GELLO querying a database

GELLO can query a database. This example will show some some code that queries a database for a postcode based on a given locality. This page will then show it in use in an archetype.

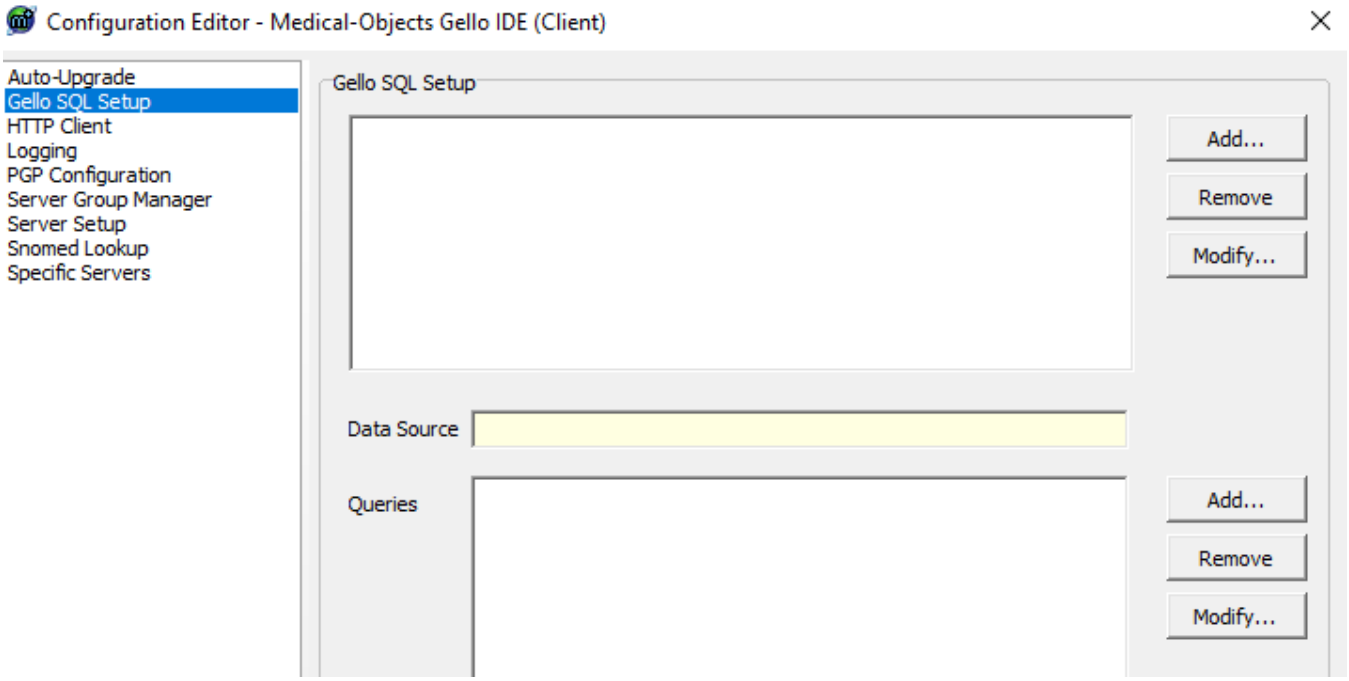
Here is some code for this:

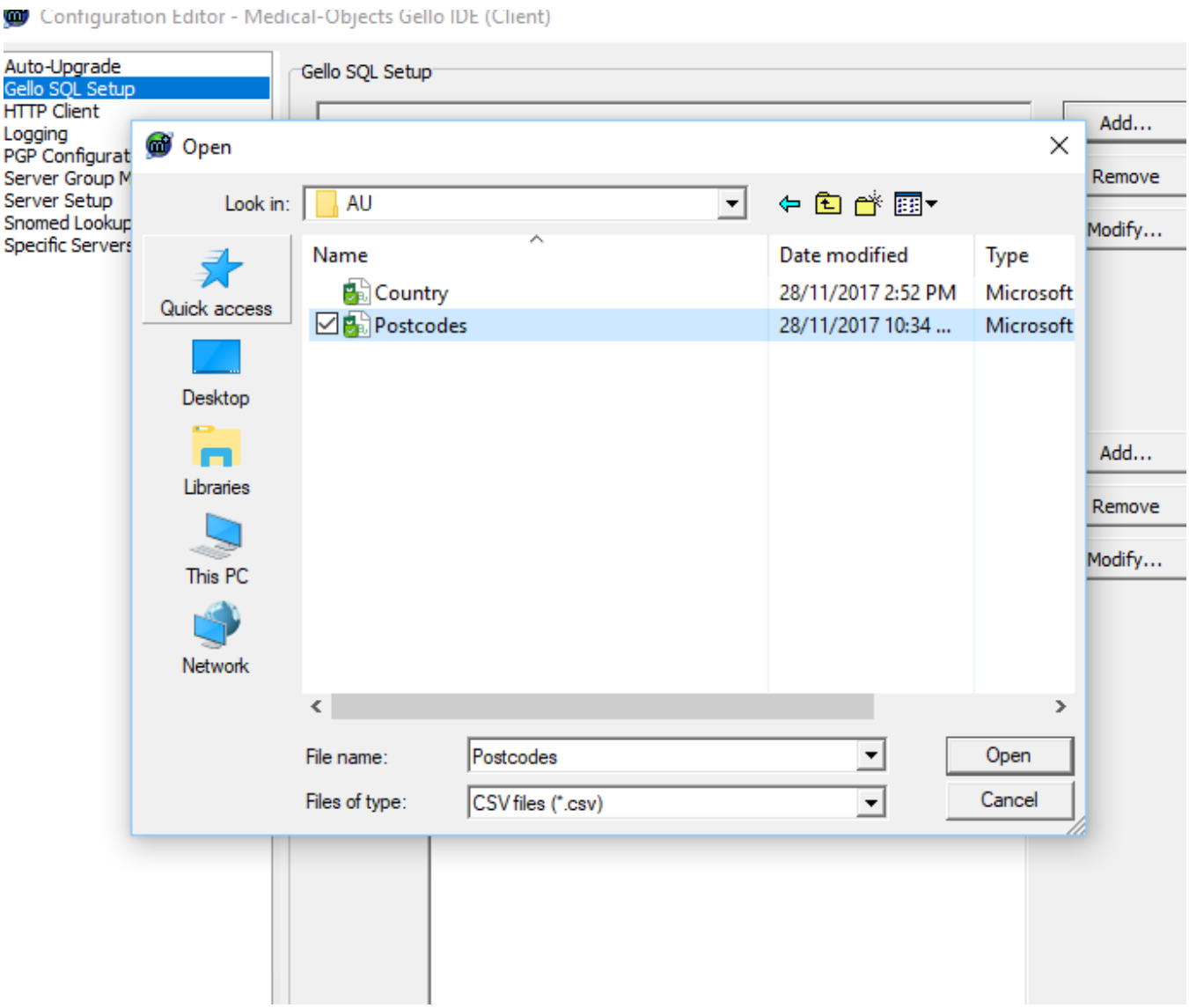
```
imports DB_Postcodes

Let retrievedSuburbName: String = 'Bray Park' -- this will be the entered Suburb or locality
Let retrievedStateName: String = 'NSW' -- this will be the entered State

Let postcodeTable: Sequence(TBL_csv)= csv
Let selectedRowOrRows: Sequence(TBL_csv) = postcodeTable->select((Suburb_locality = retrievedSuburbName)
 and (State = retrievedStateName))

Let postcodeAsInteger: Integer = selectedRowOrRows.Postcode ->flatten()->last()

Let result: Real = postcodeAsInteger.oclAsType(Real)

result.toChar()
```

DB_Postocdes in this case is a csv file. The MO Gello Authoring tool will also load SQL Lite file and Firebird files.The package presents as a sequence of rows. Here is a screen shot of the simple structure of this example:

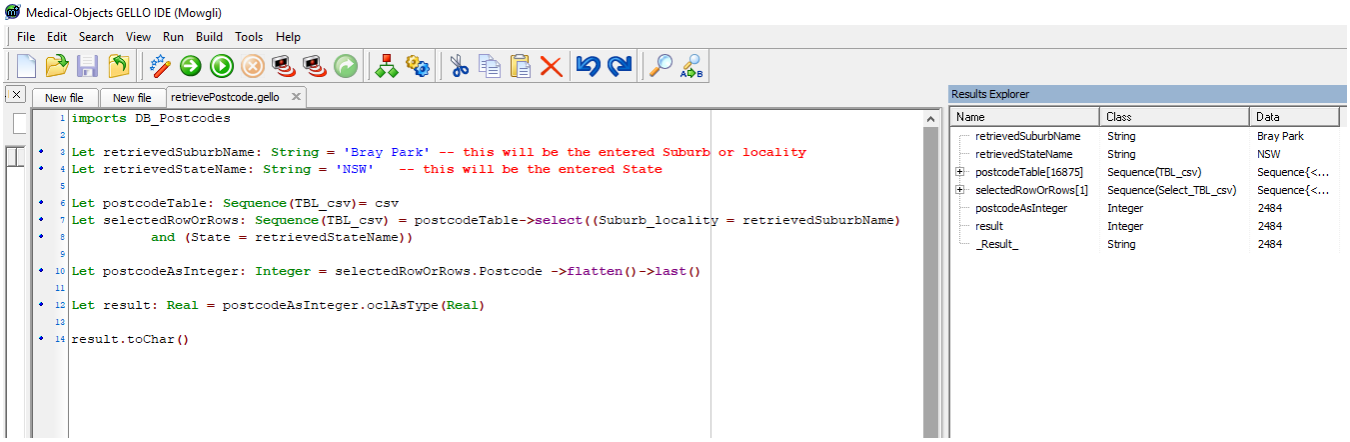
	A	B	C	D
1	Postcode	Suburb_locality	State	
2	200	Australian National University	ACT	
3	221	Barton	ACT	
4	2540	Jervis Bay	ACT	
5	2540	Hmas Creswell	ACT	
6	2540	Wreck Bay	ACT	
7	2600	Deakin	ACT	
8	2600	Canberra	ACT	
9	2600	Parkes	ACT	
10	2600	Parliament House	ACT	
11	2600	Harman	ACT	
12	2600	Deakin West	ACT	
13	2600	Capital Hill	ACT	
14	2600	Barton	ACT	
15	2600	Hmas Harman	ACT	
16	2600	Russell	ACT	
17	2600	Duntroon	ACT	
18	2600	Yarralumla	ACT	
19	2601	Canberra	ACT	
20	2601	Acton	ACT	
21	2601	City	ACT	
22	2601	Black Mountain	ACT	
23	2602	Watson	ACT	

This is the import screen:

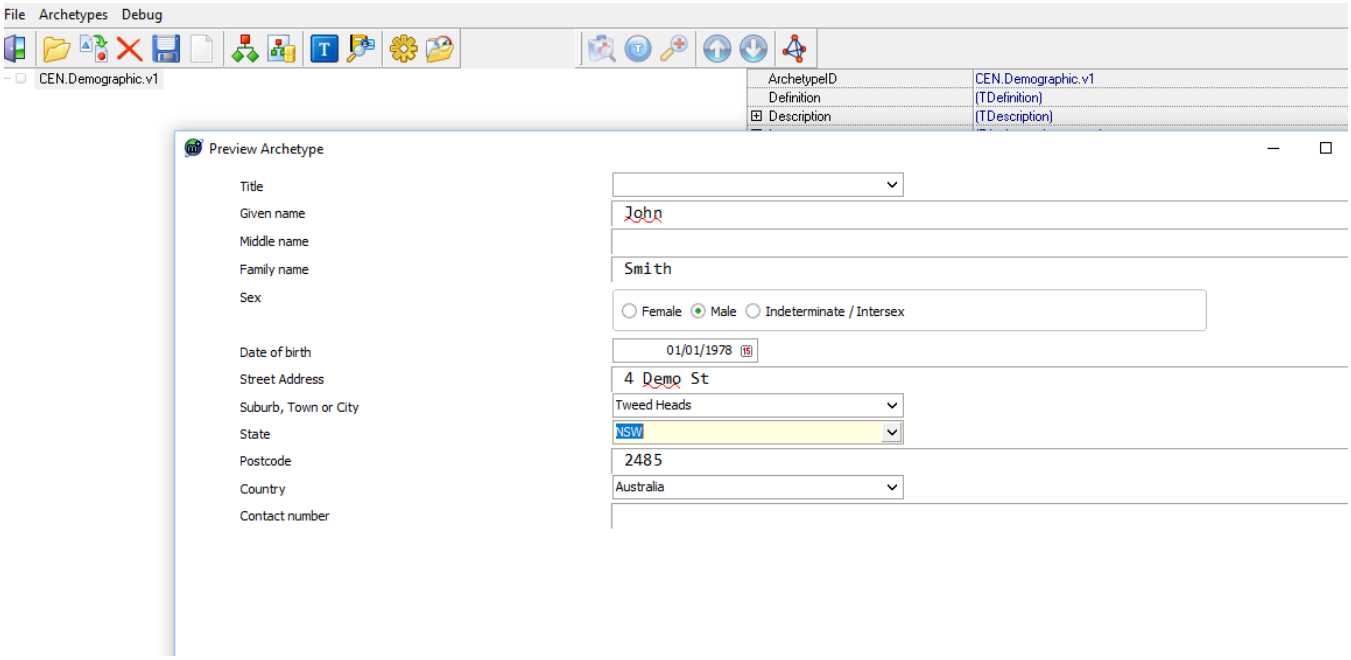

Configuration Editor - Medical-Objects Gello IDE (Client)
Auto-Upgrade
Gello SQL Setup
HTTP Client
Logging
PGP Configuration
Server Group Manager
Server Setup
Snomed Lookup
Specific Servers
Gello SQL Setup
Add...
Remove
Modify...
Data Source
Queries
Add...
Remove
Modify...



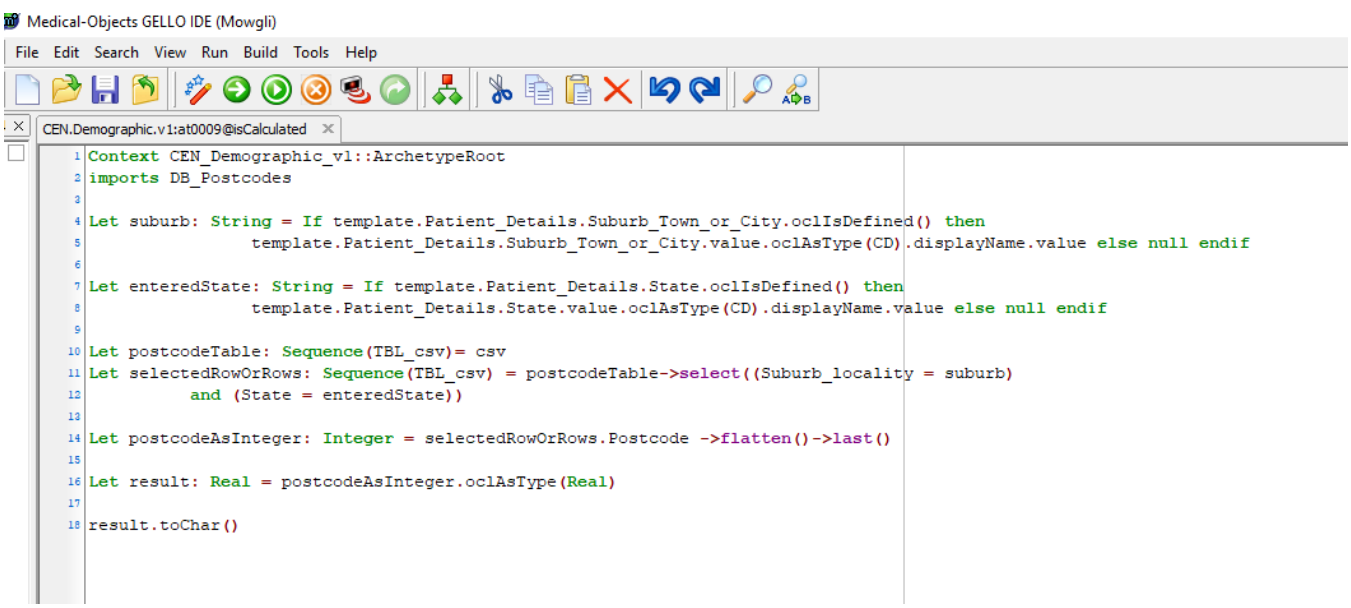
Here is the code running:



The Suburb and the State can be captured from the UI of an archetype which runs this code in the *onCalculate* field for a Postcode Element:



Here is the modified code that does this:




```
Context CEN_Demographic_v1::ArchetypeRoot
imports DB_Postcodes

Let suburb: String = If template.Patient_Details.Suburb_Town_or_City.oclIsDefined() then
                template.Patient_Details.Suburb_Town_or_City.value.oclAsType(CD).displayName.value else null endif

Let enteredState: String = If template.Patient_Details.State.oclIsDefined() then
                template.Patient_Details.State.value.oclAsType(CD).displayName.value else null endif

Let postcodeTable: Sequence(TBL_csv)= csv
Let selectedRowOrRows: Sequence(TBL_csv) = postcodeTable->select((Suburb_locality = suburb)
          and (State = enteredState))

Let postcodeAsInteger: Integer = selectedRowOrRows.Postcode ->flatten()->last()

Let result: Real = postcodeAsInteger.oclAsType(Real)

result.toChar()
```