

## RDF(S) – Quick Intro

An example triple:

The Godfather actor Marlon Brando .  
S P O

Each element of a triple has to be uniquely identified – it has to have its *URI (Uniform Resource Identifier)*, now also referred to as *IRI (Internationalized Resource Identifier)*

PREFIX dbp: <http://dbpedia.org/resource/>

PREFIX dbo: <http://dbpedia.org/ontology/>

dbp:Marlon\_Brando dbo:starring dbp:The\_Godfather .

Defining the type of a resource:

dbp:Marlon\_Brando rdf:type dbo:Actor . # rdf stands for RDF namespace

dbp:The\_Godfather rdf:type dbo:Film .

dbo:Actor rdf:type rdfs:Class . # rdfs stands for RDF Schema namespace

dbo:Film rdf:type rdfs:Class .

Defining a subclass relation:

dbo:Actor rdfs:subClassOf dbo:Artist .

dbo:Film rdfs:subClassOf dbo:Work .

# subclass based inferences:

dbp:Marlon\_Brando rdf:type dbo:Actor . => dbp:Marlon\_Brando rdf:type dbo:Artist .

Defining domain and range of a property:

dbo:starring rdfs:domain dbo:Actor ;

rdfs:range dbo:Work .

# domain- and range-based inferences, e.g.,

X dbo:starring Y .



- <https://www.bing.com/partners/knowledgegraph>
- how it is used (in Bing Snapshots app) to improve user experience:  
<https://blogs.bing.com/search/2015/08/20/bing-announces-availability-of-the-knowledge-and-action-graph-api-for-developers/>
- DBPedia:
  - <http://dbpedia.org/>
  - compare e.g. <https://en.wikipedia.org/wiki/Belgrade> and <http://dbpedia.org/resource/Belgrade>
- Wikidata:
  - <http://www.wikidata.org/>
  - <https://www.wikidata.org/wiki/Q3711> - the author Douglas Adams
  - <https://www.wikidata.org/wiki/Q80> - Tim Berners Lee
- TBL's blog post on Gigantic Global Graph: <http://dig.csail.mit.edu/breadcrumbs/node/215>
- Linked Open Data cloud:
  - <http://lod-cloud.net/>
  - evolution of the LOD: <http://goo.gl/49p9Eh>
- Read the Web project: <http://rtw.ml.cmu.edu/rtw/>
- DiffBot:
  - <https://www.diffbot.com/>
  - an interesting article about Google's Knowledge Graph and DiffBot:  
<https://www.wired.com/2015/06/startup-shares-google-knowledge-graph-clone-everyone/>