What is a sub-property?

Quick Answer

In the context of a *resource object* (i.e., a resource represented as a JSON object), a **sub-property** is a synonym, or shorthand expression, for a JSON name/value pair that is subordinate to (i.e., belongs to) a parent property.

Digging Deeper

Sub-Properties are used when a regular property is a composite of other identifying properties. An example works well to illustrate:

```
{
    "shipping":{
        "address":"6649 N Blue Gum St",
        "city":"New Orleans",
        "county":"Orleans",
        "state":"LA",
        "zip":"70116"
    }
}
```

The above resource object is very similar to the one used in our *What is a property?* article. The difference is that the *shipping* property is the parent property of *address*, *city*, *county*, *state*, and *zip*. The latter are considered **sub-properties**.

Developers are not required to use sub-properties. In the above example, each of the sub-properties could have been regular properties in the resource object. However, let's suppose there are different types of addresses in the resource object. We'll use *mailing* and *shipping*. If both types of addresses were represented by regular properties then the resource object might look like this:

```
{
    "mailingAddress":"PO Box 1234",
    "mailingCity":"New Orleans",
    "mailingCounty":"Orleans",
    "mailingState":"LA",
    "mailingZip":"70116",
    "shippingAddress":"6649 N Blue Gum St",
    "shippingCity":"New Orleans",
    "shippingCounty":"Orleans",
    "shippingState":"LA",
    "shippingZip":"70116"
}
```

This isn't horrible, but we might consider sub-properties as a way to help improve the presentation and organization of the data:

```
{
    "mailing":{
        "address":"PO Box 1234",
        "city":"New Orleans",
        "county":"Orleans",
        "state":"LA",
        "zip":"70116"
    },
    "shipping":{
        "address":"6649 N Blue Gum St",
        "city":"New Orleans",
        "county":"Orleans",
        "state":"LA",
        "zip":"70116"
    }
}
```