DAY - 17

Made a RDF on Banking Management System and queried it using SPRAQL on Apache Server.

My Turtle file:

@prefix ex: <http://example.org/turtle#> .

@prefix xsd: <http://www.w3.org/2001/XMLSchema#> .

ex:Bank   ex:is_an "organisation"^^xsd:string;

         ex:has_name "Punjab_National_Bank"^^xsd:string .

ex:Punjab_National_Bank ex:founded_in   "1894"^^xsd:integer;

         ex:has_customer "Suman"^^xsd:string;

         ex:has_customer "Sukhjit"^^xsd:string;

         ex:has_customer "Dhanjot"^^xsd:string;

         ex:has_customer "Rajwinder"^^xsd:string .

ex:Suman ex:lives_in   "Chandigarh"^^xsd:string;

         ex:has_gender "Female"^^xsd:string;

         ex:has_age   "19"^^xsd:integer;

         ex:born_on   "2004-10-20"^^xsd:dateTime;

         ex:has_account "saving_account"^^xsd:string .

ex:Sukhjit ex:lives_in   "Mohali"^^xsd:string;

         ex:has_gender "Female"^^xsd:string;

         ex:has_age   "40"^^xsd:integer;

         ex:born_on   "1985-03-16"^^xsd:dateTime;

         ex:has_account "current_account"^^xsd:string .

ex:Dhanjot ex:lives_in   "Pataila"^^xsd:string;

         ex:has_gender "Male"^^xsd:string;

         ex:has_age   "17"^^xsd:integer;

ex:born_on   "2006-05-17"^^xsd:dateTime;

ex:has_account "joint_account"^^xsd:string .

ex:Rajwinder ex:lives_in   "Ludhiana"^^xsd:string;

ex:has_gender   "Male"^^xsd:string;

ex:has_age   "50"^^xsd:integer;

ex:born_on   "1975-05-06"^^xsd:dateTime;
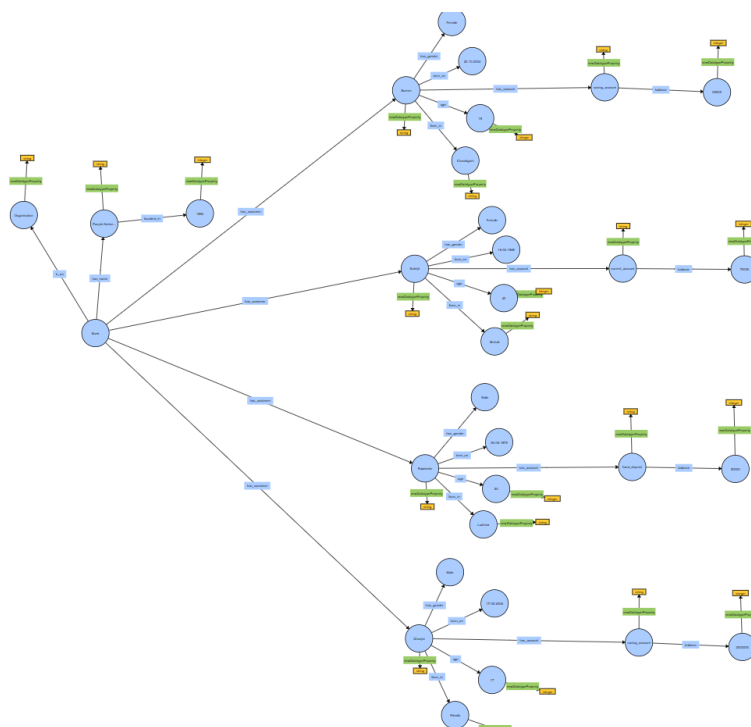
ex:has_account "fixed_deposit"^^xsd:string .

ex:saving_account ex:has_balance "60000"^^xsd:integer .

ex:current_account ex:has_balance "70000"^^xsd:integer .

ex:fixed_deposit   ex:has_balance "50000"^^xsd:integer .

ex:joint_account   ex:has_balance "2000000"^^xsd:integer .

<mark>The Graph:</mark>

/Banking_Management_System/sparql

```
1  #Find all customers of Punjab National Bank:
2  PREFIX ex: <http://example.org/turtle#>
3  SELECT ?customer
4  WHERE {
5    ex:Punjab_National_Bank ex:has_customer ?customer .
6  }
```

	customer
1	Suman
2	Sukhjit
3	Dhanjot
4	Rajwinder

Showing 1 to 4 of 4 entries

```
#Find age of female customers
PREFIX ex: <http://example.org/turtle#>
PREFIX xsd: <http://www.w3.org/2001/XMLSchema#>
SELECT ?customer ?age ?gender
WHERE {
  ?customer ex:has_gender "Female"^^xsd:string .
  ?customer ex:has_age ?age .
}
```

	customer	age
1	<http://example.org/turtle#Suman>	"19"^^<http://www.w3.org/2001/XMLSchema#integer>
2	<http://example.org/turtle#Sukhjit>	"40"^^<http://www.w3.org/2001/XMLSchema#integer>

Showing 1 to 2 of 2 entries

```sparql
18  #Find the total balance for all account types:
19  PREFIX ex: <http://example.org/turtle#>
20
21  SELECT ?accountType (SUM(?balance) AS ?totalBalance)
22  WHERE {
23    ?accountType ex:has_balance ?balance .
24  }
25  GROUP BY ?accountType
26
```

accountType	totalBalance
1 <http://example.org/turtle#saving_account>	"60000"^^<http://www.w3.org/2001/XMLSchema#integer>
2 <http://example.org/turtle#fixed_deposit>	"50000"^^<http://www.w3.org/2001/XMLSchema#integer>
3 <http://example.org/turtle#joint_account>	"2000000"^^<http://www.w3.org/2001/XMLSchema#integer>
4 <http://example.org/turtle#current_account>	"70000"^^<http://www.w3.org/2001/XMLSchema#integer>

Showing 1 to 4 of 4 entries