

# Example: Gathering Collections

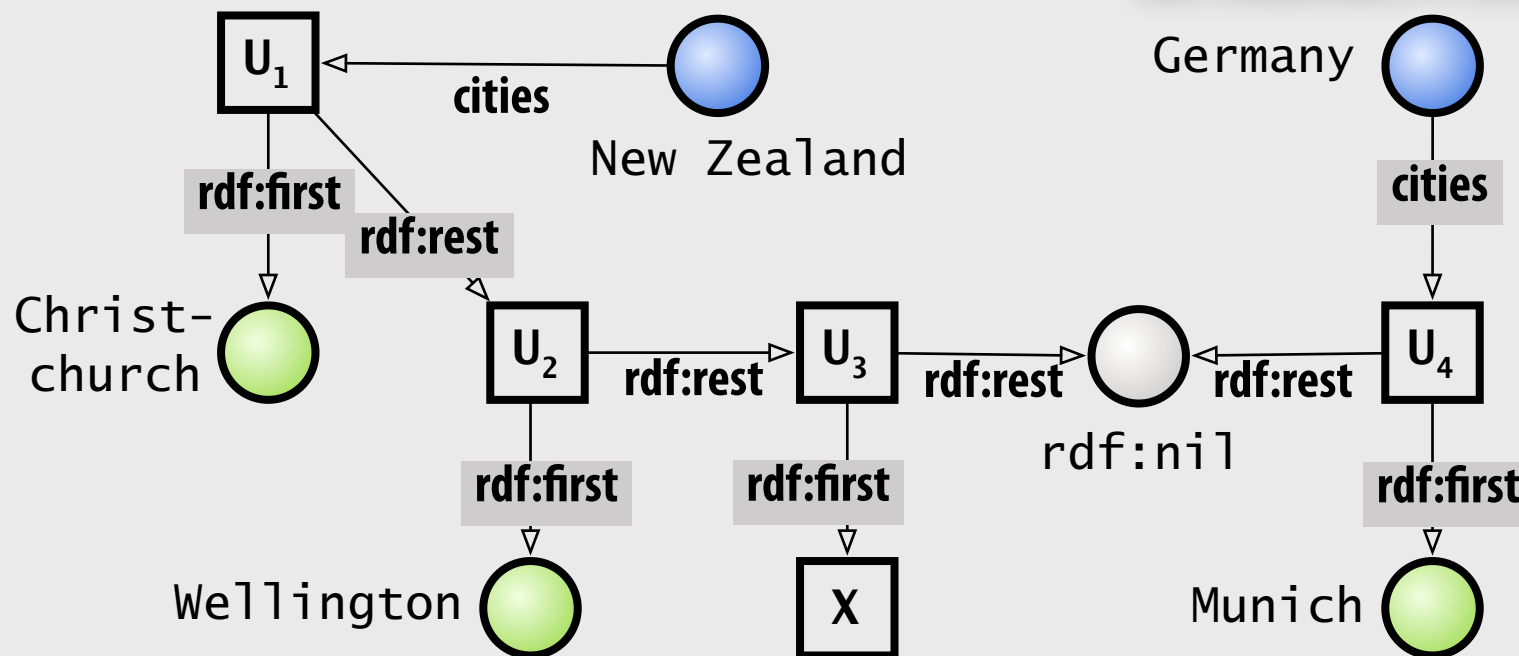
```
FORALL City City' City'' Country
IF      City      locatedIn Country,
        City'     locatedIn Country,
        City      <_lex City',
1 NOT( City''    locatedIn Country,
        City      <_lex City'',
        City''    <_lex City' )
THEN   City      predecessor City'
```

```
FORALL City EXISTS Co11
        FORALL City' Country
IF      City      locatedIn Country,
2 NOT( City'     locatedIn Country,
        City'     predecessor City )
THEN   Co11      rdf:first City
```

```
FORALL Co11 EXISTS Co11'
        FORALL City City'
IF      Co11      rdf:first City,
        City      predecessor City'
3 THEN   Co11      rdf:rest Co11',
        Co11'     rdf:first City
```

```
4 FORALL Co11 City City'
IF      Co11      rdf:first City,
        NOT City  predecessor City'
THEN   Co11      rdf:rest rdf:nil
```

## Gathered Collections



— all relations from the data graph are retained in the result