SPARQL Queries for Data Management

Count entities without labels

These examples show how to count the entities in your VIVO that do not have labels. In each query, the entities of interest are selected using type, then OPTIONAL is used to include entities with and without labels, FILTER is used to select only those results for which there is no label value, that is, ?label is not bound.

The resulting collection of entities is counted using COUNT(DISTINCT ?s) in the SELECT statement.

The same pattern can be used to count grants (vivo:Grant), organizations (foaf:Organization), or people (foaf:Person) with labels.

Count agents without labels

```
SELECT (COUNT(DISTINCT ?s) AS ?count)
WHERE {
    ?s rdf:type foaf:Agent .
    OPTIONAL {?s rdfs:label ?label .}
    FILTER(!bound(?label))
}
```

Count information resources without labels

```
SELECT (COUNT(DISTINCT ?s) AS ?count)
WHERE {
    ?s rdf:type vivo:InformationResource .
    OPTIONAL {?s rdfs:label ?label .}
    FILTER(!bound(?label))
}
```

Using a nested query to get multiple counts

The above queries can be combined in a single query which returns multiple counts.

Using a nested query to get multiple counts

```
SELECT ?count_agents ?count_information_resources
WHERE {
    {
    SELECT (COUNT(DISTINCT ?s) AS ?count_agents)
    WHERE {
        ?s rdf:type foaf:Agent .
        OPTIONAL {?s rdfs:label ?label .}
        FILTER(!bound(?label))
    }
    }


    {
    SELECT (COUNT(DISTINCT ?s) AS ?count_information_resources)
    WHERE {
        ?s rdf:type vivo:InformationResource .
        OPTIONAL {?s rdfs:label ?label .}
        FILTER(!bound(?label))
    }
    }
}
```