Entrega Final - Queries

Estão listados neste arquivo os códigos das principais *queries* efetuadas para experimentação no trabalho.

1 - Albums that mostly used A major
PREFIX dc: <http://purl.org/dc/elements/1.1/>
PREFIX mo: <http://purl.org/ontology/mo/>
PREFIX rdfs: <http://www.w3.org/2000/01/rdf-schema#>
PREFIX af: <http://purl.org/ontology/af/>

SELECT ?album_title (COUNT(distinct ?song_iri) as ?key_count)
WHERE {
  ?album_iri a mo:Record.
  ?album_iri dc:title ?album_title.
  ?album_iri mo:track ?track_iri.

  BIND (STRBEFORE(STR(?track_iri),"track_") AS ?song_iri).

  ?key_iri a af:KeySegment.
  ?key_iri rdfs:label "A".
  FILTER regex(str(?key_iri), str(?song_iri)).

} group by ?album_title order by desc(?key_count)

2 - Albums that used minor keys the most
PREFIX dc: <http://purl.org/dc/elements/1.1/>
PREFIX mo: <http://purl.org/ontology/mo/>
PREFIX rdfs: <http://www.w3.org/2000/01/rdf-schema#>
PREFIX af: <http://purl.org/ontology/af/>

SELECT ?album_title (COUNT(distinct ?song_iri) as ?key_count)
WHERE {
  ?album_iri a mo:Record.
  ?album_iri dc:title ?album_title.
  ?album_iri mo:track ?track_iri.

  BIND (STRBEFORE(STR(?track_iri),"track_") AS ?song_iri).

  ?key_iri a af:KeySegment.
  ?key_iri rdfs:label ?key.
  FILTER regex(str(?key), str("minor")).
  FILTER regex(str(?key_iri), str(?song_iri)).

} group by ?album_title order by desc(?key_count)

3 - Chords by Key - Updated
PREFIX event: <http://purl.org/NET/c4dm/event.owl#>

```
PREFIX rdfs: <http://www.w3.org/2000/01/rdf-schema#>
PREFIX af: <http://purl.org/ontology/af/>
PREFIX tl: <http://purl.org/NET/c4dm/timeline.owl#>
PREFIX dc: <http://purl.org/dc/elements/1.1/>

SELECT ?key ?chord
WHERE {
   ?_iri dc:title "Something".
   BIND (STRBEFORE(STR(?_iri),"track_") AS ?iri)
      ?key_iri a af:KeySegment.
      ?key_iri rdfs:label ?key.
      ?key_iri event:time / tl:beginsAt ?keyBeginsAt.
      ?key_iri event:time / tl:duration ?keyDuration.
   ?chord_iri a af:ChordSegment.
      ?chord_iri rdfs:label ?chord.
   ?chord_iri event:time / tl:beginsAt ?chordBeginsAt.
   FILTER(?keyBeginsAt < ?chordBeginsAt && ?chordBeginsAt < (?keyBeginsAt +
?keyDuration))
   FILTER regex(str(?chord_iri), str(?iri)). FILTER regex(str(?key_iri), str(?iri)).
}
```

4 - Chords by Segment - Updated
```
PREFIX dc: <http://purl.org/dc/elements/1.1/>
PREFIX event: <http://purl.org/NET/c4dm/event.owl#>
PREFIX rdfs: <http://www.w3.org/2000/01/rdf-schema#>
PREFIX af: <http://purl.org/ontology/af/>
PREFIX tl: <http://purl.org/NET/c4dm/timeline.owl#>

SELECT ?segment ?chord
WHERE {
   ?_iri dc:title "Something".
   BIND (STRBEFORE(STR(?_iri),"track_") AS ?iri)
      ?segment_iri a af:StructuralSegment.
      ?segment_iri rdfs:label ?segment.
      ?segment_iri event:time / tl:beginsAt ?segmentBeginsAt.
      ?segment_iri event:time / tl:duration ?segmentDuration.
   ?chord_iri a af:ChordSegment.
      ?chord_iri rdfs:label ?chord.
   ?chord_iri event:time / tl:beginsAt ?chordBeginsAt.
   FILTER(?segmentBeginsAt < ?chordBeginsAt && ?chordBeginsAt < (?segmentBeginsAt
+ ?segmentDuration)).
   FILTER regex(str(?chord_iri), str(?iri)). FILTER regex(str(?segment_iri), str(?iri)).
}
```

5 - Most used chords
```
PREFIX rdfs: <http://www.w3.org/2000/01/rdf-schema#>
PREFIX af: <http://purl.org/ontology/af/>
```

```
SELECT ?chord (COUNT(?chord) as ?chord_count)
WHERE {
  ?chord_iri a af:ChordSegment.
  ?chord_iri rdfs:label ?chord.
} group by ?chord order by desc(?chord_count) limit 10
```

6 - Most used key - updated
```
PREFIX rdfs: <http://www.w3.org/2000/01/rdf-schema#>
PREFIX af: <http://purl.org/ontology/af/>

PREFIX mo: <http://purl.org/ontology/mo/>
SELECT ?key (COUNT(distinct ?song_iri) as ?key_count)
WHERE {
  ?key_iri a af:KeySegment.
  ?key_iri rdfs:label ?key.
  ?track_iri a mo:Track.
  BIND (STRBEFORE(STR(?track_iri),"track_") AS ?song_iri).
  FILTER regex(str(?key_iri), str(?song_iri)).
} group by ?key order by desc(?key_count) limit 11
```

7 - Number of songs per album
```
PREFIX mo: <http://purl.org/ontology/mo/>
PREFIX dc: <http://purl.org/dc/elements/1.1/>

select ?album_title (count(?track_iri) as ?tracks) where {
    ?album_iri a mo:Record.
    ?album_iri dc:title ?album_title.
    ?album_iri mo:track ?track_iri.
} group by ?album_title order by desc(?tracks)
```

8 - Songs by album
```
PREFIX mo: <http://purl.org/ontology/mo/>
PREFIX dc: <http://purl.org/dc/elements/1.1/>

select ?songtitle where {
    ?s dc:title "Rubber Soul".
    ?s mo:track ?track.
    ?track dc:title ?songtitle
} ORDER BY ?track
```

9 - Songs that change key
```
PREFIX rdfs: <http://www.w3.org/2000/01/rdf-schema#>
PREFIX af: <http://purl.org/ontology/af/>
PREFIX mo: <http://purl.org/ontology/mo/>

SELECT ?song_iri (COUNT(?key_iri) as ?key_count)
WHERE {
```

```
?key_iri a af:KeySegment.
?key_iri rdfs:label ?key.
?track_iri a mo:Track.
BIND (STRBEFORE(STR(?track_iri),"track_") AS ?song_iri).
FILTER regex(str(?key_iri), str(?song_iri)).
FILTER NOT EXISTS{?key_iri rdfs:label "Silence"}.
} group by ?song_iri order by desc(?key_count) limit 10
```

10 - Treating IRI substrings

```
PREFIX dc: <http://purl.org/dc/elements/1.1/>
PREFIX af: <http://purl.org/ontology/af/>
PREFIX rdfs: <http://www.w3.org/2000/01/rdf-schema#>
select ?chord
where {
   ?iri dc:title "Something" .
   BIND (STRBEFORE(STR(?iri),"track_") AS ?_iri)
   ?chord_iri a af:ChordSegment.
   ?chord_iri rdfs:label ?chord.
   FILTER regex(str(?chord_iri), str(?_iri))
} limit 100
```