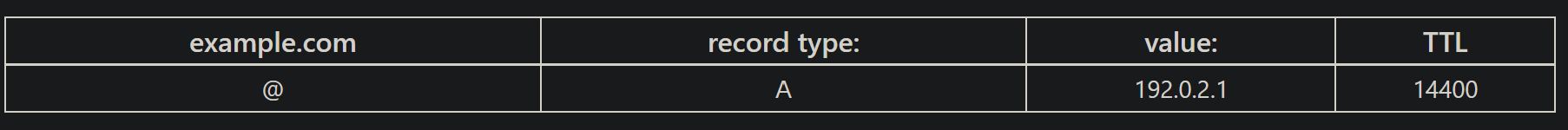
DNS A Record vs CNAME

# A Record

The "A" stands for "address" and this is the most fundamental type of DNS record: it indicates the IP address of a given domain. For example, if you pull the DNS records of cloudflare.com, the A record currently returns an IP address of: 104.17.210.9.

A records only hold IPv4 addresses. If a website has an IPv6 address, it will instead use an "AAAA" record.

Here is an example of an A record:



The "@" symbol in this example indicates that this is a record for the root domain, and the "14400" value is the TTL (time to live), listed in seconds. The default TTL for A records is 14,400 seconds. This means that if an A record gets updated, it takes 240 minutes (14,400 seconds) to take effect.

The vast majority of websites only have one A record, but it is possible to have several. Some higher profile websites will have several different A records as part of a technique called round robin load balancing, which can distribute request traffic to one of several IP addresses, each hosting identical content.

# CName

The ‘canonical name’ (CNAME) record is used in lieu of an A record, when a domain or subdomain is an alias of another domain. All CNAME records must point to a domain, never to an IP address. Imagine a scavenger hunt where each clue points to another clue, and the final clue points to the treasure. A domain with a CNAME record is like a clue that can point you to another clue (another domain with a CNAME record) or to the treasure (a domain with an A record).

For example, suppose blog.example.com has a CNAME record with a value of ‘example.com’ (without the ‘blog’). This means when a DNS server hits the DNS records for blog.example.com, it actually triggers another DNS lookup to example.com, returning example.com’s IP address via its A record. In this case we would say that example.com is the canonical name (or true name) of blog.example.com.