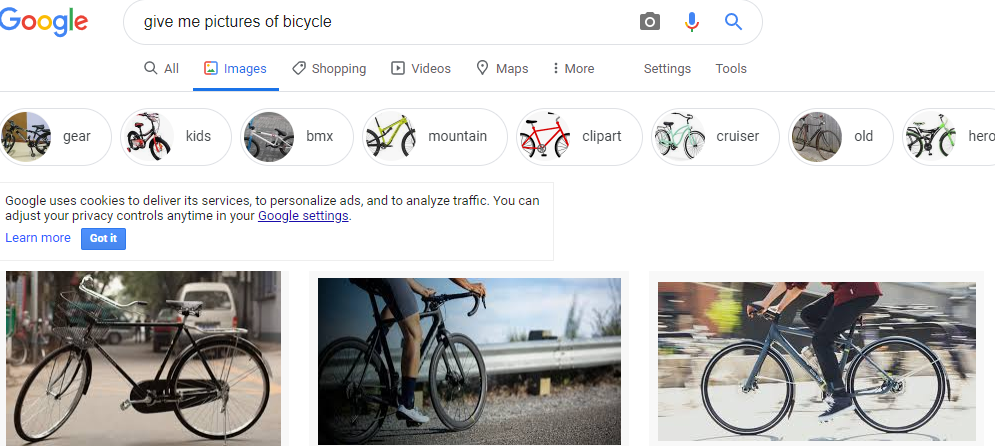
In this section, we would first try to compare the results of Qanswer with google’s. Thereafter, we would make an attempt to explain the key element that has been introduced, that allows us to detect object positions in an image.

Google: give me pictures of bicycle



Qanswer: give me pictures of bicycle

We would now try to understand how Qanswer works in general.

Qanswer is a "knowledge (or ontology) based" QA system. A knowledge base is a collection of facts that can be interpreted by a machine. Such a fact can look like this:

"Alan Turing" "student of" "Alonzo Church"

Qanswer has a million of such facts and we use them to find an answer to your question. A big advantage over traditional search engines is that different information can be combined so that we can answer questions like 'Who was a student of Alonzo Church?'.

Qanswer is using an underlying dataset [Wikidata](http://wikidata.org/) and openstreetmap data covering Europe. Wikidata contains structured knowledge about many existing entities like the [European Union](https://www.wikidata.org/wiki/Q458). It contains for example the information that the capital is Brussel. This information is converted into the triple

"European Union" "capital" "Brussel"

allowing us to answer a question like 'What is the capital of the EU?'.

Qanswer also has an open API:

curl --data "query=Who is the wife of Barack Obama" http://qanswer-core1.univ-st-etienne.fr/api/gerbil

which support the following parameters:

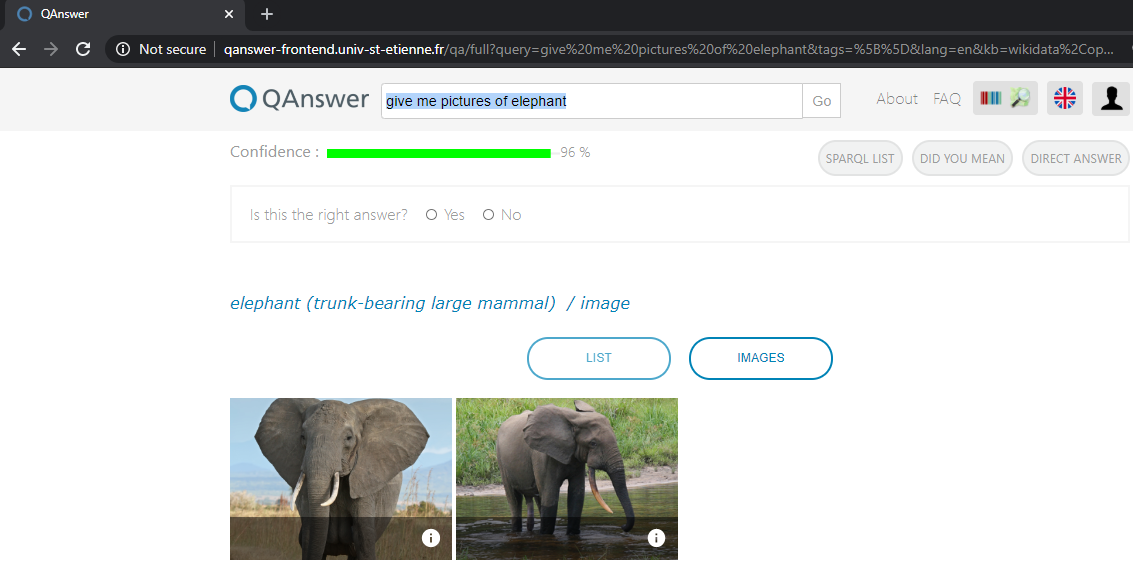
query: for the question

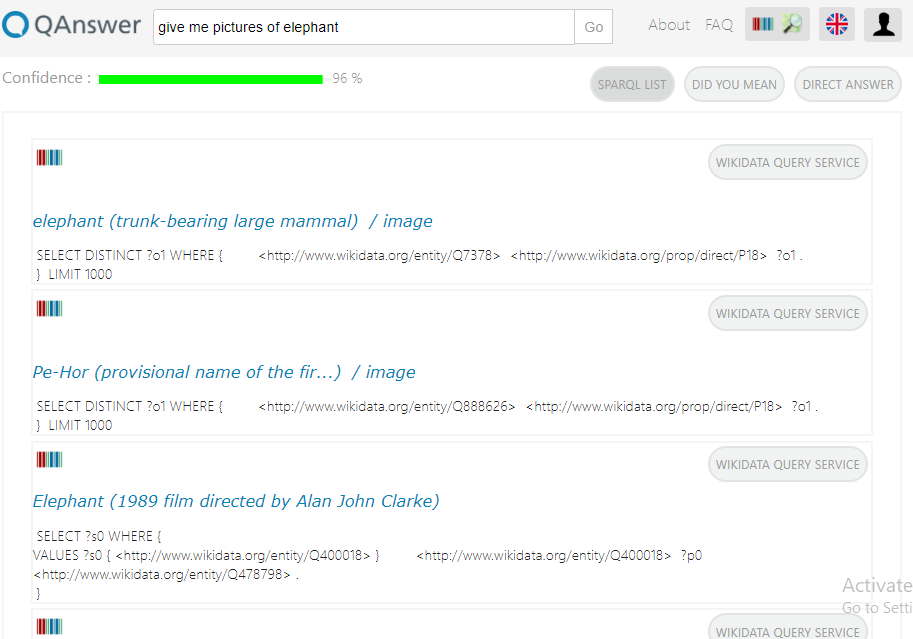
lang: for the language (currently en, fr, de, it, es, zh are supported)

kb: for the knowledge-base (currently dbpedia, wikidata, dblp, and freebase are supported)

Let's try to understand how does Qanswer image search works

For this purpose, we would try to use the same text, “give me pictures of elephant”





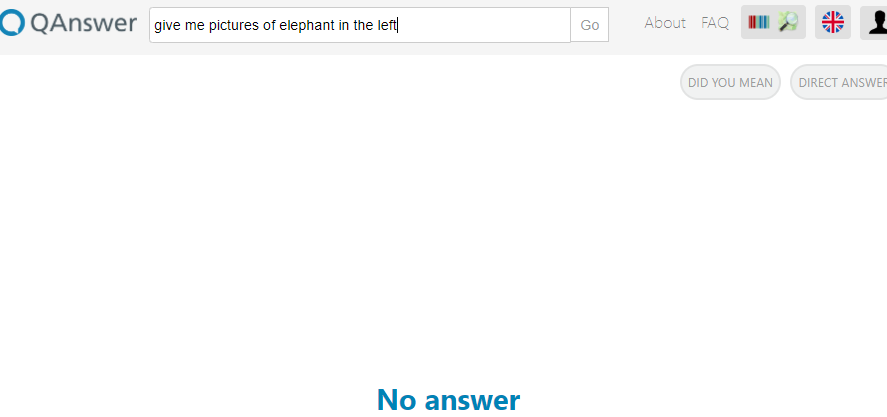
Based on the above images we can say that,

1.Qanswer converts the natural language text in triples.

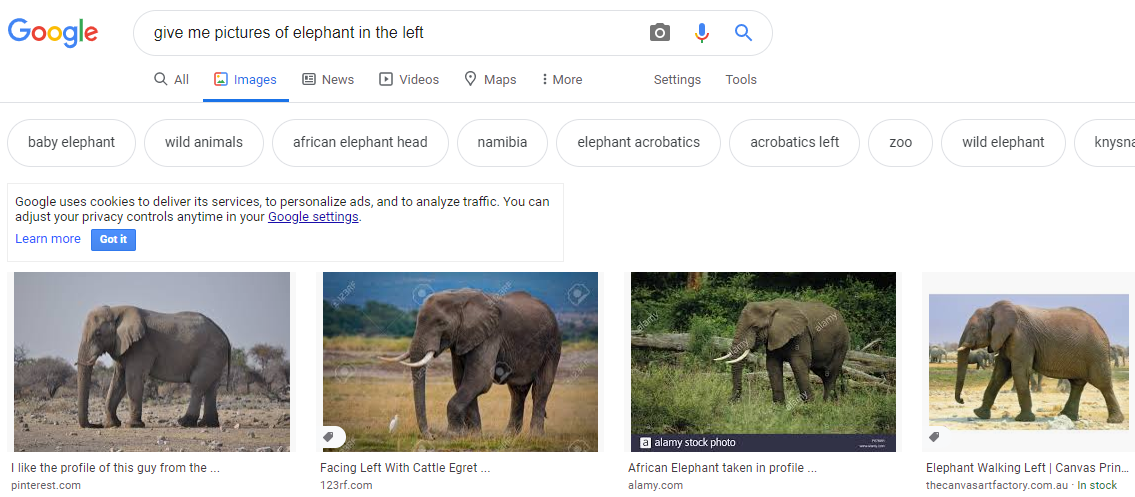
2. Qanswer runs SparQl query on structured data.

3. Qanswer’s ranking algorithm puts the appropriate Sparql query at the top, giving perfect results.

Now, let’s try to search for something else in Qanswer: “Give me pictures of elephant in the left”



Now, let’s try to make a google search about the same text.



Here, we do get some results; but just a glance on the picture would make us realise that none of elephants are in the left of the photo