## ## Introduction

This guide will teach you how to create a sub-category, assign a product to it, and assign the sub-category to a party. Sub-categories within Categories are used to present, sort, and further segment products in an organized way. Categories and sub-categories can also be used to trigger approvals or promotions. Please note, a product can live in multiple sub-categories.

Categories and sub-categories can be arranged in \*category trees\*. Looking at the image below, you can see a first-level category of “Office Supplies”. Within the first-level category, there are two second-level sub-categories: “Paper Products” and “Writing Utensils”. These are even further segmented into more specific third-level categories.

<img src="assets/images/docs-guides/base-use-cases/CategoryTreeExample.png" alt="CategoryTreeExample">

## ## Prerequisites

* [Create and Assign a Product](https://documentation.ordercloud.io/use-case-guides/product-catalog-management/create-and-assign-a-product)
* [Create and Assign a Category](https://documentation.ordercloud.io/use-case-guides/product-catalog-management/create-and-assign-a-category)
* [Make An Assignment](https://documentation.ordercloud.io/use-case-guides/product-catalog-management/make-an-assignment)

## ## 1. Create a Sub-Category

<div class=”api-reference”>API Reference: [Create a Category](https://documentation.ordercloud.io/api-reference#Categories\_Create)</div>

```

POST https://api.ordercloud.io/v1/catalogs/{catalogID}/categories HTTP/1.1  
Authentication: Bearer put\_access\_token\_here  
Content-Type: application/json

{  
 "ID": "PaperProducts",  
 "Name": "Paper Products",  
 "Description": "All the paper products your office needs! ",  
 "xp": null,  
 "ListOrder": 1,  
 "Active": true,  
 "ParentID": “OfficeSuppliesID”  
}

```

`CatalogID` This defines which catalog a category is in. Currently a category can only belong to one catalog.

`ParentID` is the parameter that defines which category is the level above the new category. In our example, Paper Products is a second-level category under the first-level category Office Supplies.

`ListOrder` is an optional parameter that controls the order that the categories are returned when you `LIST` them. If you want a product to be listed before another, make sure that the list order is set lower than the other.

`Active` is a boolean that controls if the category is actually displayed to the assigned party. For example, you might have a holiday or other time sensitive category that is only live to the user during particular times, and the rest of the year, it would be `"Active" : false`.

## ## 2. Assign a Product to the Sub-Category

<div class="api-reference">API Reference: [Save Product Assignment](https://documentation.ordercloud.io/api-reference#Categories\_SaveProductAssignment)</div>

```

POST https://api.ordercloud.io/v1/catalogs/{catalogID}/categories/productassignments HTTP/1.1  
Authentication: Bearer put\_access\_token\_here  
Content-Type: application/json  
  
{  
 "CategoryID": "PaperProducts",  
 "ProductID": "X",  
 "ListOrder": 1  
}

```

## ## 3. Assign the Sub-Category to a Party

<div class="api-reference">API Reference: [Save Category Assignment](https://documentation.ordercloud.io/api-reference#Categories\_SaveAssignment)</div>

```

POST https://api.ordercloud.io/v1/catalogs/{catalogID}/categories/assignments HTTP/1.1  
Authentication: Bearer put\_access\_token\_here  
Content-Type: application/json  
  
{  
 "CategoryID": "PaperProducts",  
 "BuyerID": "{buyerID}",  
 "UserID": "{userID}",  
 "UserGroupID": "{groupID}"  
}

```

<div class="note">When you make this assignment, you must include the party or parties you want to assign the category too. Review the core concept of Assignments [here](https://documentation.ordercloud.io/platform-guides/core-concepts/assignments).</div>

## What Ifs

* **\*\*What if I want to include products in a category as well as in sub-categories?\*\*<br>** You can assign products to a category directly, and they will show up in that category. Products do not need to be in the last subcategory of the category tree to show up.
* **\*\*What if a certain product is assigned to a category, and that category is assigned to a user, but the user doesn’t have that certain product assigned to them?\*\*<br>** If a user has access to a category, but not some or all of the products in that category, the products that they don’t have access to will not show up.

## Conclusion

You have now created a sub-category, placed a product in the sub-category, and assigned the sub-category to the proper party.