

作业十（补充）

58119125 蒋卓洋

1. Translate the following natural language sentences into SPARQL.

1) What are all the countries and their capitals in Africa?

(given

<http://dbpedia.org/property/continent>,
<http://dbpedia.org/resource/Africa>,
<http://dbpedia.org/ontology/Country>,
<http://dbpedia.org/ontology/capital>)

```
PREFIX dbpedia:<http://dbpedia.org/resource/>
PREFIX dbpedia-pp:<http://dbpedia.org/property/>
PREFIX dbpedia-owl:<http://dbpedia.org/ontology/>
PREFIX rdf:<http://www.w3.org/1999/02/22-rdf-syntax-ns#>
```

```
SELECT ?country ?capital
WHERE{
    ?country rdf:type dbpedia-owl:Country;
             dbpedia-pp:continent dbpedia:Africa;
             dbpedia-owl:capital ?capital.
}
```

2) What are the devices whose manufacturers are in Korea or Japan?

(given

<http://dbpedia.org/property/locationCountry>,
<http://dbpedia.org/resource/Korea>,
<http://dbpedia.org/resource/Japan>,
<http://dbpedia.org/ontology/manufacture>,
<http://dbpedia.org/ontology/Device>)

```
PREFIX dbpedia:<http://dbpedia.org/resource/>
PREFIX dbpedia-pp:<http://dbpedia.org/property/>
PREFIX dbpedia-owl:<http://dbpedia.org/ontology/>
PREFIX rdf:<http://www.w3.org/1999/02/22-rdf-syntax-ns#>
```

```
SELECT ?device
WHERE{
    ?device rdf:type dbpedia-owl:Device.
    ?device dbpedia-owl:manufacturer ?x.
    {?x dbpedia-pp:locationCountry dbpedia:Korea}
    UNION
    {?x dbpedia-pp:locationCountry dbpedia:Japan}
}
```

