

Due Friday, October 3

1 (5 pts.). Write a Jena application that creates a vCard that describes you and write out the model in N3 format. For creating vCard representations in general, see `IntroRDF_and_JenaEsterline.ppt`, slides 2-7. For writing an RDF model to file, see slides 28-30 of the same.

2 (7 pts.). The following is a partial listing of file `cd.n3`, which you download from the location in Blackboard where you downloaded this assignment. (Additional CDs will be added shortly.)

```
@prefix rdf:      <http://www.w3.org/1999/02/22-rdf-syntax-ns#> .
@prefix cd:      <http://www.recshop.fake/cd#> .
@prefix cdterms: <http://www.recshop.fake/terms#> .
@prefix vcard:   <http://www.w3.org/2001/vcard-rdf/3.0#> .
cd:7 cdterms:artist _:bobbydylan.
cd:7 cdterms:title "Empire Burlesque";
    cdterms:country "US";
    cdterms:company "Columbia";
    cdterms:price "10.90";
    cdterms:year "1985".
cd:8 cdterms:artist _:bonnietyler.
cd:8 cdterms:title "Hide your Heart";
    cdterms:country "UK";
    cdterms:company "CBS Records";
    cdterms:price "9.90";
    cdterms:year "1988".
_:bobbydylan vcard:FN "Bob Dylan";
    vcard:N
    [ vcard:Family "Zimmerman";
      vcard:Given "Robert"].
_:bonnietyler vcard:FN "Bonnie Tyler";
    vcard:N
    [ vcard:Family "Hopkins";
      vcard:Given "Gaynor"].
```

Write a SPARQL query on an ARQ file (to be executed from the command line) that uses `cd.n3` and queries for all CDs whose artist is Bob Dylan.

3 (8 pts.). The following is a listing of file `first_dataN.n3`, which you download from Blackboard.

```
@prefix rdf:      <http://www.w3.org/1999/02/22-rdf-syntax-ns#> .
@prefix vCard:   <http://www.w3.org/2001/vcard-rdf/3.0#> .
<http://somewhere/RebeccaSmith/>
  vCard:FN "Becky Smith" ;
  vCard:N [ vCard:Family "Smith" ;
            vCard:Given "Rebecca"
          ] .
<http://somewhere/MattJones/>
  vCard:FN "Matt Jones" ;
  vCard:N [ vCard:Family "Jones" ;
            vCard:Given "Matthew"
          ] .
<http://somewhere/SarahJones/>
  vCard:FN "Sarah Jones" ;
  vCard:N [ vCard:Family "Jones" ;
            vCard:Given "Sarah"
          ] .
<http://somewhere/JohnSmith/>
  vCard:FN "John Smith" ;
  vCard:N [ vCard:Family "Smith" ;
            vCard:Given "John"
          ] .
<http://somewhere/JohnSmith/>
  vCard:FN "Johnny Jones" ;
  vCard:N [ vCard:Family "Jones" ;
            vCard:Given "John"
          ] .
```

Write a Java/Jena/SPARQL program that inputs `first_dataN.n3` and outputs

- the full name of all those with family name “Jones” and
- the family name of all those with given name “John”

For submission, zip the N3 and Java files into a single file.