roduct is in a pre-release state and might change or have limited support. For more information, see the product laun
. (/products/#product-launch-stages).

This page provides best practices for creating your catalog information and populating your catalog
data.

The catalog data you import into Recommendations AI has a direct effect on the quality of the
resulting model, and therefore on the quality of the predictions Recommendations AI provides. In
general, the more accurate and specific catalog information you can provide, the higher quality your
model.

Your catalog should be kept up to date. You can upload catalog changes as often as needed; ideally,
every day for catalogs with a high rate of change. You can upload (patch) existing catalog items;
only the changed fields will be updated. There is no charge for uploading catalog information. For
more information, see Keeping your catalog up to date
 (/recommendations-ai/docs/upload-catalog#current).

Currently, there is only one catalog per Google Cloud project. It is named "default_catalog". You do not need to create
t catalog; it is there by default.

The catalog is a collection of catalog item objects. Use the information below to decide what
information you will provide when you upload your catalog information.

To see a complete list of all catalog item fields, see the catalog item reference page
 (/recommendations-ai/docs/reference/rest/v1beta1/projects.locations.catalogs.catalogItems/).

The following catalog item fields are required; you must provide values for them when you create catalog items. They should also correspond with the values used in your internal product database, and should accurately reflect the product represented, because they are included in training your models.

Field	Notes
`id`	The product id used by your product database. The id field must be unique across your entire catalog. The same value is used when you record a user event, and is also returned by the `predict` method.
`categoryHierarchies[]`	A list of category hierarchies the catalog item belongs to. Categories should be taken from your company's product classification, and should accurately describe the product.
	You must provide at least one category; multiple categories are also accepted.
	Subcategories are grouped together in curly brackets. For example, suppose a footwear product belongs to both `"Shoes & Accessories" -> "Shoes"` and `"Athletic Clothing" -> "Shoes"]`. Its categoryHierarchies field would be:
`title`	Catalog item title from your product database. A UTF-8 encoded string. Limited to 1250 characters.
`description`	Catalog item description from your product database. A UTF-8 encoded string. Limited to 1250 characters.
`languageCode`	Language used for string fields for this item. Use language tags defined by BCP 47 (http://www.rfc-editor.org/rfc/bcp/bcp47.txt).
`productMetadata`	An object with information about your catalog item. Some `productMetadata` fields are optional, but the fields below are required.
`productMetadata.canonicalProductUri`	URL of the detail page for this catalog item.
`productMetadata.price`	The price field must contain one of two values: `ExactPrice` or `PriceRange`. This information is used to compute model metrics; if `PriceRange` is specified, the low end of the range is used.
`productMetadata.currencyCode`	The three-character numeric ISO-4217 (https://www.iso.org/iso-4217-currency-codes.html) code for the currency used in the price and cost fields of this catalog item.

These fields are not required. However, all catalog information you provide can be used to improve the quality of the model, prediction results, or prediction metrics. Be sure to provide as many fields as possible.

Field	Notes	Used for
`tags`	The `tags` field enables you to filter your prediction results. Tag values must consist only of alphanumeric characters, underscores, and dashes. Updates to tag values can take up to 24 hours before they can be used to filter prediction results.	Recommendation filtering (/recommendations-ai/docs/predict/#filters)
`productMetadata.costs`	When you provide costs for a catalog item, it increases the accuracy of the prediction metrics, because any costs you provide are subtracted from the price. You can provide any number of costs; each cost is represented as a string and a value. The strings are for your reference only; they can be whatever value makes sense for your data. For example:	Recommendation metrics
`productMetadata.stockState`	You can use this field to provide stock information about this catalog item. The possible values are: • `IN_STOCK` • `OUT_OF_STOCK` • `PREORDER` • `BACKORDER` The default value is `IN_STOCK`.	Model quality
`productMetadata.availableQuantity`	How many of this item are available. A value of zero does not change the `stockState` field to `OUT_OF_STOCK`, nor does it prevent Recommendations AI from recommending this item.	Not currently used, could be used for model quality.
`productMetadata.images`	Images for this catalog item.	Model quality
`itemAttributes`	A place to provide information about your catalog item that is not included in other fields, and that you believe could help improve model quality.	Model quality

itemGroupId	ID for master item for this variant. Must be enabled by Recommendations AI.	SKU grouping (#item-group-id)

If your catalog has both master and variant items (also called parent and child items), usually you can use choose either the masters or the variants for both the data you upload to Recommendations AI and your predictions.

However, if you need to upload data using variants, but receive only parent items in your predictions, you can use variant grouping.

ng: Variant grouping must be enabled by your Recommendations AI representative *before* you upload any catalog d any user events.

Here are the options for catalogs with variants:

- Import master items to your Recommendations AI catalog and record user events for the master items.

  Recommendations AI returns master item IDs for predictions.

- Import variants to your Recommendations AI catalog and record user events for the variants.

  Recommendations AI returns variant item IDs for predictions.

- Use variant grouping: import variants to your Recommendations AI catalog, linked to the master item using the `itemGroupId` field. Record user events for the variants.

  Recommendations AI returns master item IDs, determined by the linking in the `itemGroupId` field, for predictions.

  You must include the `itemGroupId` field information when you first import your catalog data; it cannot be added later.