

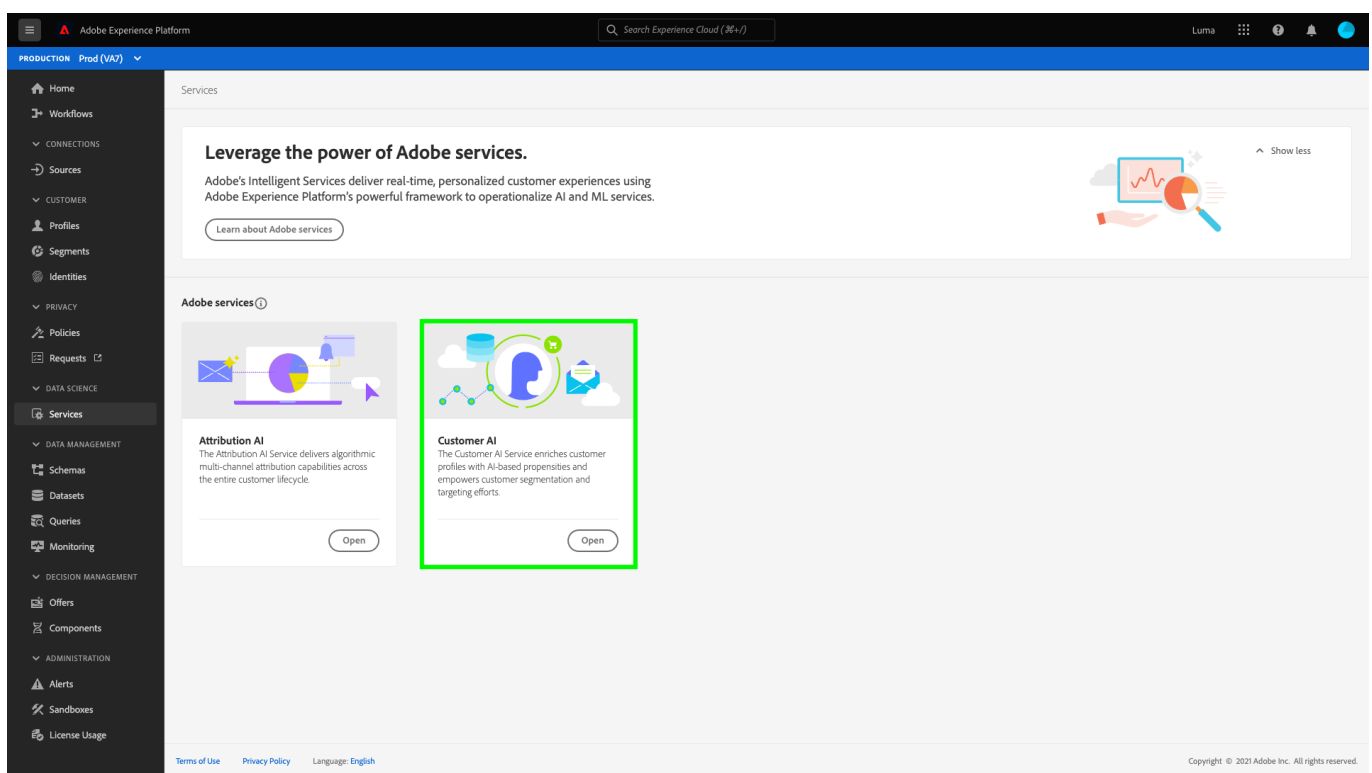
Configure a Customer AI instance

Customer AI, as part of AI/ML Services enables you to generate custom propensity scores without having to worry about machine learning.

AI/ML Services provide Customer AI as a simple-to-use Adobe Sensei service that can be configured for different use cases. The following sections provide steps for configuring an instance of Customer AI.

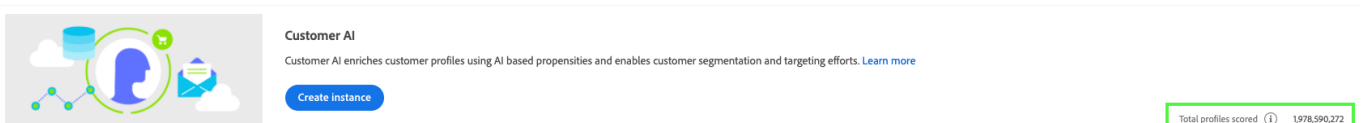
Create an instance {#set-up-your-instance}

In the Platform UI, select **[!UICONTROL Services]** in the left navigation. The **[!UICONTROL Services]** browser appears and displays all available services at your disposal. In the container for Customer AI, select **[!UICONTROL Open]**.



The **Customer AI** UI appears and displays all your service instances.

- You can find the **[!UICONTROL Total profiles scored]** metric located in the bottom-right side of the **[!UICONTROL Create instance]** container. This metric tracks the total number of profiles scored by Customer AI for the current calendar year including all sandbox environments and any deleted service instances.



Service instances can be edited, cloned, and deleted by using the controls on the right-hand side of the UI. To display these controls, select an instance from your existing **[!UICONTROL Service instances]**. The controls contain the following:

- **[!UICONTROL Edit]**: Selecting **[!UICONTROL Edit]** allows you to modify an existing service instance. You can edit the name, description, and scoring frequency of the instance.
- **[!UICONTROL Clone]**: Selecting **[!UICONTROL Clone]** copies the currently selected service instance setup. You can then modify the workflow to make minor tweaks and rename it as a new instance.
- **[!UICONTROL Delete]**: You can delete a service instance including any historical runs. The corresponding output dataset will be deleted from Platform. However, scores that were synced to Real-Time Customer Profile are not deleted.
- **[!UICONTROL Data source]**: A link to the dataset used by this instance. If multiple datasets are being used, selecting the hyperlink text opens the dataset preview popover.
- **[!UICONTROL Last run details]**: This is only displayed when a run fails. Information on why the run failed, such as error codes are displayed here.
- **[!UICONTROL Score definition]**: A quick overview of the goal you configured for this instance.

The screenshot shows the Adobe Experience Platform interface. On the left is a navigation sidebar with categories like Home, Workflows, CONNECTIONS, Sources, CUSTOMER, Profiles, Segments, Identities, PRIVACY, Policies, Requests, DATA SCIENCE, and Services. The main content area is titled 'Services > Customer AI'. It features a 'Customer AI' card with a 'Create instance' button and a 'Total profiles scored' of 63,534,984. Below this is a table of 'Service instances' with columns: NAME, PROPENSITY TYPE, SCORING FREQUENCY, STATUS, LAST RUN, and LAST RUN STATUS. The table lists several instances, including 'Custom events multiple Luma datasets' which is highlighted. A popover menu is open for this instance, showing options to Edit, Clone, or Delete, and details about the instance's description, propensity type, identity, run frequency, data source, status, and last run status.

NAME	PROPENSITY TYPE	SCORING FREQUENCY	STATUS	LAST RUN	LAST RUN STATUS
Luma baseline instance	Churn	Weekly on Sun at 3:45 PM PST	Enabled	No runs found	Awaiting training
Luma purchase instance	Churn	Weekly on Thur at 1:12 PM PST	Enabled	11/11/2021, 1:13 PM PST	Success
Custom events multiple Luma datasets	Conversion	Weekly on Thur at 11:11 AM PST	Enabled	11/11/2021, 11:11 AM PST	Success
Luma will occur active instance	Conversion	Weekly on Tue at 1:04 PM PST	Enabled	10/31/2021, 5:09 PM PDT	Failed
Luma purchase will not occur	Conversion	Weekly on Tue at 12:48 PM PST	Enabled	11/9/2021, 12:50 PM PST	Success
Luma return customers purchase	Conversion	Monthly on 19th at 11:40 AM PST	Enabled	10/21/2021, 12:05 PM PDT	Success

To create a new instance, select **[!UICONTROL Create instance]**.

The screenshot shows the 'Create instance' button for the 'Customer AI' service. The button is green and labeled 'Create instance'. Above it is the 'Customer AI' card with a description and a 'Learn more' link. To the right, it shows 'Total profiles scored' as 1,978,590,272.

Set up

The instance creation workflow appears, starting on the **[!UICONTROL Set up]** step.

Below is important information on values that you must provide the instance with:

- **[!UICONTROL Name]**: The instance's name is used in all places where Customer AI scores are displayed. Hence, names should describe what the prediction scores represent. For example, "Likelihood to cancel magazine subscription".

- **[!UICONTROL Description]:** A description indicating what you are trying to predict.
- **[!UICONTROL Propensity type]:** The propensity type determines the intent of the score and metric polarity. You can either choose **[!UICONTROL Churn]** or **[!UICONTROL Conversion]**. Please see the note under [scoring summary](#) in the discovering insights document for more information on how the propensity type affects your instance.

Services > Customer AI > Create

Set up
Select data
Define goal
Set options

●
○
○
○

Basic information

Name* ⓘ

Luma propensity to buy

Description

Enter a description about what you are trying to predict

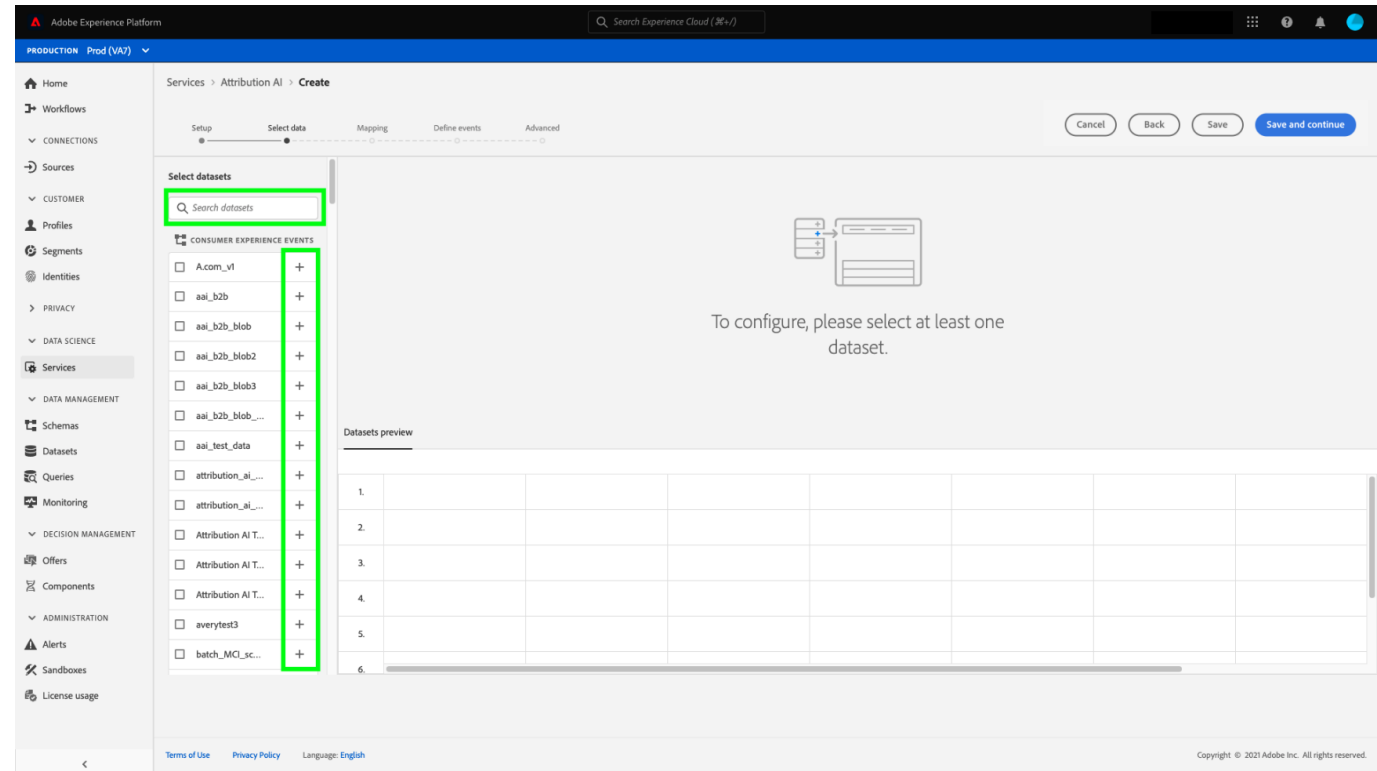
Propensity type* ⓘ

Conversion

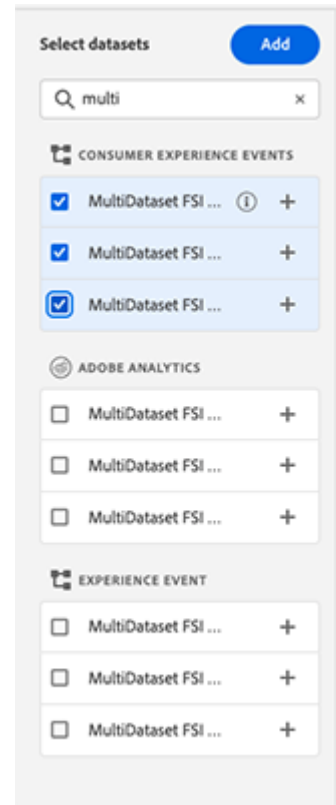
Provide the required values and then select **[!UICONTROL Next]** to continue.


Select data {#select-data}

By design, Customer AI uses Adobe Analytics, Adobe Audience Manager, Experience Events in general, and Consumer Experience Event data to calculate propensity scores. When selecting a dataset, only ones that are compatible with Customer AI are listed. To select a dataset, select the (+) symbol next to the dataset name or select the checkbox to add multiple datasets at once. Use the search option to quickly find the datasets you're interested in.

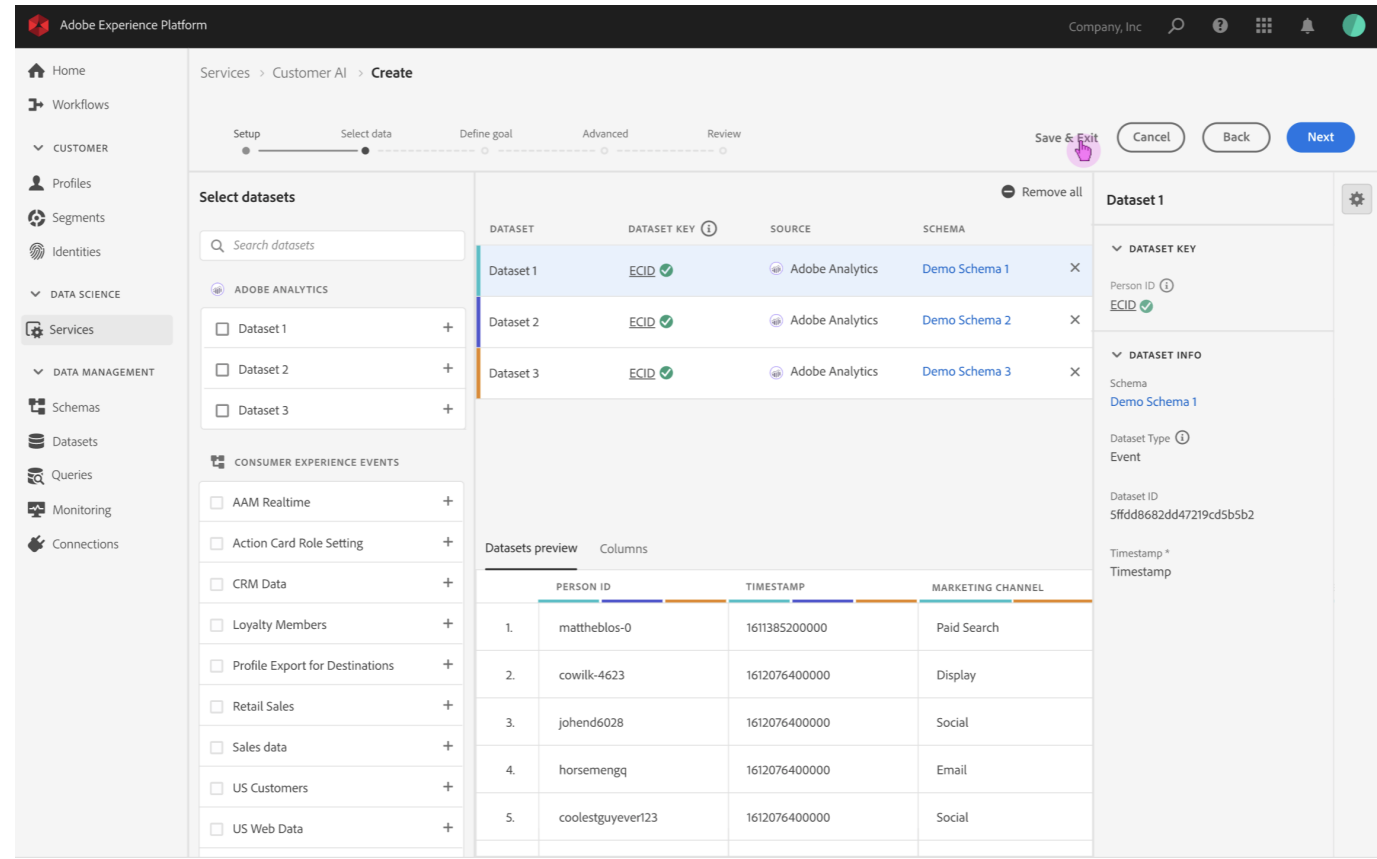


After selecting the datasets you wish to use, select the **[!UICONTROL Add]** button to add the datasets to the dataset preview pane.



Selecting the info icon  next to the dataset opens the dataset preview popover.

Select **[!UICONTROL Save]** to save your drafts as you move along the workflow. You can also save draft model configurations and move to the next step in the workflow. Use **[!UICONTROL Save and continue]** to create and save drafts during model configurations. The feature enables you to create and save drafts of the model configuration and is particularly useful when you have to define many fields in the configuration workflow.



Dataset completeness {#dataset-completeness}

There is a dataset completeness percentage value in the dataset preview. This value provides a quick snapshot of how many columns in your dataset are empty/null. If a dataset contains a lot of missing values and these values are captured elsewhere, it is highly recommended you include the dataset containing the missing values. In this example Person ID is empty, however, Person ID is captured in a separate dataset that can be included.

[!NOTE]

Dataset completeness is calculated using the maximum training window for Customer AI (one year). This means data that is more than one year old is not taken into account when displaying your dataset completeness value.

Dataset preview: MultiDataset FSI Data Midvalues EE with mixins Part3 202108 First 10 rows and 10 columns

Source Experience Event

Schema [multiDatasetEEMixin](#)

Total rows (last 365 days) 5,988,395

Dataset completeness 55.35 % ⓘ

Last update 11/10/2021, 3:31 AM PST

Last batch status ● Success

Row preview (all time)

	PERSON ID	TIMESTAMP	CHANNEL.MEDIAACTION ⓘ	CODE ⓘ
1.	6668235602265880031355...	1636329603000	click	AAID
2.	6668235602265880031355...	1636329646000	click	AAID
3.	57581373141209910260608...	1636329668000	click	AAID
4.	89299666663861314714487...	1636329668000	click	AAID
5.	697293045816316376905118...	1636329669000	click	AAID

[View dataset](#)

Select an identity {#identity}

You can now join multiple datasets to one another based on the identity map (field). You must select an identity type (also known as an "identity namespace") and an identity value within that namespace. If you have assigned more than one field as an identity within your schema under the same namespace, all the assigned identity values appear in the identity dropdown prepended by the namespace such as **EMAIL** (*personalEmail.address*) or **EMAIL** (*workEmail.address*).

[select same namespace](#)

[!IMPORTANT]

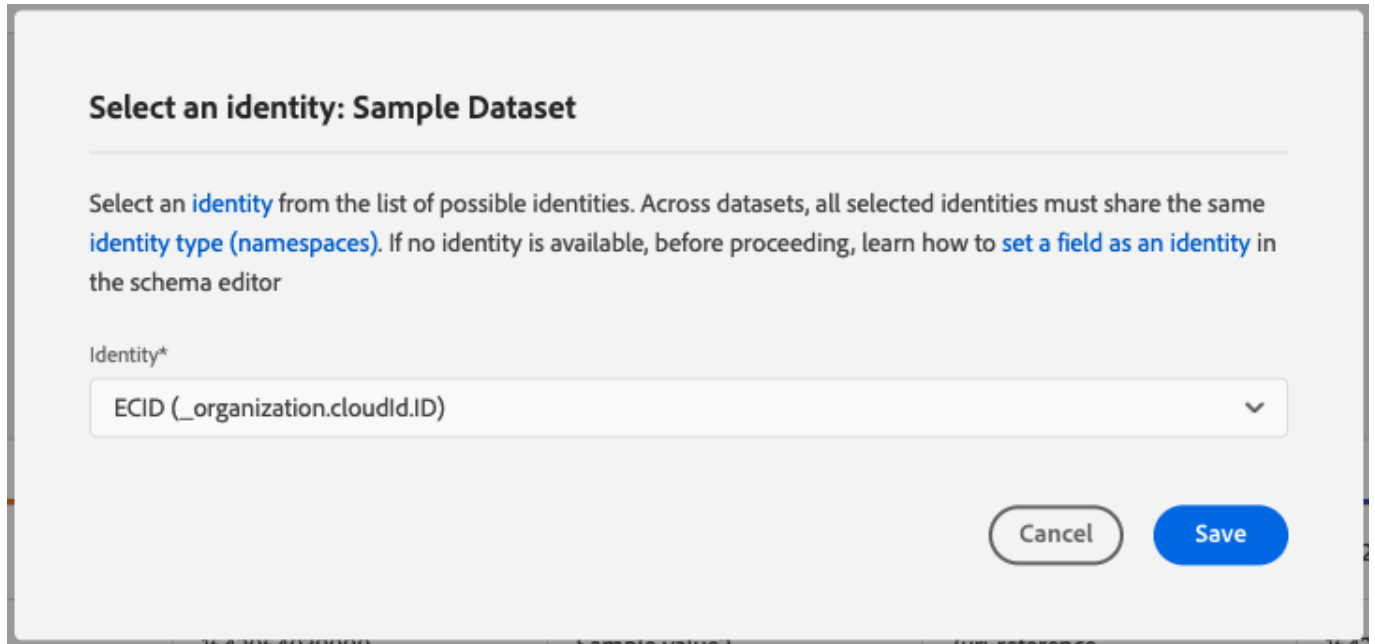
The same identity type (namespace) must be used for every dataset you select. A green checkmark appears next to the identity type within the identity column indicating datasets are compatible. For example, when using the Phone namespace and **mobilePhone.number** as the identifier, all identifiers for the remaining datasets must contain and use the Phone namespace.

To select an identity, select the underlined value located in the identity column. The select an identity popover appears.

[select same namespace](#)

In the event that more than one identity is available within a namespace, make sure to select the correct identity field for your use case. For example, two email identities are available within the email namespace, a

work and personal email. Depending on the use case, a personal email is more likely to be filled in and be more useful in individual predictions. This means that `EMAIL (personalEmail.address)` would be selected as the identity.



Select an identity: Sample Dataset

Select an **identity** from the list of possible identities. Across datasets, all selected identities must share the same **identity type (namespace)**. If no identity is available, before proceeding, learn how to **set a field as an identity** in the schema editor

Identity*

ECID (_organization.cloudId.ID) ▼

Cancel Save

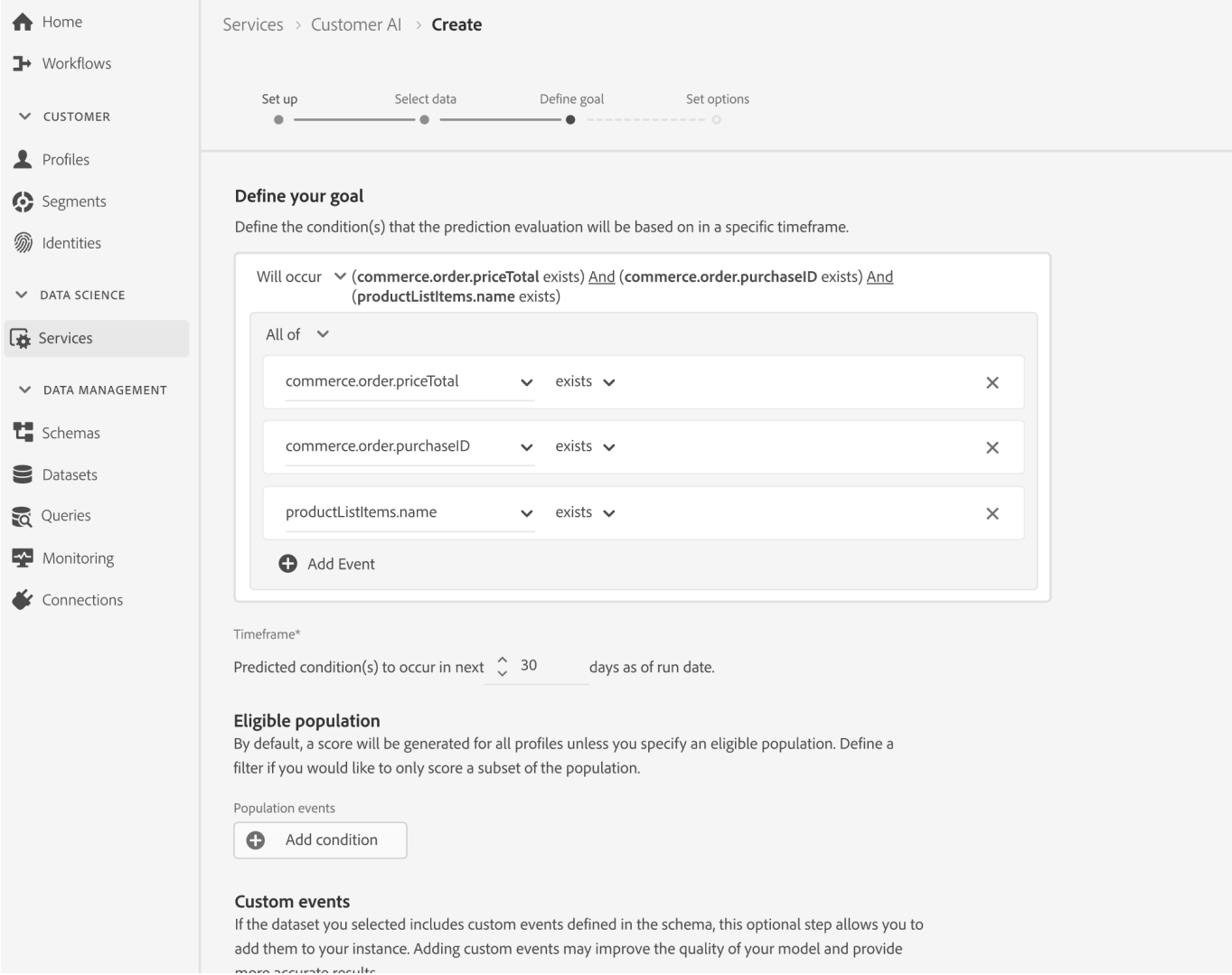
[!NOTE]

If no valid identity type (namespace) exists for a dataset, you must set a primary identity and assign it to an identity namespace using the [schema editor](#). To learn more about namespaces and identities, visit the [Identity Service namespaces](#) documentation.

Define goal {#define-a-goal}

The **[!UICONTROL Define goal]** step appears and it provides an interactive environment for you to visually define a prediction goal. A goal is composed of one or more events, where each event's occurrence is based on the condition it holds. The objective of a Customer AI instance is to determine the likeliness of achieving its goal within a given time frame.

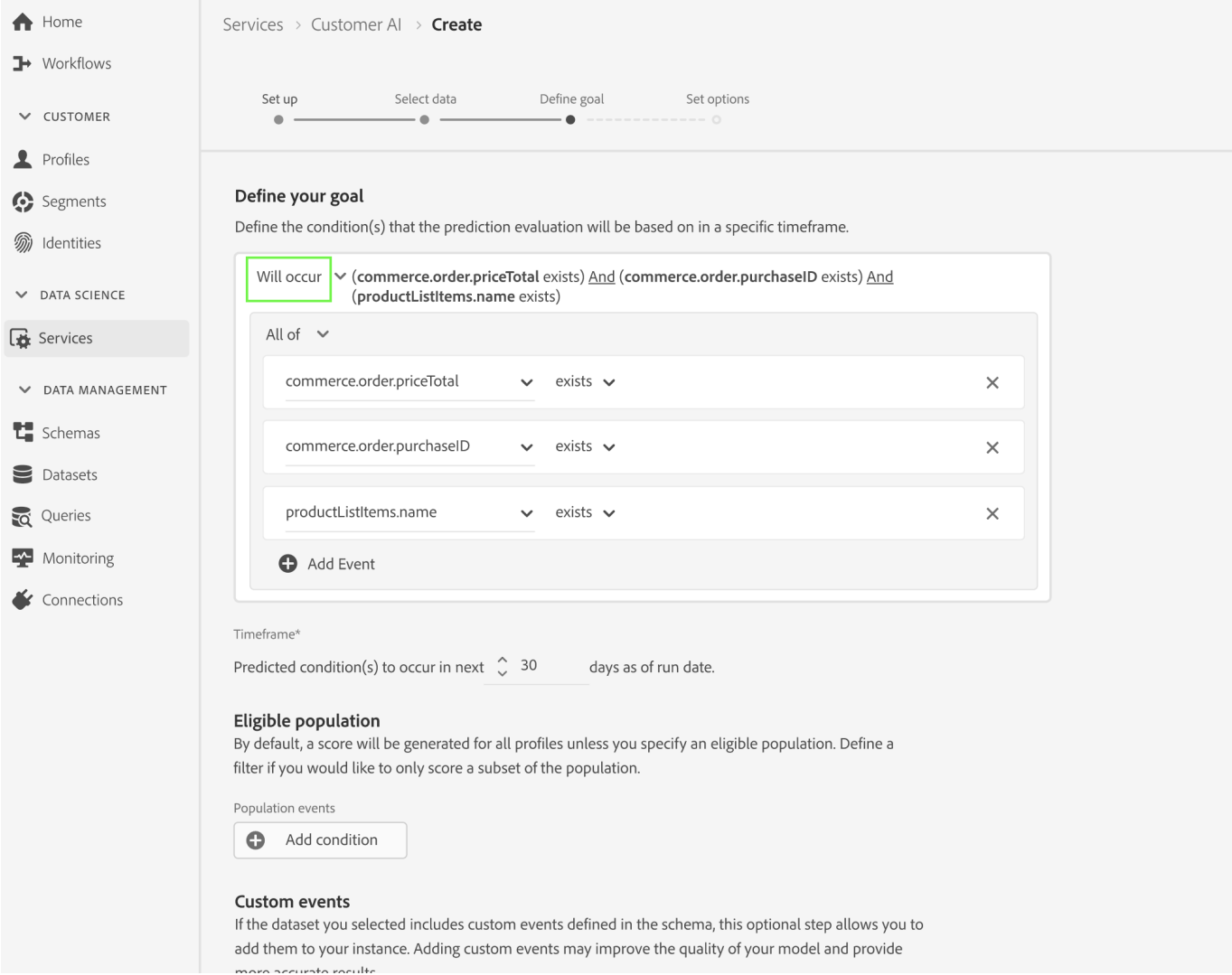
To create a goal, select **[!UICONTROL Enter Field Name]** and followed by a field from the dropdown list. Select the second input, a clause for the event's condition, then optionally provide the target value to complete the event. Additional events can be configured by selecting **[!UICONTROL Add event]**. Lastly, complete the goal by applying a prediction time frame in number of days, then select **[!UICONTROL Next]**.



Will occur and will not occur

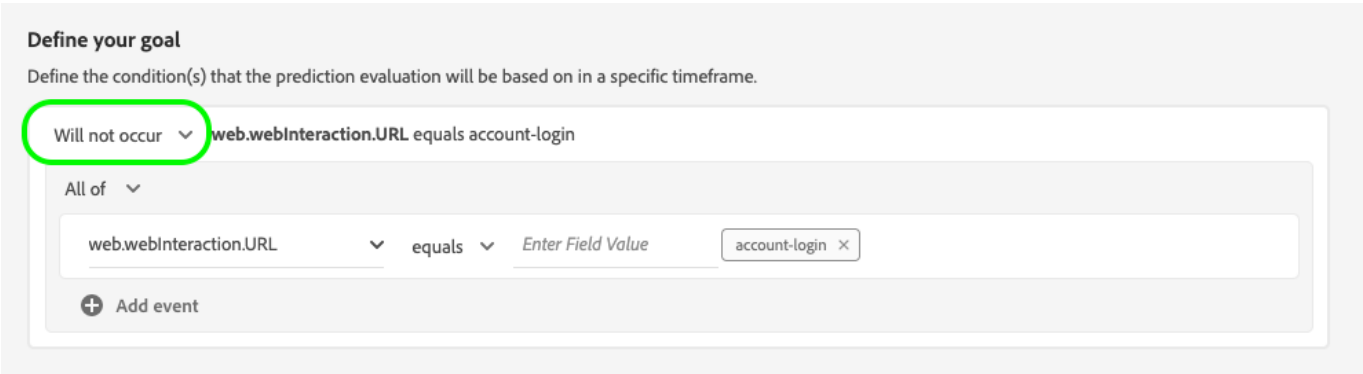
While defining your goal, you have the option to select **[!UICONTROL Will occur]** or **[!UICONTROL Will not occur]**. Selecting **[!UICONTROL Will occur]** means that the event conditions you define need to be met for a customer's event data to be included in the insights UI.

For example, if you would like to set up an app to predict whether a customer will make a purchase, you can select **[!UICONTROL Will occur]** followed by **[!UICONTROL All of]** and then enter **commerce.purchases.id** (or a similar field) and **[!UICONTROL exists]** as the operator.



However, there may be cases when you are interested in predicting whether some event will not happen in a certain timeframe. To configure a goal with this option, select **[!UICONTROL Will not occur]** from the top-level dropdown.

For example, if you are interested in predicting which customers become less engaged and do not visit your account login page in the next month. Select **[!UICONTROL Will not occur]** followed by **[!UICONTROL All of]** and then enter **web.webInteraction.URL** (or a similar field) and **[!UICONTROL equals]** as the operator with **account-login** as the value.



All of and any of

In some cases, you may want to predict whether a combination of events will occur and in other cases, you may want to predict the occurrence of any event from a pre-defined set. In order to predict whether a customer will have a combination of events, select the **[!UICONTROL All of]** option from the second-level drop-down on the **[!UICONTROL Define Goal]** page.

For example, you may want to predict whether a customer purchases a particular product. This prediction goal is defined by two conditions: a `commerce.order.purchaseID` **exists** and the `productListItems.SKU` **equals** some specific value.

Define your goal

Define the condition(s) that the prediction evaluation will be based on in a specific timeframe.

Will occur

(commerce.order.purchaseID exists) And (productListItems.SKU exists)

All of

commerce.order.purchaseID exists

productListItems.SKU exists

+ Add event

In order to predict whether a customer will have any event from a given set, you can use the **[!UICONTROL Any of]** option.

For example, you may want to predict whether a customer visits a certain URL or a web page with a particular name. This prediction goal is defined by two conditions: `web.webPageDetails.URL` **starts with** a particular value and `web.webPageDetails.name` **starts with** a particular value.

Define your goal

Define the condition(s) that the prediction evaluation will be based on in a specific timeframe.

Will occur

(web.webPageDetails.URL starts with https://) Or (web.webPageDetails.name starts with Some name)

Any of

web.webPageDetails.URL starts with https://

web.webPageDetails.name starts with Some name

+ Add event

Eligible population (optional)

By default, propensity scores are generated for all profiles unless an eligible population is specified. You can specify an eligible population by defining conditions to include or exclude profiles based on events.

Eligible population

By default, a score will be generated for all profiles unless you specify an eligible population. Define a filter if you would like to only score a subset of the population.

Population events

Include ▼ endUserIDs._experience.adcloud.authenticatedState exists in last 30 Days ...

endUserIDs._experience.adclou... ▼ exists ▼

In last ▼ 30 Days ▼

+ Add event

+ Add condition

Custom events (optional) {#custom-events}

If you have additional information in addition to the [standard event fields](#) used by Customer AI to generate propensity scores, a custom events option is provided. Using this option allows you add additional events that you deem influential which may improve the quality of your model and help to provide more accurate results. If the dataset you selected includes custom events defined in your schema, you can add them to your instance.

[!NOTE]

For an in depth explanation on how custom events effect Customer AI scoring results, visit the [Custom event example](#) section.

Custom events

If the dataset you selected includes custom events defined in the schema, this optional step allows you to add them to your instance. Adding custom events may improve the quality of your model and provide more accurate results.

Custom event name ...

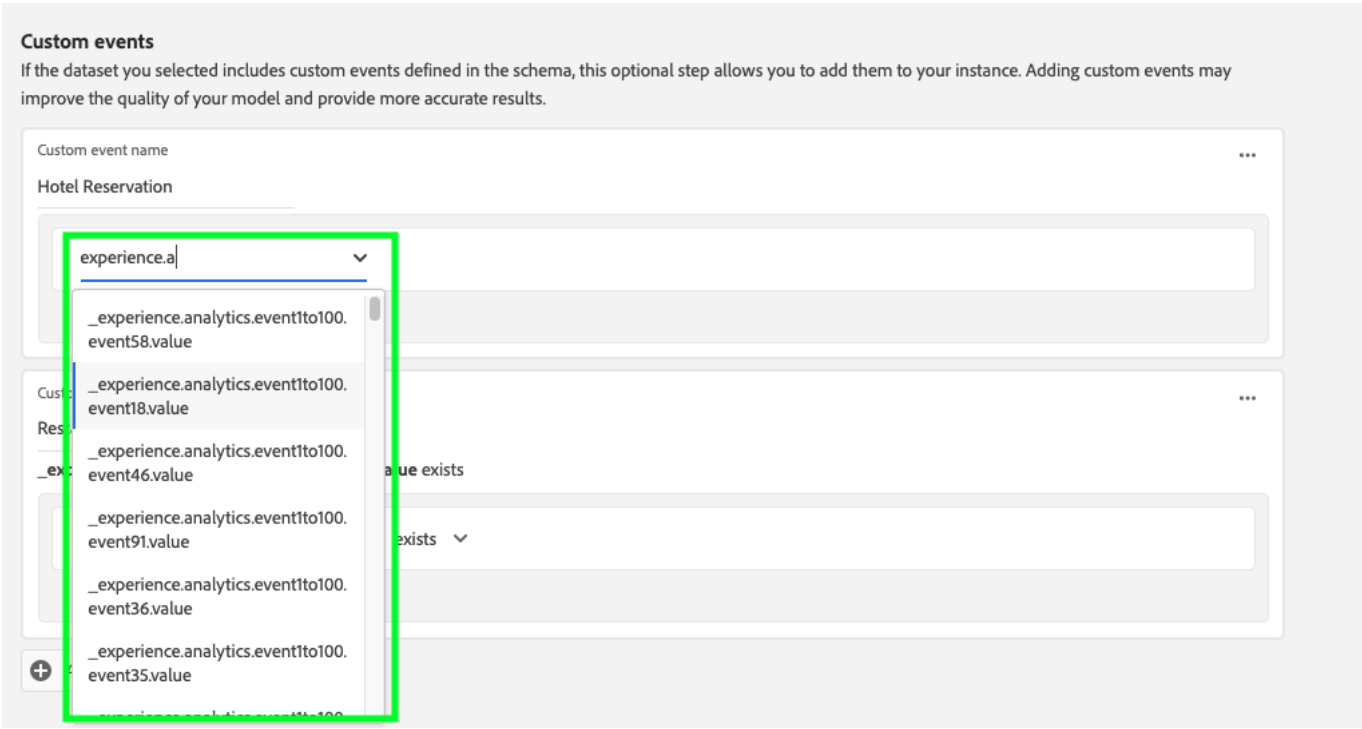
Enter custom event name

Enter field name ▼

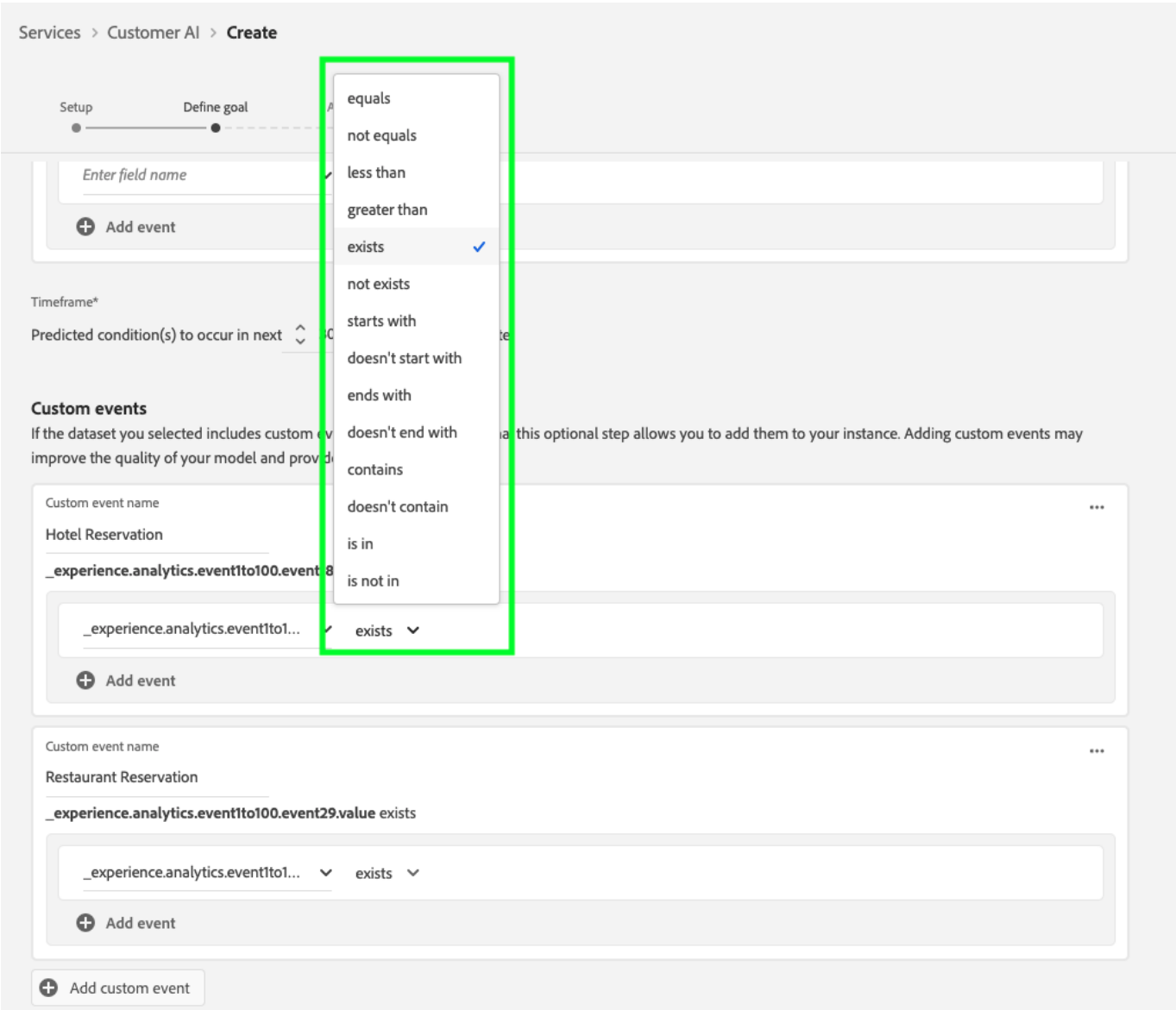
+ Add event

+ Add custom event

To add a custom event, select **[!UICONTROL Add custom event]**. Next, input a custom event name then map it to the event field in your schema. Custom event names are displayed in place of the fields value when looking at influential factors and other insights. This means that the custom event name will be used instead of the ID/value of the event. For more information on how custom events are displayed, see the [custom event example section](#). These additional custom events are used by Customer AI to improve the quality of your model and provide more accurate results.



Next, select the operator you wish to use from the available operators drop-down. Only operators compatible with the event are listed.



Lastly, enter the field value(s) if the operator selected requires one. In this example, we only need to see if a hotel or restaurant reservation exists. However, if we wanted to be more exact we could use the equals operator and enter an exact value in the value prompt.

Custom events
If the dataset you selected includes custom events defined in the schema, this optional step allows you to add them to your instance. Adding custom events may improve the quality of your model and provide more accurate results.

Custom event name
Hotel Reservation
_experience.analytics.event1to100.event18.value exists

_experience.analytics.event1to100.event18.value exists

+ Add event

Custom event name
Restaurant Reservation
_experience.analytics.event1to100.event20.value equals

_experience.analytics.event1to100.event20.value equals

+ Add event

+ Add custom event

Once complete, select **[!UICONTROL Next]** in the top-right to continue.

Custom profile attributes *(optional)*

You can define important Profile dataset fields (with timestamps) in your data in addition to the [standard event fields](#) used by Customer AI to generate propensity scores. Using this option allows you to add additional profile attributes that you deem influential which may improve the quality of your model and provide more accurate results. Additionally, adding custom profile attributes allows Customer AI to better showcase how particular profiles ended up in a propensity bucket.

[!NOTE]

Adding a custom Profile attribute follows the same workflow as adding a custom event. Similar to custom events, custom profile attributes affect your model scoring in the same way. For an in-depth explanation, visit the [Custom event example](#) section.

Profile attributes
If the dataset you selected includes profile attributes defined in the schema, this optional step allows you to add them to your instance. Adding profile attributes may improve the quality of your model and provide more accurate results.

+ Add profile attri...

X

Select profile attributes from the Profile snapshot export

You can also choose to include profile attributes from the daily Profile snapshot export. These attributes are synced to the Profile snapshot export and display the most recently available value.

[!WARNING]

Be careful not to select a profile attribute that is updated as a result of the prediction goal or highly correlated with the prediction goal. This causes data leakage and over-fitting of the model. An example of such an attribute is `total_purchases_in_the_last_3_months` that predicts purchase conversion.

[!NOTE]

Support for using profile attributes from the UPS snapshot export is available in the UI upon request.

Adding a custom event example {#custom-event}

In the following example, a custom event and profile attribute is added to a Customer AI instance. The goal of the Customer AI instance is to predict the likelihood of a customer to buy another Luma product in the next 60 days. Normally, product data is linked to a product SKU. In this case, the SKU is `prd1013`. After the Customer AI model is trained/scored, this SKU can be linked to an event and displayed as an influential factor for a propensity bucket.

Customer AI automatically applies feature generation such as "Days since" or "Counts of" against custom events such as **Watch purchase**. If this event was considered an influential factor on why customers are high, medium, or low propensity, Customer AI displays it as `Days since prd1013 purchase` or `Count of prd1013 purchase`. By creating this as a Custom event, you can give the event a new name making the results much easier to read. For example, `Days since Watch purchase`. Additionally, Customer AI uses this event in its training and scoring even if the event is not a standard event. This means you can add multiple events that you think might be influential and customize your model further by including data such as reservations, visitor logs, and other events. Adding these data points further increases the accuracy and precision of your Customer AI model.

Custom events

If the dataset you selected includes custom events defined in the schema, this optional step allows you to add them to your instance. Adding custom events may improve the quality of your model and provide more accurate results.

Custom event name

Watch purchase

productListItems.SKU equals prd1013

productListItems.SKU

equals

Enter Field Value

prd1013

Add event

Add custom event

Profile attributes

If the dataset you selected includes profile attributes defined in the schema, this optional step allows you to add them to your instance. Adding profile attributes may improve the quality of your model and provide more accurate results.

Profile attribute name

Customer Primary ID

endUserIds_experience.mcid.p...

Add profile attri...

Days since Watch purchase

54% of high propensity profiles

108,439 profiles

Top values	%	Profiles
1 - 5	9%	18,356
6 - 11	7%	14,384
12 - 17	11%	22,357
18 - 23	8%	17,091
24 - 28	2%	5,465
29 - 34	1%	3,103
35 - 40	5%	10,656
41 - 46	7%	13,938
47 - 52	0%	1,525
53 or more	0%	1,564

Set options

The set options step allows you to configure a schedule to automate prediction runs, define prediction exclusions to filter certain events, and toggle **[!UICONTROL Profile]** on/off.

Configure a schedule (optional) {#configure-a-schedule}

To set up a scoring schedule, start by configuring the **[!UICONTROL Scoring Frequency]**. Automated prediction runs can be scheduled to run on either a weekly or a monthly basis.

Schedule
Define how often you want the results to be generated.

Scoring Frequency*

Weekly

▼

Sun

Mon

Tue

Wed

Thu

Fri

Sat

Time*

12:00 am

🕒

Prediction exclusions *(optional)*

If your dataset contained any columns added as test data, you can add that column or event to an exclusion list by selecting **[!UICONTROL Add Exclusion]** followed by entering the field you wish to exclude. This prevents events that meet certain conditions from being evaluated when generating scores. This feature can be used to filter out irrelevant data inputs or promotions.

To exclude an event, select **[!UICONTROL Add exclusion]** and define the event. To remove an exclusion, select the ellipses (**[!UICONTROL ...]**) to the top-right of the event container, then select **[!UICONTROL Remove Container]**.

Prediction exclusions
Define any events that you would like to exclude when evaluating the prediction.

Exclude productListItems.SKU not equals llmj11

...

productListItems.SKU

▼

not equals

▼

Enter Field Value

▼

llmj11

×

+

Add event

Profile toggle

The Profile toggle allows Customer AI to export the scoring results into Real-Time Customer Profile. Disabling this toggle prevents the models scoring results from being added to Profile. Customer AI scoring results are still available with this feature disabled.

When using Customer AI for the first time you can toggle this feature off until you are satisfied with the model output results. This prevents you from uploading multiple scoring datasets to your Customer Profiles while fine tuning your model. Once you have finished calibrating your model, you can clone the model using the [clone option](#) from the **Service instances** page. This allows you to create a copy of your model and toggle profile on.

Services > Customer AI > Create

SetupSelect DataDefine goalAdvanced

CancelBackSaveFinish

Schedule

Define how often you want the results to be generated.

Scoring frequency*

WeeklySunMonTueWedThurFriSat05:09 pmPDT

Time*

Prediction exclusions

Define any events that you would like to exclude when evaluating the prediction.

Exclude productListItems.SKU not equals llmjtl

productListItems.SKUnot equalsEnter Field Valuellmjtl

Add event

Profile

☐ Enable scores for Profile

Once you have your scoring schedule set, prediction exclusions included, and the profile toggle where you want it to be, select **[!UICONTROL Finish]** in the top-right to create your Customer AI instance.

If the instance is created successfully, a prediction run is immediately triggered and subsequent runs execute according to your defined schedule.

[!NOTE]

Depending on the size of the input data, prediction runs can take up to 24 hours to complete.

By following this section, you have configured an instance of Customer AI and executed a prediction run. Upon the run's successful completion, scored insights automatically populate profiles with predicted scores if the profile toggle is enabled. Please wait up to 24 hours before continuing to the next section of this tutorial.

Next steps {#next-steps}

By following this tutorial, you have successfully configured an instance of Customer AI and generated propensity scores. You can now choose to use the Segment builder to [create customer segments with predicted scores](#) or [discover insights with Customer AI](#).

Additional resources

The following video is designed to support your understanding of the configuration workflow for Customer AI. Additionally, best practices and use case examples are provided.

[!IMPORTANT]

The following video is out of date. For the most up-to-date information refer to the documentation.

[!VIDEO](#)