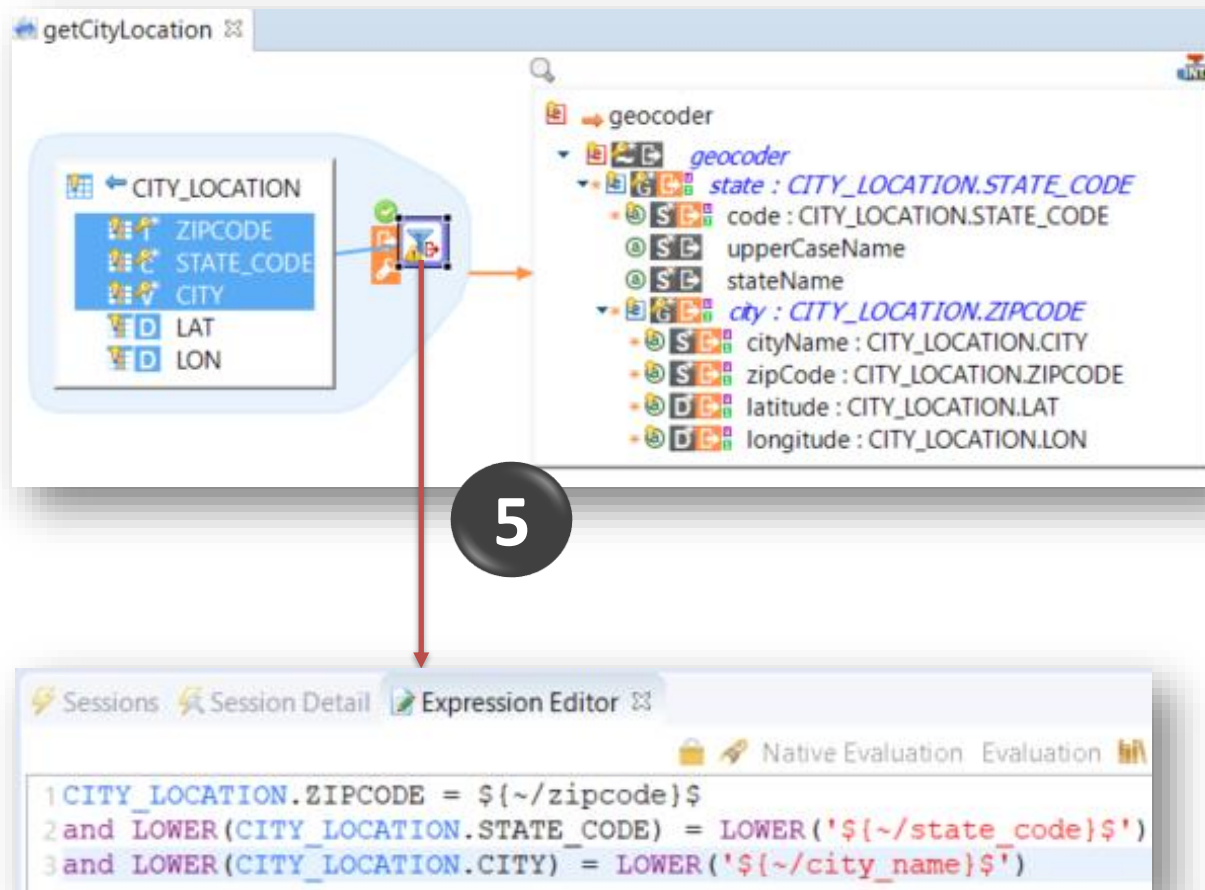
type filter text

```

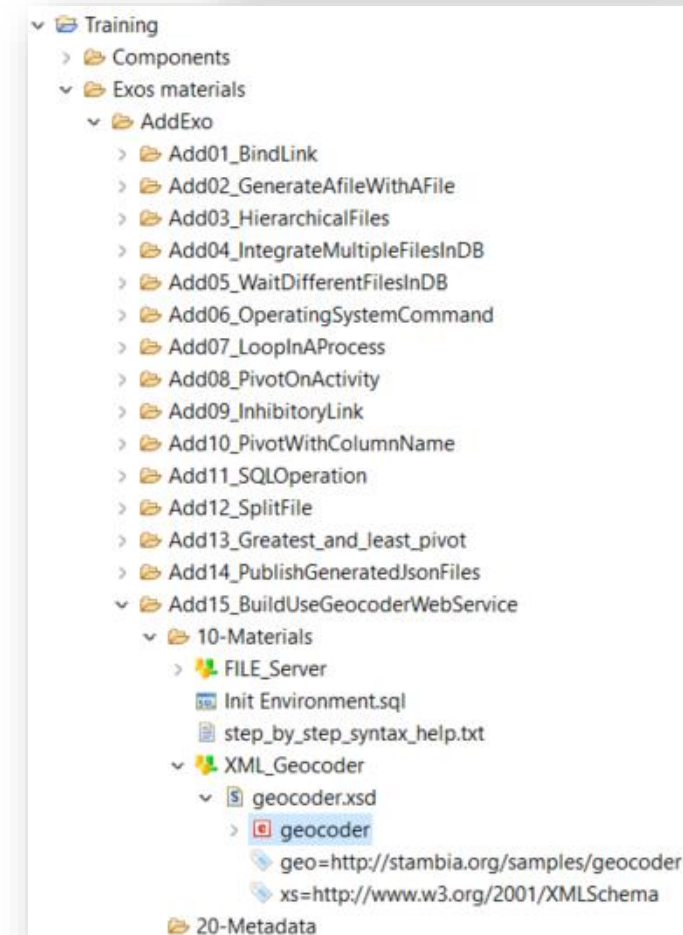
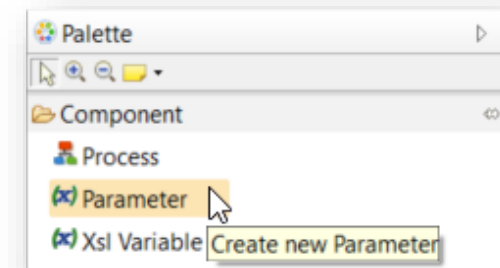
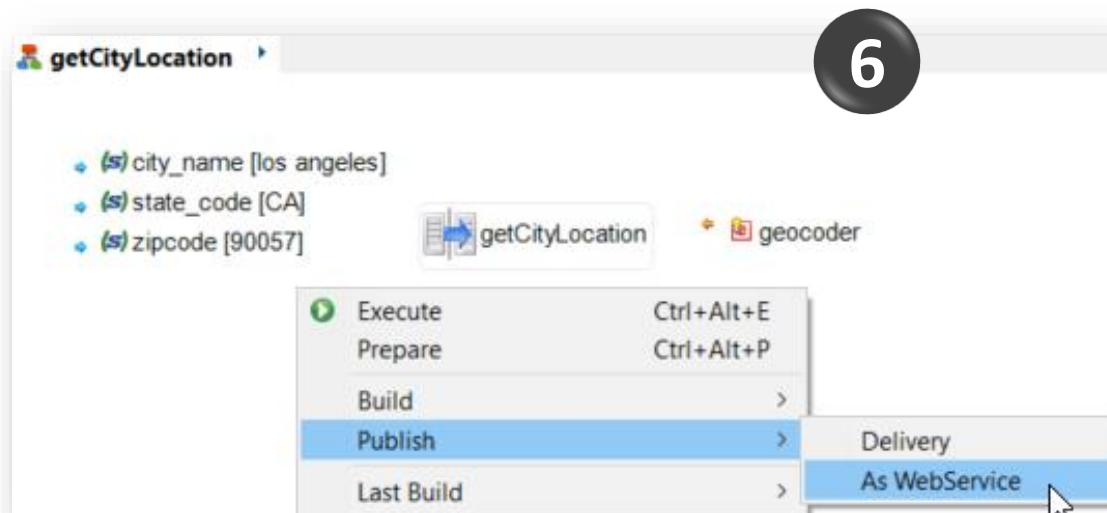
<?xml version="1.0" encoding="UTF-8" standalone="yes" ?>
<geocoder>
  <state>
    <code>
    <stateName>
    <upperCaseName>
  </state>
  <city>
    <cityName>
    <latitude>
    <longitude>
    <zipCode>
  </city>
</geocoder>
  
```

geo=http://stambia.org/samples/geocoder
xs=http://www.w3.org/2001/XMLSchema

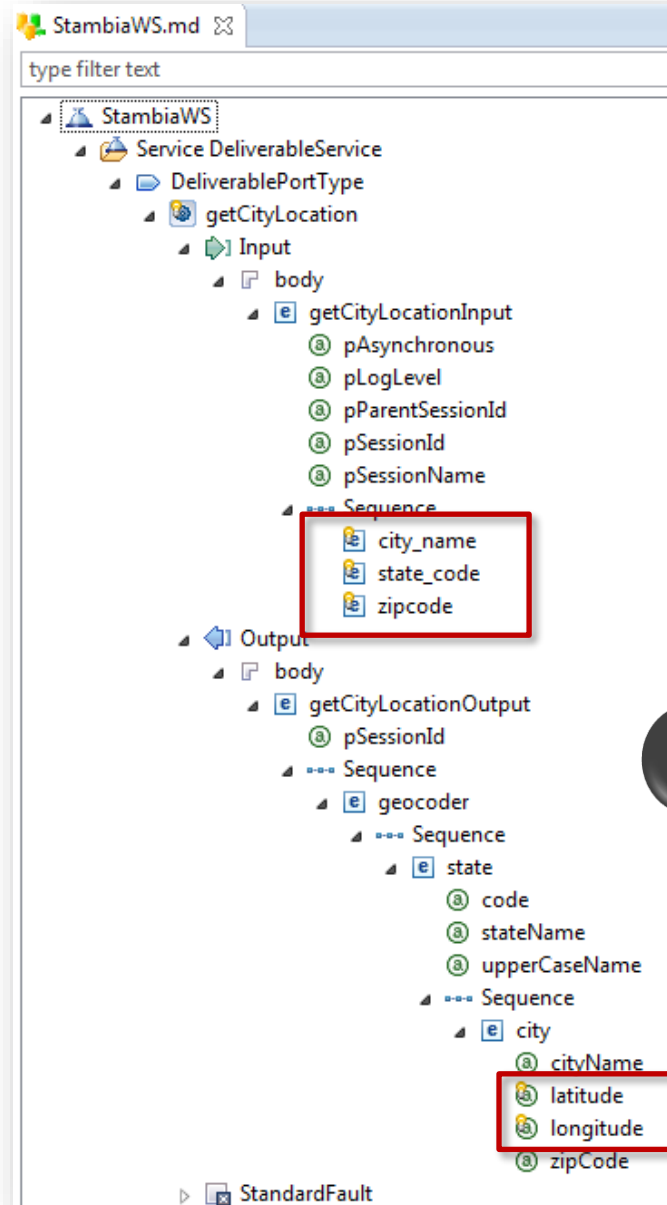
- ❖ 5 - Create a mapping to load in a XML structure the result of a search with a filter
 - The 3 restrictions refer to the 3 input parameters of the Web Service



- ❖ 6 - Create a process with
 - 3 input parameters
 - The mapping
 - the output XML root element
 - Publish the process as a Web Service



- ❖ 7 - Once the Web Service is published, it's possible to reverse it



7

- ❖ 8 - Build and execute a mapping to update the latitude and longitude of the T_ADDRESS table with the invoke of Web Service

