Semantic Web
- Anime List -

DAPI

Master in Informatics and Computing Engineering

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Domain and main concept

Domain: Animes

Main Concepts

- Anime
- Producer
- Licensor
- Studio
- Genre
- Status
- Rating
- Source
- Type

Main Properties

- Name
- Dates of start and finish
- Broadcast details
- Number of episodes
- Synopsis
- Rating Scores given on some rating web platforms
- Relations between animes
- Relations between an anime and instances of the other concepts (e.g. Producers).

Existing ontologies

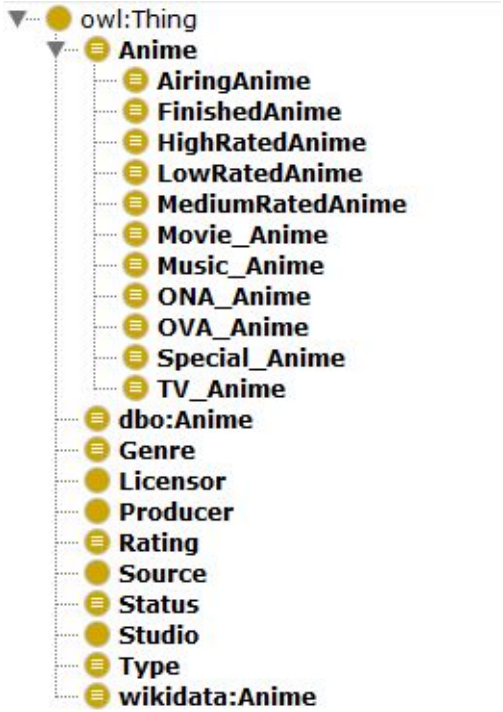
equivalent

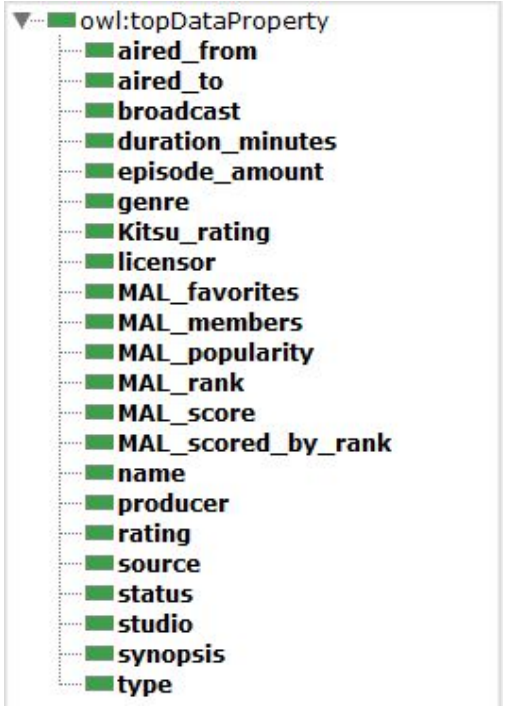
Q1107
http://mappings.dbpedia.org/index.php/OntologyClass:Anime

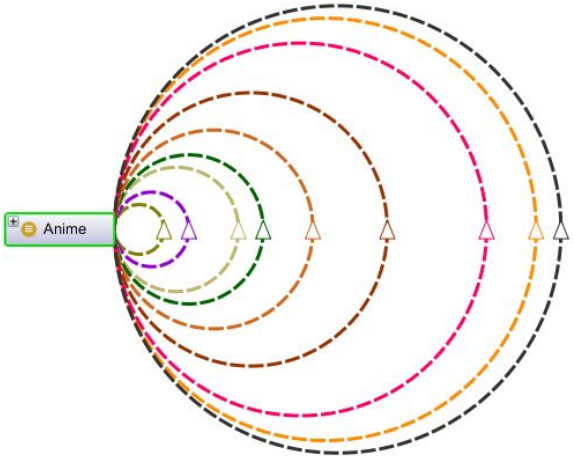
Anime
http://dbpedia.org/ontology/Anime

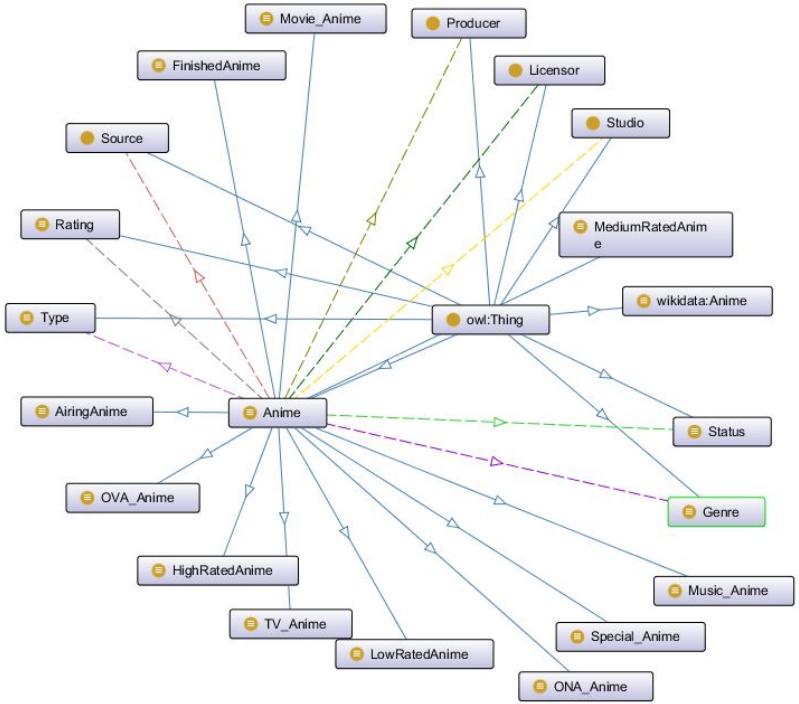
Building an Ontology

Animes Ontology









has

- has individual
- has subclass
- hasAlternativeSetting (Domain>Range)
- hasAlternativeVersion (Domain>Range)
- hasFullStory (Domain>Range)
- hasParentStory (Domain>Range)
- hasPrequel (Domain>Range)
- hasSequel (Domain>Range)
- hasSideStory (Domain>Range)
- hasSpinOff (Domain>Range)
- hasSummary (Domain>Range)

has

- has individual
- has subclass
- hasAlternativeSetting (Domain>Range)
- hasAlternativeVersion (Domain>Range)
- hasFullStory (Domain>Range)
- hasGenre (Domain>Range)
- hasLicensor (Domain>Range)
- hasParentStory (Domain>Range)
- hasPrequel (Domain>Range)
- hasProducer (Domain>Range)
- hasRating (Domain>Range)
- hasSequel (Domain>Range)
- hasSideStory (Domain>Range)
- hasSource (Domain>Range)
- hasSpinOff (Domain>Range)
- hasStatus (Domain>Range)
- hasStudio (Domain>Range)
- hasSummary (Domain>Range)
- hasType (Domain>Range)

Queries

- Retrieve the japanese name of an anime by its english name.

```
SELECT ?name
 WHERE {
?x ont:name  "Space Battleship Tiramisu"@en ;
    ont:name  ?name .
    FILTER langMatches( lang(?name), "jp" ) }
```

name
"Uchuu Senkan Tiramisù"@jp

Queries

➜ Retrieve all animes with a medium rated score on “My Anime List”, ordered from higher to lower.

```
SELECT ?name ?rating
WHERE {
?anime  a ont:Anime  ; ont:name ?name ; ont:MAL_score ?rating
FILTER (langMatches( lang(?name), "en" ) && (?rating >= 5) && (?rating < 8)) .
}
ORDER BY DESC(?rating)
```

name	rating
"Tokyo Ghoul:re"@en	"7.89"^^<http://www.w3.org/2001/XMLSchema#float>
"Sword Art Online"@en	"7.64"^^<http://www.w3.org/2001/XMLSchema#float>
"Tokyo Ghoul √A"@en	"7.45"^^<http://www.w3.org/2001/XMLSchema#float>
"Sword Art Online Alternative: Gun Gale Online"@en	"7.3"^^<http://www.w3.org/2001/XMLSchema#float>
"Sword Art Online II"@en	"7.2"^^<http://www.w3.org/2001/XMLSchema#float>
"Space Battleship Tiramisu"@en	"6.08"^^<http://www.w3.org/2001/XMLSchema#float>
"Regalia: The Three Sacred Stars"@en	"6.03"^^<http://www.w3.org/2001/XMLSchema#float>

Queries

➜ Retrieve the total amount of animes for each genre registered in the ontology, ordered by higher to lower.

```
SELECT ?genre (COUNT(DISTINCT ?anime) AS ?animes)
WHERE {
  ?anime rdf:type ont:Anime ; ont:hasGenre ?genre.
}
GROUP BY ?genre
ORDER BY DESC(?animes)
```

genre	animes
ActionGenre	"12"^^<http://www.w3.org/2001/XMLSchema#integer>
Sci-FiGenre	"7"^^<http://www.w3.org/2001/XMLSchema#integer>
FantasyGenre	"6"^^<http://www.w3.org/2001/XMLSchema#integer>
GameGenre	"5"^^<http://www.w3.org/2001/XMLSchema#integer>
DramaGenre	"5"^^<http://www.w3.org/2001/XMLSchema#integer>
MysteryGenre	"5"^^<http://www.w3.org/2001/XMLSchema#integer>
SeinenGenre	"5"^^<http://www.w3.org/2001/XMLSchema#integer>
PsychologicalGenre	"4"^^<http://www.w3.org/2001/XMLSchema#integer>
ThrillerGenre	"3"^^<http://www.w3.org/2001/XMLSchema#integer>
RomanceGenre	"3"^^<http://www.w3.org/2001/XMLSchema#integer>
AdventureGenre	"3"^^<http://www.w3.org/2001/XMLSchema#integer>
SupernaturalGenre	"3"^^<http://www.w3.org/2001/XMLSchema#integer>
HorrorGenre	"2"^^<http://www.w3.org/2001/XMLSchema#integer>

Queries

➜ Retrieve all the animes that have the word “human” in its synopsis

```
SELECT distinct ?name  (group_concat(?genreName; separator=", ") as ?genres) ?synopsis WHERE {
?x ont:name  ?name; ont:hasGenre ?genre; ont:synopsis ?synopsis.
?genre ont:genre ?genreName
FILTER( regex(?synopsis, "human"))
} group by ?name ?synopsis
```

name	genres	synopsis
"Tokyo Ghoul:re"@en	"Seinen, Action, Psychological, Drama, Horror, Supernatural, Mystery"	"Two years have passed since the CCG's raid on Anteiku. Although the atmosphere in Tokyo has changed d
"Tokyo Ghoul"@en	"Seinen, Drama, Action, Supernatural, Horror, Mystery, Psychological"	"Lurking within the shadows of Tokyo are frightening beings known as "ghouls," who satisfy their hunger by
"Shingeki no Kyojin"@jp	"Mystery, Shounen, Super Power, Military, Drama, Fantasy, Action"	"Centuries ago, mankind was slaughtered to near extinction by monstrous humanoid creatures called titans
"Attack on Titan"@en	"Mystery, Shounen, Super Power, Military, Drama, Fantasy, Action"	"Centuries ago, mankind was slaughtered to near extinction by monstrous humanoid creatures called titans
"Attack on Titan Season 2"@en	"Drama, Action, Shounen, Super Power, Fantasy, Military, Mystery"	"For centuries, humanity has been hunted by giant, mysterious predators known as the Titans. Three might
"Shingeki no Kyojin Season 2"@jp	"Drama, Action, Shounen, Super Power, Fantasy, Military, Mystery"	"For centuries, humanity has been hunted by giant, mysterious predators known as the Titans. Three might
"Space Battleship Tiramisu"@en	"Comedy, Space, Mecha, Sci-Fi, Seinen, Slice Of Life"	"The human race extended its life field and greed to the vast reaches of space... In Space Era 0156, a war b
"Uchuu Senkan Tiramisù"@jp	"Comedy, Space, Mecha, Sci-Fi, Seinen, Slice Of Life"	"The human race extended its life field and greed to the vast reaches of space... In Space Era 0156, a war b
"Tokyo Ghoul √A"@en	"Drama, Mystery, Psychological, Supernatural, Horror, Seinen, Action"	"Ken Kaneki has finally come to accept the monstrous, flesh-craving part of himself that he has feared and c