

# JSON-LD Logic

- Using Notation-3 data model and builtins, JSON-LD may become an alternative syntax for logic programming.

- Requires additional resource types, blank node scoping semantics, and treating named graphs as quoted graphs/formulae.

```
:Joe :parent :Alan.  
:Alan :sister :Susie.
```

```
{?x :parent ?y . ?y :sister ?z} => {?x :aunt ?z} .
```

```
# :Joe :aunt :Susie .
```

```
{  
  "@context": {  
    "@base": "http://example.org/",  
    "@vocab": "#",  
    "log": "http://www.w3.org/2000/10/swap/log#",  
    "=>": {"@id": "log:implies", "@container": "@graph"}  
  },  
  "@id": "Joe",  
  "parent": {"@id": "Alan", "sister": {"@id": "Susie"}},  
  "@included": {  
    "@graph": {  
      "@id": "?x",  
      "parent": {"@id": "?y", "sister": {"@id": "?z"}}  
    },  
    "=>": {  
      "@id": "?x",  
      "aunt": {"@id": "?x"}  
    }  
  }  
}
```

# More Information

[w3.org/2018/json-ld-wg/](https://w3.org/2018/json-ld-wg/)

[json-ld.org](https://json-ld.org)

[w3.org/community/json-ld/](https://w3.org/community/json-ld/)

[json-ld.org/presentations/JSON-LD-Lotico-2020/](https://json-ld.org/presentations/JSON-LD-Lotico-2020/)

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