

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

This page describes how to request recommendations for a specific user and user event.

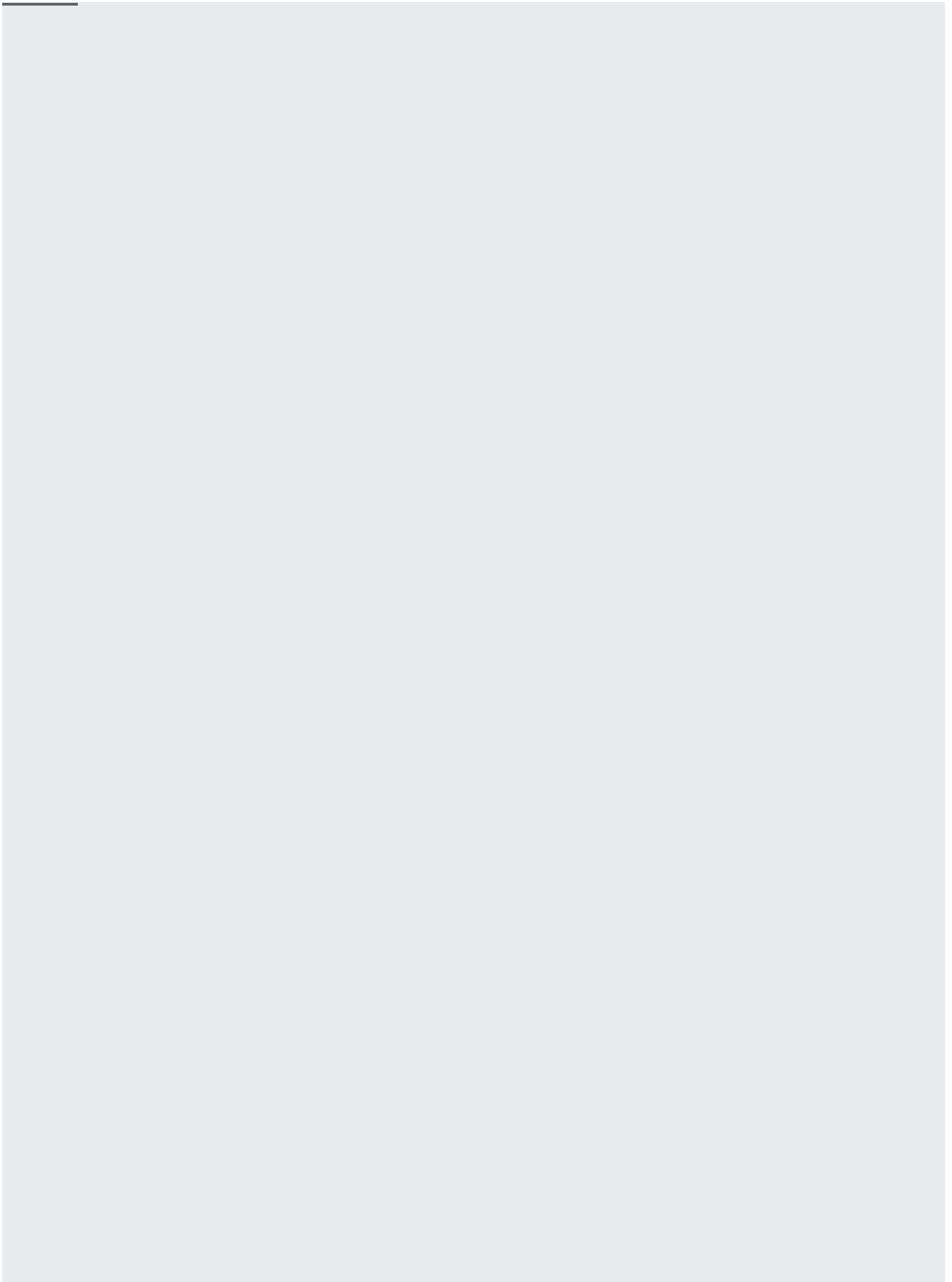
After you have uploaded your catalog items and recorded user events, you can request product recommendations for specific users based on the recorded user events for that user and their current activity.

Recommendations AI returns a list of ranked catalog item identifiers. You are responsible for rendering the results or displaying them with images and text.

Before you can access the Recommendations AI API, you must create a Google Cloud project and set up authentication using the steps in [Before you begin](#) (</recommendations-ai/docs/setting-up>).

In particular, if you plan to use API keys for authenticating requests for recommendations, you must [register the key](#) (</recommendations-ai/docs/setting-up#register-key>).

In addition, before you can request predictions from Recommendations AI, you need a [trained and tuned recommendation \(model\)](#) (</recommendations-ai/docs/placements#new-model>) and one or more [active placements](#) (</recommendations-ai/docs/placements#placements>).



You can filter the recommendations returned by Recommendations AI by using the `filter` field in the `predict` method.

The `filter` field accepts two forms of filter specification:

- Tag expressions

If you added `tag` values to your catalog items when you uploaded them, you can specify that only items that match all of the tags you filter on are returned as recommendations. [Learn more \(/recommendations-ai/docs/catalog#optional-fields\)](#).

Tag expressions can contain the boolean operators `OR` or `NOT`, which must be separated from the tag values by one or more spaces. Tag values can also be immediately prepended by a dash (`-`), which is equivalent to the `NOT` operator. Tag expressions that use the boolean operators must be enclosed in parentheses.

★ **Note:** Tag expression updates can take up to 24 hours to become available for use in filtering predictions.

- `filterOutOfStockItems`

The `filterOutOfStockItems` flag filters out any catalog items with a `stockState` of `OUT_OF_STOCK`.

You can combine these two types of filters; only items that satisfy all specified filter expressions are returned.

Some example filter strings:

The following example returns only items that are in stock that have either the "spring-sale" or the "exclusive" tag (or both) and also does not have the "items-to-exclude" tag.

