



Dynamics 365 Customer Insights

Lab 3 Segments, Customer Cards, Activities, Enrichment



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Module Introduction

Segmentation

Now you'll create marketing segments to promote Contoso Coffee's new Cold Brew Coffee offering as well as to identify customers with a higher-than-average online spend. Contoso wants to target these segments with their new subscription and connected coffee machine services. These segments will allow Contoso Coffee Marketing to deliver personalised, targeted marketing journeys for upcoming product launch.

Customer Search and Cards

You will use the Customers section of Customer Insights to review the unified customer profiles. After defining the fields to be indexed you will search for customers and will review the information shown about each unified customer profile.

Activities

Activities provide a way for you to see customer activities, such as purchases, in a timeline in the Unified Customer Card.

Data Enrichment

Enrich your customer profiles with brands and interest affinities with the help of data from Microsoft or any third-party application.

Objectives

- Generate Segments for use by Marketing
- Setup search and indexing for customers
- Configure Activities within Customer Insights
- Setup Data Enrichment

Prerequisites

To complete the Customer Insights lab, you will need to have completed Lab 2.

Approximate Time to Complete – 90 mins



Exercise 1 – Segmentation

Segments enable you to group your customers into cohorts based on demographic, transactional, or behavioural customer attributes. Using segmentation, you can achieve more targeted actions such as promotional campaigns, sales activities, or customer support actions to achieve desired business goals. You can define complex filters around the Customer Profile entity and its graph of related entities. Each segment, after processing, outputs a set of customer entity records that you can export and take actions upon.

Segments can be static (defined at the point you activate them) or Dynamic. If you create a Dynamic segment, customers will drop in and out of the segment as they meet or no longer meet the criteria you define.

Using Customer Insights, Segments can be exported to **Dynamics 365 Marketing** or several other business applications and used to execute a targeted Customer Journey. Segments can also be exported to .csv or accessed via API.

Customer Insights also provides insights over the created segments. Using **Segment insights**, you can find what differentiates two segments or what they have in common. **Segment overlap** shows which customers are common among the segments. **Segment differentiators** helps you find what differentiates a segment from the rest of your customers or the other segments. With these insights, you can compare the segments against attributes and measures.

In this lab you will segment your unified customer profiles, to create cohorts of customers with similar attributes. There are a few ways to create segments and they'll

- Build your own
- Create from Profiles
- Create from Measures
- Suggested Segments

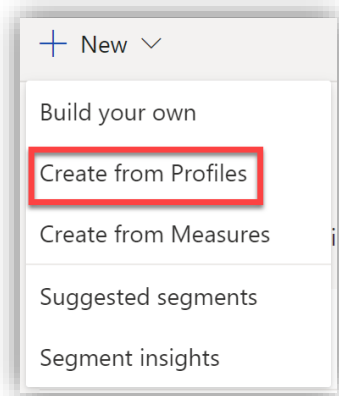
In this lab you'll create a segment from each of the methods and apply insights to them to discover additional information.



Task 1 – Segment From Profiles: Customers from California

Create a segment of **Customers from California** from profiles.

1. Click on **Segments** in the left menu
2. Click the **+New** dropdown and select **Create from Profiles**



3. Select the **Field -> State** and **Value -> California**
4. Click **Review**
5. Name your segment **Customers From California** and set the output entity name to **CustomersFromCalifornia**



New quick segment

Name your segment, review it, and save.

Name
Customers From California

Output entity name
CustomersFromCalifornia
Start with a letter. Use letters and numbers only.

Condition
State is California.

Estimated segment size
1187
customers

23.49%
of total

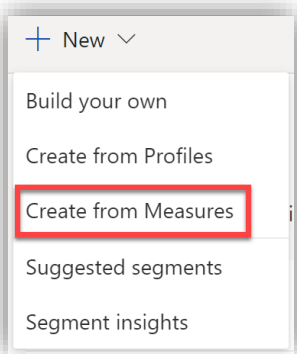
Back Save Cancel

6. Click **Save**

Task 2 – Segment From Measures: High Value Online Customers

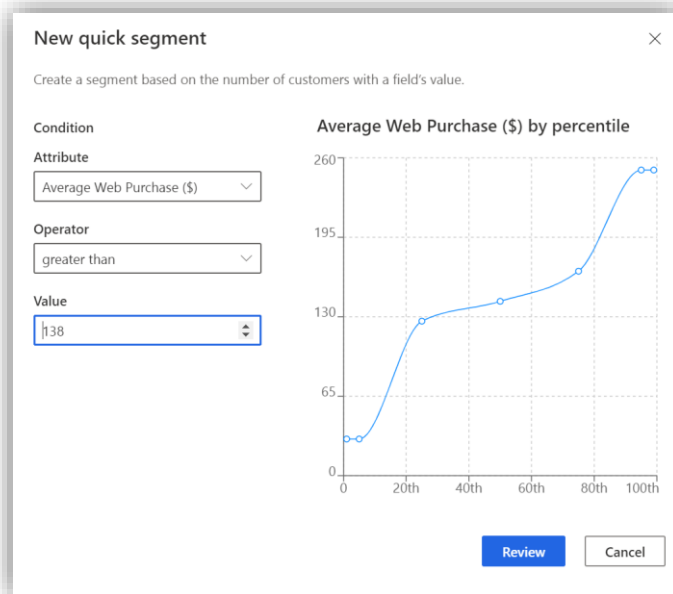
The Contoso Coffee Marketing team wants to run a new promotion to convert customers to a subscription model. The marketing team has identified that they wish to target customers with a higher-than-average online purchase value for their brew-at-home campaign.

1. Click on **Segments** in the left menu
2. Click the **+ New** dropdown and select **Create from Measures**

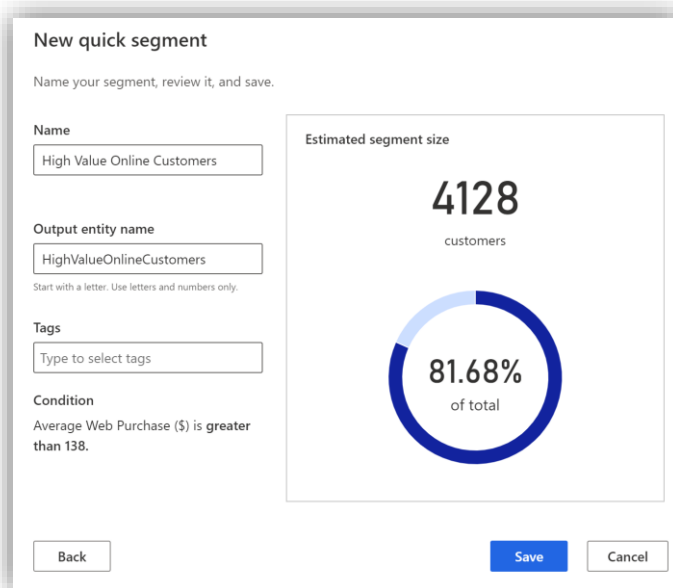


3. Select the **Average Web Purchase (\$)** attribute

4. Set the operator to **Greater Than**
5. Set the value to **138**. You should have a new quick segment screen that looks something like this (your graph may vary based on the data):



6. Click **Review**
7. Name your segment **High Value Online Customers** and set the output entity name to **HighValueOnlineCustomers**



8. Click **Save**



Task 3 – Segment From Blank: Summer Promo

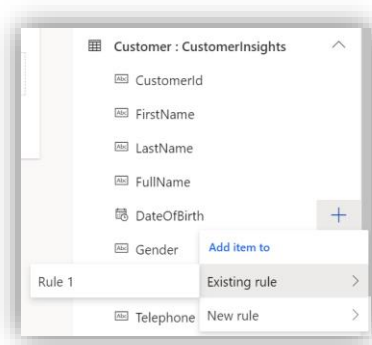
The Contoso Coffee Marketing team want to run a new Summer Promotion targeting millennials with a higher than average in-store purchase with their newly launched Cold Brew Coffee. Create this segment manually (build your own)

1. Click on **Segments** in the left menu and Click on **+ New** and select **Build your own**.
2. Click **Edit details**, Name to **Summer Promotion**, Output entity name to **SummerPromotion** and click **Done**

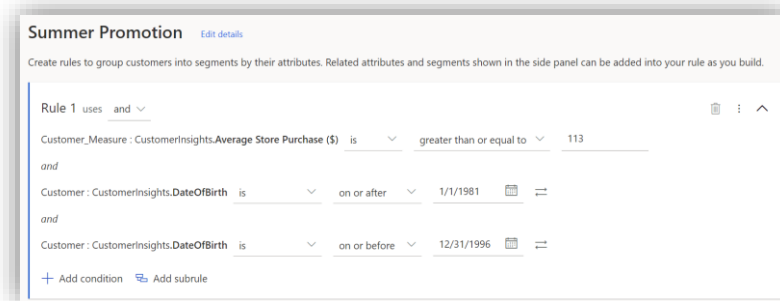
3. Enter an attribute name or add from side panel box, select **Customer_Measure : CustomerInsights → Average Store Purchase (\$)**
4. Set the fields to **is greater than or equal to** and **113**

Note: 113 is the average In-store purchase we calculated earlier.

5. In the right panel (**Add to Rule1**), select the **+** next to **Customer : CustomerInsights, DateOfBirth** then select **Add item to Existing Rule→Rule 1**



6. Set the condition to **is – on or after - 1/1/1981**
7. In the right panel (**Add to Rule1**), select the + next to **Customer : CustomerInsights**, **DateOfBirth** then select **Add item to Existing Rule→Rule 1**
8. Set the condition to **is – on or before to 12/31/1996**
Note: You may see extra blank conditions, simply trash them



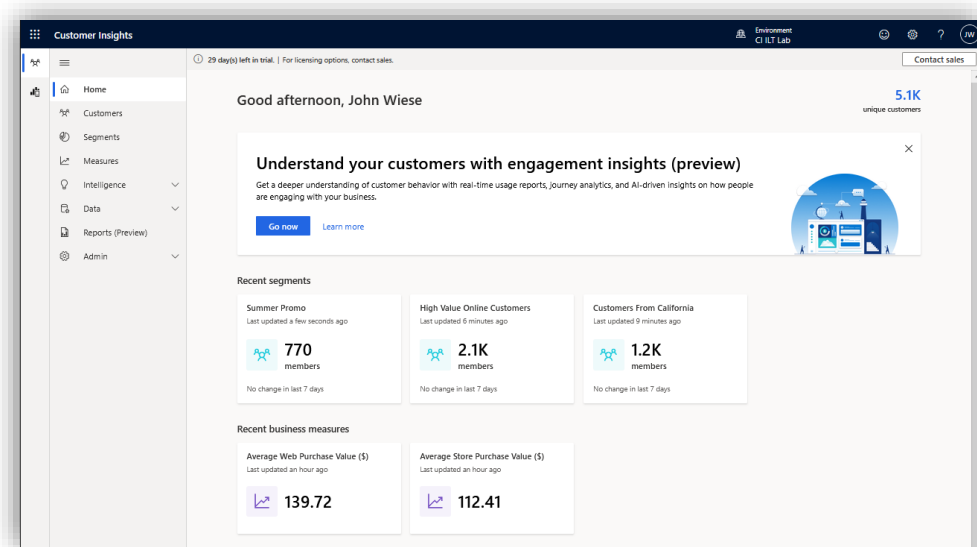
9. Click **Save** then click **Run**



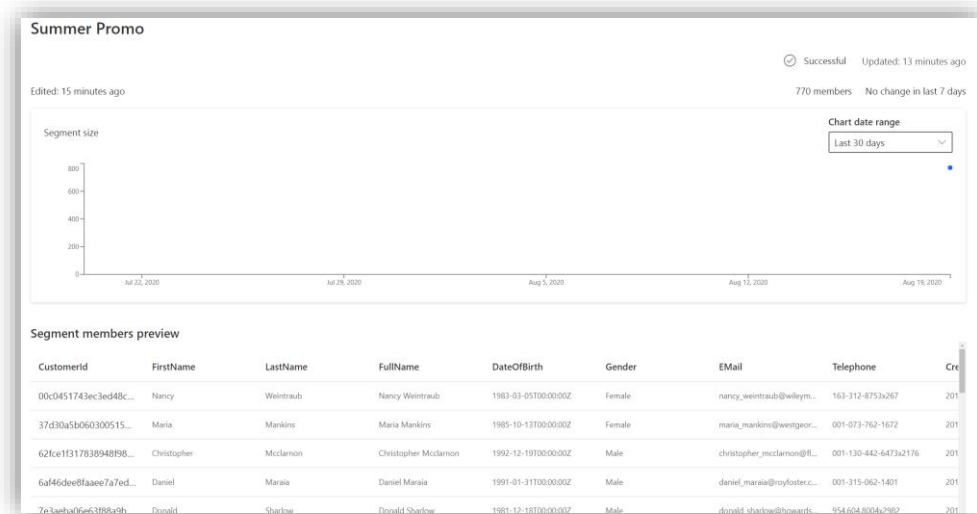
10. If you get a **Continue running?** pop-up, select **Continue** to make the Segment active

Task 4 – Review Segments

1. Wait for all of segments to successfully run then navigate to the Customer Insights Home Page. You should see your segments displayed. **Note:** Your numbers may be slightly different if the underlying data has changed since the creation of this document.



2. Click on one of your segments from the home page or navigate back to Segments and select one from there. You will see a preview of the customers included within your segment, as well a timeline highlighting the segment size. Increases and decreases in the number of segment members will appear on the graph as data changes over time and the segment is rerun.





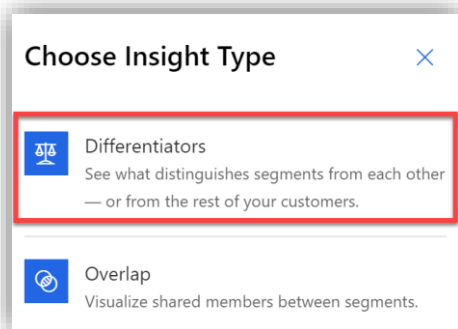
3. Now that you have created your segments you are ready to start acting upon your data. You can select the segment and click **Download** on the top for use in 3rd party software, or you can set up an Export Destination. Segments created within Customer Insights can be made available to other parts of the Power Platform, Dynamics 365 Marketing or external applications.

To do this you would go under **Admin -> Export Destinations** in the left side menu. Here you can setup and Export destination for **Dynamics 365 for Sales, Dynamics 365 Marketing, Azure Blob Storage** and several business applications or tools allowing you to use the segments to execute a Marketing Campaign. A later lab will walk you through this.

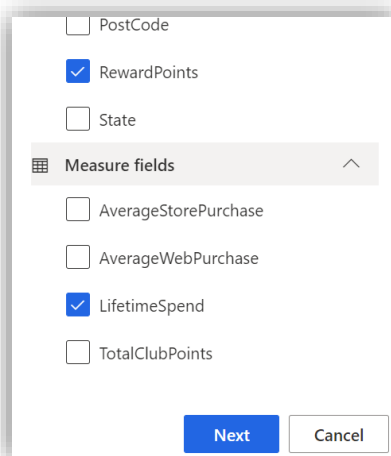
Task 5 – Apply Segment Insights

Let's try to find out common customers that belong to both **Customers from California** and **High Value Online Customers** segments and what differentiates both of these segments in terms of **Reward points** and **LifetimeSpend**.

1. Click on **Segments** in the left menu, click on **Insights** tab and click on **New** on the top.
2. You will now see two options as below:



3. Select **Differentiators** to see what distinguishes both segments.
4. Choose **High Value Online Customers** as primary segment and hit **Next** and choose **Customers from California** as another segment and hit **Next**.
5. Now choose **Customer fields: RewardPoints** and **Measures fields: LifetimeSpend** to see how the above segments differ from each other with respect to **Reward points** and **Lifetime Spend** (you can leave the other **Measure fields** selected if you'd like to see those as well)





6. Click **Next** and name your insight **High Value Online vs Customers from California** with an Output entity name of **HighValueOnlinevsCustomersfromCalifornia** and click **Save**.

← New Segment Differenti... ×

Name *

High Value Online vs Customers from California

Output entity name *

HighValueOnlinevsCustomersfromCalifornia

Description

7. After the run is successful, you can click on the created insight to see a screen like below. Click on the Attributes or Measures tabs to see how the segments differ from each other with respect to them. Observe the **Difference score** which signifies the degree of difference. The higher the score the more different they are. *You may need to refresh the browser window to see the results.*

HighValueOnlinevsCustomersfromCalifornia

Attributes Measures

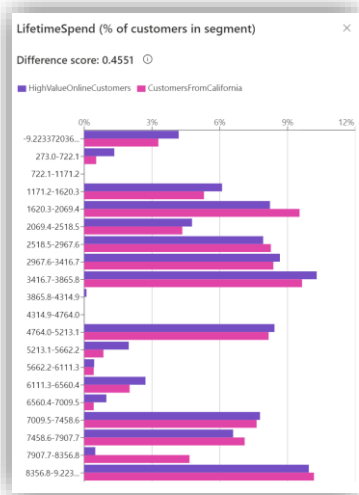
Rank ↑	Attribute	Difference score	①	HighValueOnlineCustomers (%)	CustomersFromCalifornia (%)
1	RewardPoints	0.0030		58.1667-74.2222 (6.44%)	58.1667-74.2222 (6.29%)

HighValueOnlinevsCustomersfromCalifornia

Attributes Measures

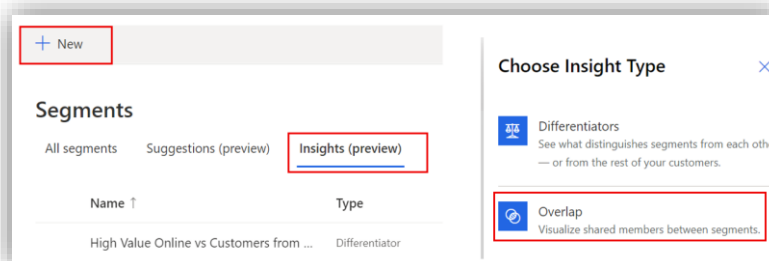
Rank ↑	Attribute	Difference score	①	HighValueOnlineCustomers (%)	CustomersFromCalifornia (%)
1	LifetimeSpend	0.4895		8722.0-9330.5 (54.80%)	8722.0-9330.5 (49.23%)

8. Click on each measure and attribute to see deeper insights.



9. You have successfully created segment insights using **Differentiators**. Now let's create using **Overlap**.

10. From the **Segments -> Insights** tab and click on **New** on the top left and choose **Overlap**.



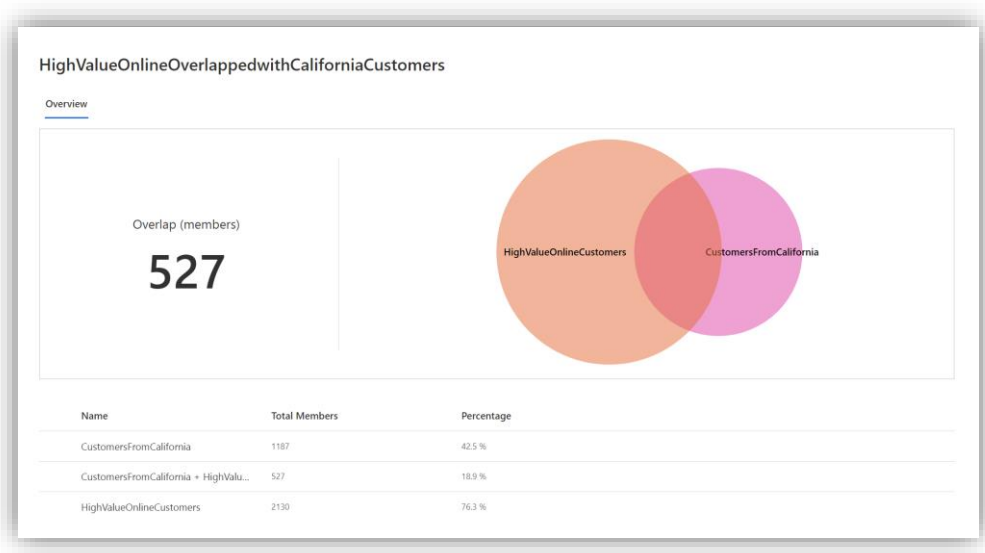
11. Select both **High Value Online Customers** and **Customers from California** segments to find out their shared customers.

12. Click **Next**.

13. Here as an optional step, you can also choose attributes to compare the segments just as we did with the **Differentiators**. Click **Next** to keep the defaults (**Income and RewardPoints**).

14. Name your insight as **High Value Online Overlapped with California Customers** and set the Output entity name as **HighValueOnlineOverlappedwithCaliforniaCustomers**, then click **Save**.


15. After the run is successful, you click on it to see the insights detailing the total and percentage of shared customers between the two segments.

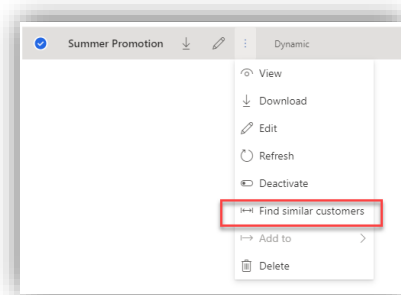


Task 6 – Segment Expansion

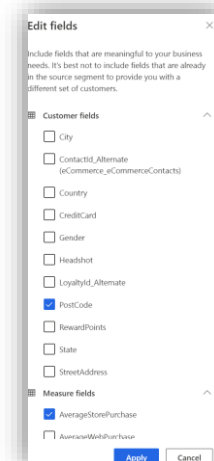
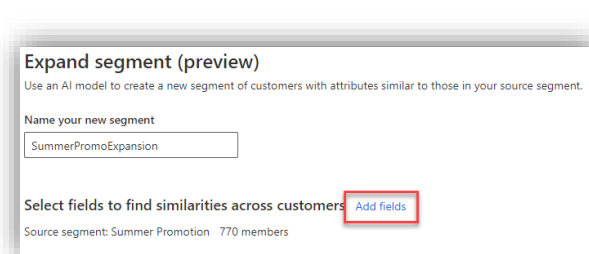
Segment Expansion can be used to find similar customers to your segment customer base using Artificial Intelligence.

Earlier we created a segment called **Summer Promotion** which has millennial customers with higher than average instore purchase. Here you'll expand that segment to find customers that are similar to them.

1. Click on **Segments** on the left menu and select the  to the right of the **Summer Promotion** segment.
2. Choose **Find similar customers**.



3. Name your segment **SummerPromotionExpansion**
4. Click on **Add fields** to select attributes and measures that are used to find similar customers. To target customers with similar average in-store purchase and location, choose **Customer fields: PostCode** and **Measure fields: AverageStorePurchase** and click **Apply**.





5. Select **All customers except source segment**.
6. Leave the **maximum number of customers you would like in your expanded segment** to the default, 20%
7. Leave **Include members from source segment in addition to customers with similar attributes** unchecked.
8. Click **Run**.

Expand segment (preview)

Use an AI model to create a new segment of customers with attributes similar to those in your source segment.

Name your new segment

2 fields will be used to find similarities across customers [Edit fields](#)

Source segment: Summer Promo 770 members

Choose who to consider in your new segment

☒ All customers except source segment ☐ Only customers in a different segment

Choose the maximum number of customers you would like in your expanded segment

For a higher average similarity score, choose a lower number of customers. If you want a higher number of customers, the AI model will include customers that are less similar. [Understanding the AI model](#)

out of 5227 customers

20% of customers from all customers will be in the new segment.

☐ Include members from source segment in addition to customers with similar attributes.

[Run](#)



9. After the run, you can see a new segment being created and click on it to find the similarity scores which range from 0.55 to 1.

- 0.85-1 -> Very similar
- 0.7-0.85 -> Similar
- 0.55-0.7 -> Somewhat similar

Segments

Segments Insights (preview)

Name	Type	State	Status	Members
High Value Online Customers	Dynamic	Active	✓ Successful	2130
Summer Promo	Dynamic	Active	✓ Successful	770
Customers from California	Dynamic	Active	✓ Successful	1187
<div><div>✓</div><div>SummerPromotio...</div><div><div><div></div></div><div><div></div></div><div><div></div></div></div></div> Expansion		Active	✓ Successful	1045

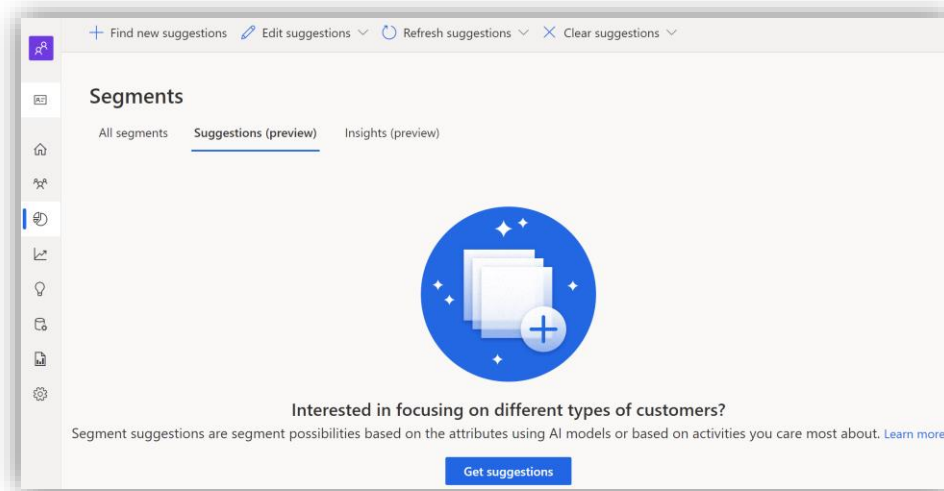
Customers similar to Summer Promo							
Here's how the similarity scores are distributed among 1045 members: 0 are very similar (0.85-1), 138 are similar (0.7-0.85), and 907 are somewhat similar (0.55-0.7). Understanding similarity scores							
Created: 9 minutes ago							
1045 member							
Segment members preview							
Customerid	SimilarityScore	PostCode	FirstName	LastName	FullName	DateOfBirth	Gender
00e5c7a789e086dcba4993...	0.692	68987	Sharon	Javers	Sharon Javers	9/5/1972, 12:00:00 AM (UTC)	Female
038d2486b2413618e2a6...	0.687	66611	Kevin	Jeffrey	Kevin Jeffrey	6/22/1969, 12:00:00 AM (UTC)	Male
059b53f6cddfa7f91916a...	0.6963	11660	Steven	Jax	Steven Jax	3/19/2000, 12:00:00 AM (UTC)	Male
07b8911b6b874da4cc3bd...	0.697	71084	David	Agustin	Agustin David	1/13/2002, 12:00:00 AM (UTC)	Male
0906b88399f586c1f4d3e...	0.7004	79692	Christopher	Eisley	Christopher Eisley	9/13/1971, 12:00:00 AM (UTC)	Male
0b32e354517a5c8ab6f653...	0.6963	90604	Robert	Alsup	Robert Alsup	12/3/2006, 12:00:00 AM (UTC)	Male
1155fb64c34bfccc7fcd33...	0.7004	38594	Dorothy	Meachem	Meachem Dorothy	1/6/2012, 12:00:00 AM (UTC)	Female
1448a012aef308bc3129e1...	0.687	70672	Richard	Naveed	Naveed Richard	1/23/1977, 12:00:00 AM (UTC)	Male
1647f21d2ec46c9fd546b4...	0.7004	80542	Dorothy	Korsak	Dorothy Korsak	3/26/1979, 12:00:00 AM (UTC)	Female
170b75007acaf48bdc919...	0.6919	85034	Susan	Cadmen	Cadmen Susan	10/17/2009, 12:00:00 AM (UTC)	Female
172da7b748f1022531955...	0.687	74804	Sarah	Germon	Sarah Germon	12/31/1974, 12:00:00 AM (UTC)	Female



Optional – Suggested Segments

Discover segments based on a numeric customer attribute or measure of interest

1. Under the Segments section, click on the **Suggestions (preview)** tab.

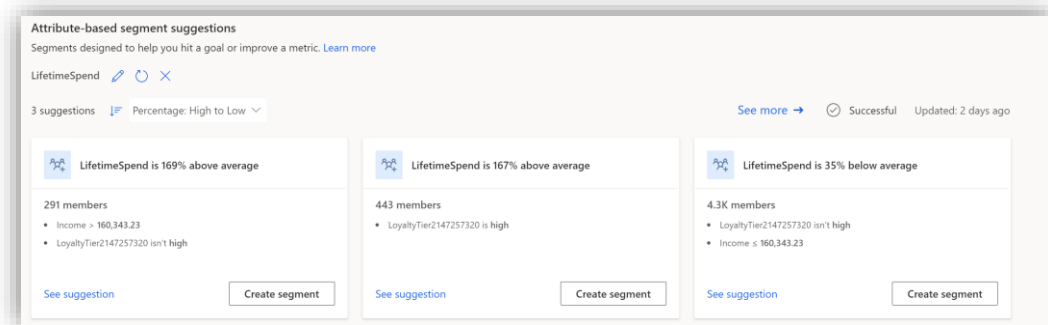


2. Click on **Get Suggestions** or **+ Find new suggestions**
3. Choose **Improve a measure/metric**, then select **Start**
4. Select **Measure fields: LifetimeSpend** as the target attribute (i.e., a customer attribute or measure of interest for which you want to discover segment suggestions) and click **Next**.
5. Select **Customer fields: Email Subscriber, Income, Loyalty Tier, Occupation** and **State** as the influencing attributes.

Note: In case you do not know which attributes to select, it is advised to select many attributes so that the model can analyze, and surface segment suggestions based on the underlying patterns it uncovers. However, if you want to see how certain attributes influence “LifetimeSpend”, you can choose only those as well.
6. Click on **Run**. The AI model will start finding patterns between the selected influencing attributes and the target attribute to surface segment suggestions.

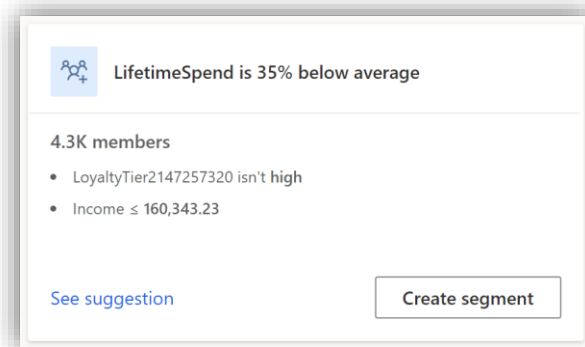


7. Once the model has finished running, if it was able to uncover patterns between the influencing attributes and the target attribute, segment suggestions will be displayed under the **Suggestions (preview)** tab. Click **See more** to see all suggestions.



Since a numeric attribute was chosen as the target attribute, segment suggestions include those where the average value of the chosen target attribute (LifetimeSpend) is **significantly higher or lower than the average** LifetimeSpend value across all customers. We will also explore a scenario where a categorical attribute (E.g. – Customer Satisfaction: low/medium/high) is chosen as the target attribute in the next task.

Each segment suggestion card denotes how the average LifetimeSpend in that segment compares to the overall average. The number of customers in the suggestion as well as the rules learned (i.e., common traits of customers in the segment) are also highlighted.



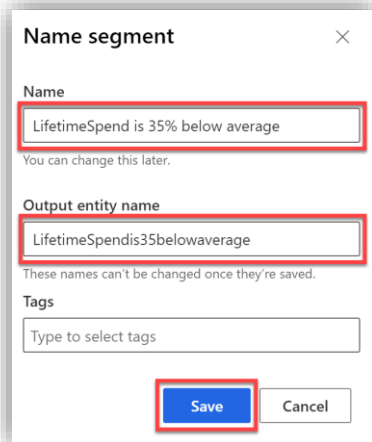
In the above suggestion, **LifetimeSpend is 35% below average**. I.e., The customers in this segment have historically spent much less compared to others. There are **4.3k members**, **their income is less than or equal to 160,343.23** and their **Loyalty Tier isn't high**.

8. Click **See suggestion** for **LifetimeSpend is 35% below average**. In the side panel, you will see the following:

- Comparison of average LifetimeSpend of customers in this segment compared to all the customers
- Number of customers in the segment and its proportion as compared to the entire customer base
- The attribute values i.e., the rules that the model learned based on the selected influencing attributes.

9. You can then save the segment by clicking on **Save as segment** in the side panel.

Name the segment and Output entity name as follows and click on **Save**.



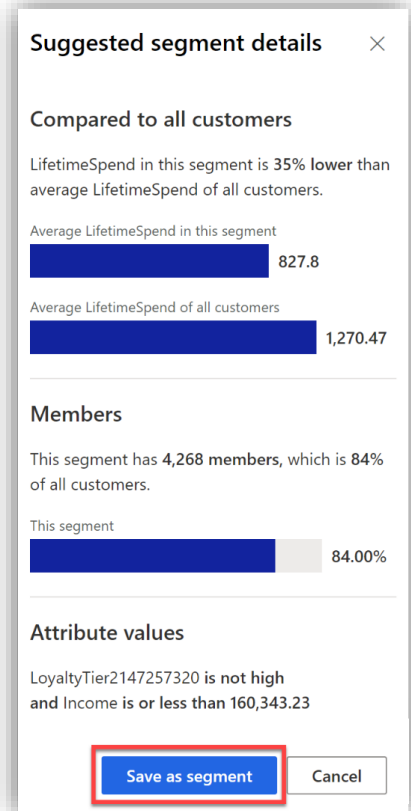
Name segment

Name
LifetimeSpend is 35% below average
You can change this later.

Output entity name
LifetimeSpendis35belowaverage
These names can't be changed once they're saved.

Tags
Type to select tags

Save Cancel



Suggested segment details

Compared to all customers

LifetimeSpend in this segment is 35% lower than average LifetimeSpend of all customers.

Average LifetimeSpend in this segment: 827.8

Average LifetimeSpend of all customers: 1,270.47

Members

This segment has 4,268 members, which is 84% of all customers.

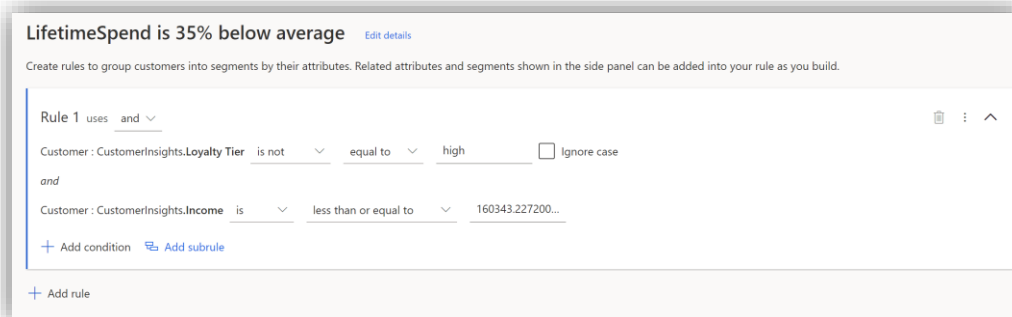
This segment: 84.00%

Attribute values

LoyaltyTier2147257320 is not high and Income is or less than 160,343.23

Save as segment Cancel

10. The saved segment can then be viewed under the **All segments** tab and it can be used for downstream processes like any other dynamic segment. If you wish to look at the rules that the model learned after saving a segment, you can do so by clicking **Edit** next to the segment name (pencil icon or ellipsis)



LifetimeSpend is 35% below average [Edit details](#)

Create rules to group customers into segments by their attributes. Related attributes and segments shown in the side panel can be added into your rule as you build.

Rule 1 uses and

Customer : CustomerInsights.Loyalty Tier is not equal to high ☐ Ignore case

and

Customer : CustomerInsights.Income is less than or equal to 160343.227200...

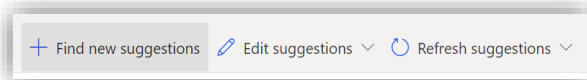
[+ Add condition](#) [+ Add subrule](#)

[+ Add rule](#)

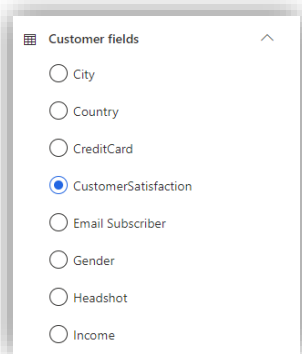


Discover segments based on a categorical customer attribute or measure of interest

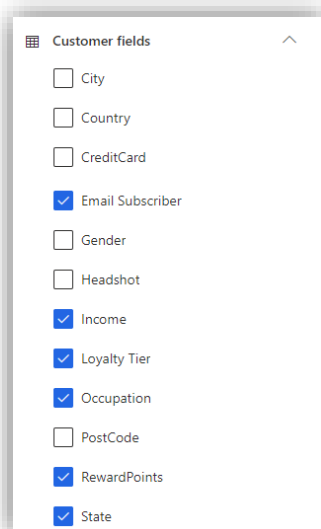
1. Under the Suggestions tab, click on **Find new suggestions** in the top menu to explore segment suggestions based on a different customer attribute or measure. ***This will replace the existing set of suggestions.***



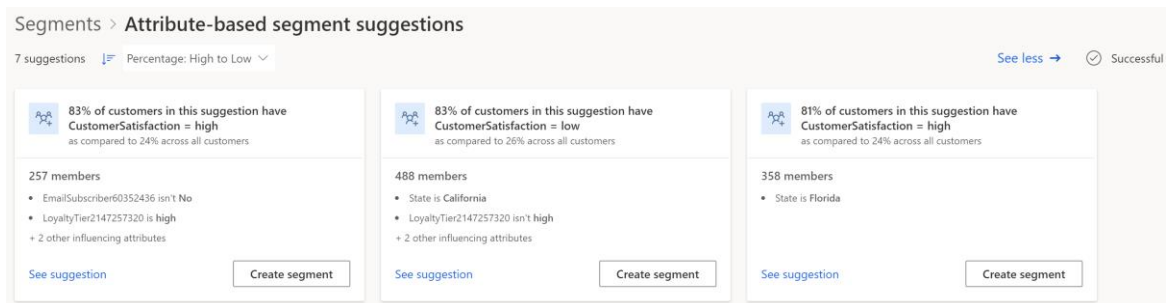
2. Select **Improve a measure/metric**
3. Select **CustomerSatisfaction** as the target attribute of interest. Customer Satisfaction is a categorical attribute with 3 categories (low/medium/high) and we'd like to find segment suggestions based on this attribute. Then click **Next**.



4. Select **Email Subscriber, Income, Loyalty Tier, Occupation, RewardsPoints** and **State** as the influencing attributes.

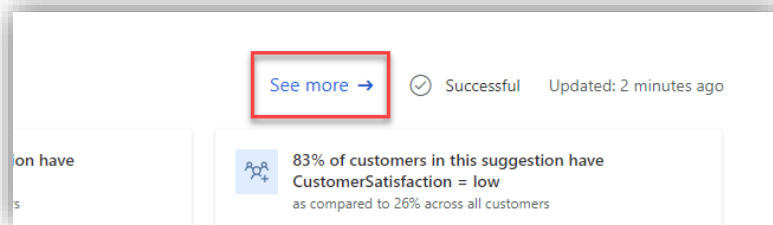


5. Click on **Run**. The AI model will start finding patterns between the selected influencing attributes and the target attribute to surface segment suggestions. Please wait for a few minutes for the model to finish its analysis.
6. Once the model has finished running, segment suggestions will be displayed under the **Suggestions (preview)** tab.



Since the target attribute is categorical, the AI model tries to find patterns/common traits of customers belonging to a particular category of the target attribute and surfaces segment suggestions. Since Customer Satisfaction has 3 different categories – **low, medium and high** – the AI model will try to find segments of customers that possess the same traits and a significant portion of them belong to a particular category (i.e., either low, medium or high).

Note: While only a few tiles are shown initially, you can click the **See More** link to see more suggestions that were found.

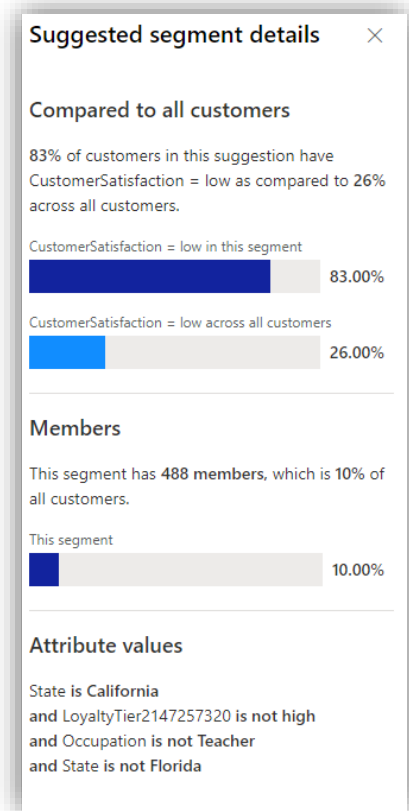


7. You can click on any suggestion to see segment details in the side panel. We will click on the suggestion that says **83% of customers in this suggestion have CustomerSatisfaction = low**. In the side panel, you will see the following:



- Comparison of percentage of customers in this segment that have CustomerSatisfaction = Low as compared to percentage of all customers that have CustomerSatisfaction = Low
- Number of customers in the segment and its proportion as compared to the entire customer base
- The attribute values i.e. the rules that the model learned based on the selected influencing attributes.

In this case, **83%** of customers in this segment have CustomerSatisfaction = low as compared to **26%** among all customers. There are **488** members in this segment which is **10%** of the entire customer base. These customers are ***live in California, do not belong to the high loyalty tier, are not Teachers and do not live in Florida***. This helps provide insight that 94% of customers having the above-mentioned traits have a low customer satisfaction. This information can then be used to target customers in this segment with personalized messaging and/or customer service to help improve their customer satisfaction and in turn address corresponding business goals.



8. Create this segment by clicking on **Save as segment** in the side panel. The segment can then be viewed under the **All segments** tab and it can be used for downstream processes like any other dynamic segment. If you wish to look at the rules that the model learned after saving a segment, you can do so by clicking **Edit** next to the segment name (pencil icon or ellipsis)



Exercise 2 – Customer Search

The **Unify process (Map → Match → Merge)** that was completed in Lab 4A resulted in a unified customer profile.

In this lab you'll setup Search and Filter criteria to enable Customer Insights users to search for unified customer profiles. This will enable them to quickly pull information on a specific customer or group of customers.

Task 1 – Configure the Search Columns and Filter Index

1. Click **Customers** in the left menu bar
2. Click **Search & filter index**
3. You're going to Add more search fields (in addition to the default fields that are shown) by clicking + **Add**

Select the following fields (if not already select) and then click **Add**: **CustomerId, FirstName, LastName, FullName, Email, PostCode, Headshot, ContactId, LoyaltyId,**

4. These fields will be indexed and used when searching for a Customer profile.

You can also apply string filters like sort attributes from A-Z or Z-A or highest to lowest frequency. To do that, click **Add filter** or **Edit Filter options** across the selected search fields.

5. Click **Save** and then **Run**

Add fields to index [X]

Select up to 20 customer fields. 9 of 20 added

Search

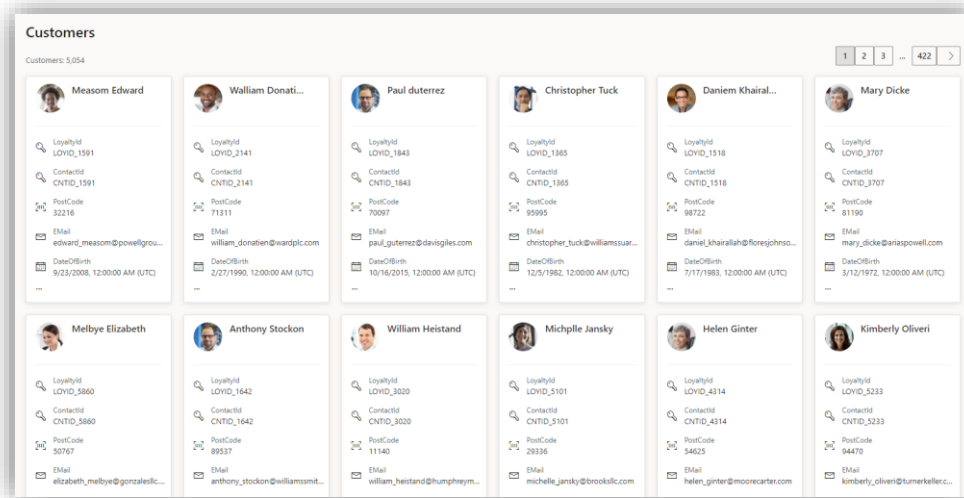
- ☐ Gender
- ☒ EMail
- ☐ Telephone
- ☒ PostCode
- ☐ StreetAddress
- ☐ City
- ☐ State
- ☐ Country
- ☒ LoyaltyId
- ☒ ContactId
- ☐ ContactId_Alternate
- ☐ ContactId
- ☐ ContactId_Alternate

[Cancel] [Add]



Task 2 – Search for a Customer Record

1. Click **Customers** in the left menu bar. You should now be presented with a set of customer cards, representing the Unified Profiles. You can expand cards to see more about the customer or sort the cards with various fields by clicking on **Expand cards** and **Sort** options on the top.



2. You can use the search bar to search for **Text attributes** relating to unified customer profiles. E.g., Searching '**24502**' will search against all text attributes and return matches and partial matches.

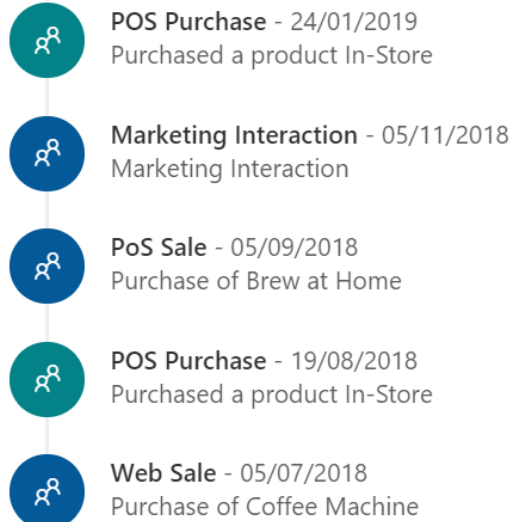
Use the search bar to answer the following questions.

- What is Brian Gobble's Date of Birth?
(Search with 'Gobble' or 'Brian Gobble')
- Which customer has Loyalty Card ID LOYID_5707?
(Search with 'LOYID_5707')
- Which customer has a postcode of 24502?
(Search with '24502')



Exercise 3 – Setting up Activities

Activities consolidate customer activities from various data sources that you can add as a timeline view on the unified customer profile. Activities can also be embedded in business applications.

- 
- POS Purchase** - 24/01/2019
Purchased a product In-Store
 - Marketing Interaction** - 05/11/2018
Marketing Interaction
 - PoS Sale** - 05/09/2018
Purchase of Brew at Home
 - POS Purchase** - 19/08/2018
Purchased a product In-Store
 - Web Sale** - 05/07/2018
Purchase of Coffee Machine

Activities are any customer touch point – these include purchases, customer service cases, emails, phone calls, branch visits, web, and social media activity to name a few. In other scenarios interactions could also be data gathered from connected devices, withdrawals or deposits in banking, entry/exist of a premises or area.



Task 1 – Add an activity for eCommerce Purchases

1. Within Customer Insights, Expand **Data** -> **Activities** on the left menu and click **+ Add Activity**
2. On the **Activity data** screen set the following values:
 - Activity name: **OnlinePurchase**
 - Entity: **Purchases : eCommerce**
 - Primary Key: **PurchaseId**

Set up your activity data

Choose which entity contains relevant activity data, then choose a field to be the primary key that will identify that entity. All fields are required.

Activity name
OnlinePurchase

Start with a letter. Use letters and numbers only.

Entity
Purchases : eCommerce2

Primary key
PurchaseId

3. Click **Next**. On the **Relationships** screen click Add relationship

Set up your relationships

Choose at least one customer entity you want to link activity data to, and then choose a field in the activity entity to be the foreign key that will connect them. This will make it possible to look at customer profiles and see their activity. All fields are required.

Activity entity
Purchases : eCommerce2

+ Add relationship

4. In the **Add relationship path** pop-up set the following values:
 - Foreign key: **ContactId**
 - To entity name: **Contacts : eCommerce**
 - Relationship name: **eCommPurchasesToContacts**

Add relationship path

Select the entity that you want to connect to the activity entity "Purchases : eCommerce2".

Relationship
Foreign key from Purchases : eCommerce2
ContactId

To entity name
Contacts : eCommerce2
Primary key ContactId

Relationship name
eCommPurchasesToContacts

Start with a letter. Use letters and numbers only.



5. Click **Apply** to close the pop-up
6. Click **Next**
7. On the **Unify your customer activity data** screen set the following values:
 - Event activity: **ActivityTypeDisplay**
 - Timestamp: **PurchasedOn**
 - Additional detail: **Subject**
 - Icon:
 - Web address: <blank>
 - Show this information...: **Yes**

Unify your customer activity data

Map your activity data to these fields to include it in unified customer data:

Event activity *

ActivityTypeDisplay

Timestamp *

PurchasedOn

Additional detail

Subject

Icon

Web address

Select field

Show this information in the timeline view on your customer profiles?
If you choose not to, you'll still be able to export the activity data via the unified activity entity to other platforms or services.

☒ Yes ☐ No

Example timeline view

Activity Timeline Filter

\$ Purchases

JUL 2021 (5)

- ActivityTypeDisplay - 7/31/2021, 12:00 AM
Subject
- ActivityTypeDisplay - 7/30/2021, 12:00 AM
Subject
- ActivityTypeDisplay - 7/28/2021, 12:00 AM
Subject
- ActivityTypeDisplay - 7/25/2021, 12:00 AM
Subject
- ActivityTypeDisplay - 7/21/2021, 12:00 AM
Subject

8. Click **Next**
9. Set the Activity type to **SalesOrder**, select **Yes** for Provide semantic mapping for your activity's attributes and Map the field as follows:
 - Sales order ID: **PurchaseID**
 - Order date: **PurchasedOn**
 - Sales amount: **TotalPrice**
 - Store ID: <blank> or **None**
 - Is return: <blank> or **None**



Set activity type

Choose the type of activity you want to monitor:

Activity type

SalesOrder

Set your mapping preferences:

Provide semantic mapping for your activity's attributes?

Semantic mapping helps the system better understand the meaning and relevance of your activity data.

☒ Yes ☐ No

Now map your data to the activity type's related fields:

Sales order ID *

PurchaseId

Order date *

PurchasedOn

Sales amount

TotalPrice

Store ID

Select field

Is return?

Select field

10. Click **Next**, review your entries then click **Save activity** and click **Done**



Task 2 – Add an activity for PoSPurchases

1. Click **Add Activity**
2. On the **Activity data** screen set the following values:
 - Activity name: **PoSPurchase**
 - Entity: **Purchases : PoS**
 - Primary Key: **PurchaseId**

Set up your activity data

Choose which entity contains relevant activity data, then choose a field to be the primary key that will identify that entity. All fields are required.

Activity name

Start with a letter. Use letters and numbers only.

Entity

Primary key

3. Click **Next**. On the **Relationships** screen click Add relationship

Set up your relationships

Choose at least one customer entity you want to link activity data to, and then choose a field in the activity entity to be the foreign key that will connect them. This will make it possible to look at customer profiles and see their activity. All fields are required.

Activity entity

[+ Add relationship](#)

4. In the **Add relationship path** pop-up set the following values:

- Foreign key: **LoyaltyId**
- To entity name: **Customers : Loyalty**
- Relationship name: **PoSPurchasesToLoyalty**

5. Click **Apply** to close the pop-up

6. Click **Next**

Add relationship path

Select the entity that you want to connect to the activity entity "Purchases : PoS".

Relationship

Foreign key from Purchases : PoS

To entity name

Primary key LoyaltyId

Relationship name

Start with a letter. Use letters and numbers only.



7. On the **Unify your customer activity data** screen set the following values:

- Event activity: **ActivityTypeDisplay**
- Timestamp: **PurchasedOn**
- Additional detail: **Subject**
- Icon:
- Web address: <blank>
- Show this information...: **Yes**

Unify your customer activity data

Map your activity data to these fields to include it in unified customer data:

Event activity *

ActivityTypeDisplay

Timestamp *

PurchasedOn

Additional detail

Subject

Icon

Web address

Select field

Show this information in the timeline view on your customer profiles?
If you choose not to, you'll still be able to export the activity data via the unified activity entity to other platforms or services.

☒ Yes ☐ No

Example timeline view

Activity Timeline Filter

5 Purchases

JUL 2021 (5)

- ActivityTypeDisplay - 7/31/2021, 12:00 AM
Subject
- ActivityTypeDisplay - 7/30/2021, 12:00 AM
Subject
- ActivityTypeDisplay - 7/28/2021, 12:00 AM
Subject
- ActivityTypeDisplay - 7/25/2021, 12:00 AM
Subject
- ActivityTypeDisplay - 7/21/2021, 12:00 AM
Subject

8. Click **Next**

9. Set the Activity type to **SalesOrder**, select **Yes** for Provide semantic mapping for your activity's attributes and Map the field as follows:

- Sales order ID: **PurchaseID**
- Order date: **PurchasedOn**
- Sales amount: **TotalPrice**
- Store ID: **<blank> or None**
- Is return: **<blank> or None**



Set activity type

Choose the type of activity you want to monitor:

Activity type

SalesOrder

Set your mapping preferences:

Provide semantic mapping for your activity's attributes?

Semantic mapping helps the system better understand the meaning and relevance of your activity data.

☒ Yes ☐ No

Now map your data to the activity type's related fields:

Sales order ID *

PurchaseId

Order date *

PurchasedOn

Sales amount

TotalPrice

Store ID

Select field

Is return?

Select field

10. Click **Next**, review your entries then click **Save activity** and **Done**



Task 3 – Add an activity for Website Reviews

1. Click **Add Activity**
2. On the **Activity data** screen set the following values:
 - Activity name: **WebsiteReview**
 - Entity: **Reviews : Website**
 - Primary Key: **ReviewId**

3. Click **Next**. On the **Relationships** screen click Add relationship

4. In the **Add relationship path** pop-up set the following values:


- Foreign key: **UserId**
- To entity name: **Contacts : eCommerce**
- Relationship name: **WebReviewsToContacts**

5. Click **Apply** to close the pop-up

6. Click **Next**



7. On the **Unify your customer activity data** screen set the following values:

- Event activity: **ActivityTypeDisplay**
- Timestamp: **ReviewDate**
- Additional detail: **ReviewText**
- Icon: 
- Web address: <blank>
- Show this information...: **Yes**

Unify your customer activity data

Map your activity data to these fields to include it in unified customer data:

Event activity *

ActivityTypeDisplay


Timestamp *

ReviewDate

Additional detail

ReviewText

Icon



Web address

Select field

Show this information in the timeline view on your customer profiles?
If you choose not to, you'll still be able to export the activity data via the unified activity entity to other platforms or services.

☒ Yes ☐ No

Example timeline view

Activity Timeline Filter

5 Reviews

JUL 2021 (5)

- ActivityTypeDisplay - 7/31/2021, 12:00 AM
ReviewText
- ActivityTypeDisplay - 7/30/2021, 12:00 AM
ReviewText
- ActivityTypeDisplay - 7/28/2021, 12:00 AM
ReviewText
- ActivityTypeDisplay - 7/25/2021, 12:00 AM
ReviewText
- ActivityTypeDisplay - 7/21/2021, 12:00 AM
ReviewText

8. Click **Next**

9. One the **Set activity type** screen set the type to **Create New** and then enter **WebsiteReview** for the Activity Type Name.

Set activity type

Choose the type of activity you want to monitor:

Activity type

Create new

Activity type name *

WebsiteReview

Start with a letter. Use letters and numbers only.

10. Click **Next**, review your entries then click **Save activity** and **Done**



Task 4 – Confirm the Activities

1. Click **Run** on the top to run the configured activities. Once they have completed click on **Customers** in the left-hand menu
2. Search for **Abbie Moss**
3. You can now see activities listed for **Abbie** on the timeline.

The screenshot displays the Customer Insights interface for a customer named Abbie Moss. On the left, a profile card shows her name, location (Fairfield, California, USA), last activity (5/24/2019), and various contact details. The main section features an 'Activity timeline' with a red box highlighting the activity list. The timeline shows a sequence of activities: 4 Purchases, 5 Purchases, and 5 Reviews. Below these, a list of activities is shown, including 'POS Purchase - 5/24/2019', 'POS Purchase - 4/19/2019', 'WebsiteReview - 2/1/2019', 'WebsiteReview - 1/29/2019', 'WebsiteReview - 1/22/2019', and 'OnlinePurchase - 1/20/2019'. On the right, summary cards provide metrics such as 'Average Web Purchases' (2.0K), 'Average Store Purchases' (104.6), 'Lifetime Spend (\$)' (8.4K), and 'Total Rewards Points' (773).

4. Click **Filter** to filter by activity type and date. You can also just select an activity type icon to filter by it.

This screenshot shows the 'Activity timeline' section with three activity type icons: '4 Purchases' (shopping bag icon), '5 Purchases' (shopping bag icon), and '5 Reviews' (globe icon). A red box highlights the '4 Purchases' icon. Above the icons, there are 'Clear filters' and 'Filter' buttons. The 'Filter' button is also highlighted with a red box.

The 'Filter activities' dialog box is shown, allowing users to filter by activity type and date. It includes a 'Clear all' button and a 'Select all' button. Under 'Activity type', there are checkboxes for 'WebsiteReview', 'OnlinePurchase', and 'PoSPurchase'. Under 'Date', there are radio buttons for 'All', 'Before', 'After', and 'Between'. The 'All' radio button is selected.



Exercise 4 – Enriching the Data

Data Enrichment leverages data from Microsoft and other partners to enrich your customer profiles. You will select the brands and interests that are relevant for your business. For this exercise, you will look for specific coffee companies and beverage related categories that align to Contoso Coffee.

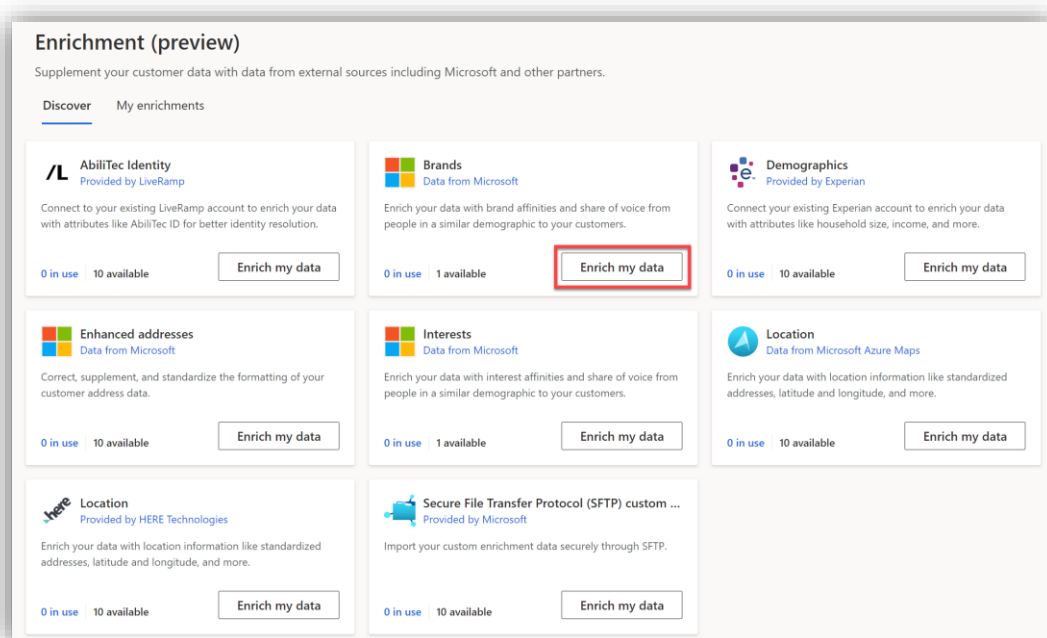
Think of enrichment as a way to say, “for each of my customers, show me their likely affinity towards each of the brands and interests based on the fields I map”. Then for each customer, Customer Insights looks for all customers that are similar age, location and/or gender and calculate their brand affinity and interests.

If you leverage third party applications to enrich your data, you’ll need an active license/subscription for that service.

For this lab, we will configure enrichment using Brands (Data from Microsoft).

Task 1 – Adding Brand Enrichment

1. Navigate to **Data -> Enrichment**
2. Click the **Enrich my data** button on the **Brands** tile





3. Click **Next**
4. Click **Select an industry** dropdown
5. Review the list of categories that are presented in the **Industry** dropdown. Note that there isn't anything specific to your industry (coffee). You could possibly use **Retailers & General Merchandise** but that is not specific enough. Entering brands manually will get to the level of specificity that is needed.
6. Select **Enter brand names manually**
7. In the **Brands** box enter these brands (select them when they appear):
 - **Peet's Coffee**
 - **Blue Bottle Coffee**
 - **Caribou Coffee**
 - **Dunkin Donuts**
 - **Starbucks**

Enter brand names manually	
Selected brands	
Peet's Coffee	X
Blue Bottle Coffee	X
Caribou Coffee	X
Dunkin' Donuts	X
Starbucks	X

8. Click **Next**
9. On the **Enrichment preferences** screen leave the brand affinity level at **Medium** (Include profiles with Medium to Very high affinity levels) and set the match precision to **Exact and aggregate**
10. Click **Next**



11. On the **Add customer Data** screen choose **Customer** under **Profiles** in the **Customer data set** dropdown, then click **Next**.

12. On the **Data Mapping** screen, choose the fields that map your data with the data from the corresponding brand attributes. We can map both demographics as well as location information. At a minimum you must map a country/region. Mapping more attributes will get more refined results.

The system will pre-fill the entries when it can find a likely match. You can override these by clicking the dropdown and selecting a different field. Here are the settings to use:

- Date of Birth: **DateOfBirth**
- Gender: **Gender**
- Country/Region: **Country**
- Postal Code: **PostCode**
- City: **City**
- State/Province: **State**

Overview

Brands

Preferences

Required data

Attribute mapping

Review and run

Data mapping

Map your field names to the corresponding Brands attributes.

Demographics

You must map at least one of the two demographic attributes below.

Date of birth

DateOfBirth

Gender

Gender

+ Add attribute

Location

You must map Country/Region. Additionally, you must map at least one of City (and State/Province) or ZIP/Postal Code.

Country/Region *

Country

ZIP/Postal Code

PostCode

City

City

State/Province

State

+ Add attribute

13. Click **Next** and review your entries

14. Name your enrichment **BrandEnrichment**

15. Click **Save enrichment** and then **Run**

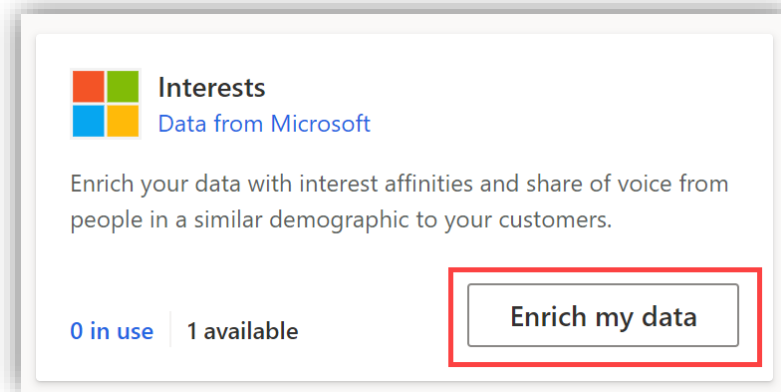
40 | Page

Lab 3



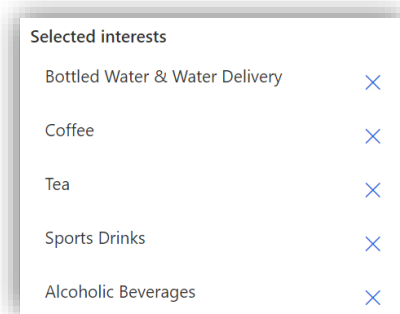
Task 2 – Adding Interests Enrichment

1. Navigate to **Data -> Enrichment -> Discover**
2. Click the **Enrich my data** button on the **Interests** tile and then **Next**



3. In the **Enter interests manually** box enter these interests:

- **Bottled Water & Water Delivery**
- **Coffee**
- **Tea**
- **Sports Drinks**
- **Alcoholic Beverages**



4. Click **Next**
5. On the **Enrichment preferences** screen leave the brand affinity level at **Medium** and set the match precision to **Exact and aggregate**
6. Click **Next**



- On the **Add data set** screen choose **Customer** from the **Profiles** section in the dropdown, then click **Next**.

Add customer Data

Choose a data set containing customer profiles you want to enrich.

Customer data set *

Customer

Profiles

Customer

- On the **Data Mapping** screen choose the fields to map your data with the corresponding Interests attributes. Here are the settings to use:

- Date of Birth: **DateOfBirth**
- Gender: **Gender**
- Country/Region: **Country**
- Postal code: **PostCode**
- City: **City**
- State/Province: **State**

Data mapping

Map your field names to the corresponding Brands attributes.

Demographics

You must map at least one of the two demographic attributes below.

Date of birth

DateOfBirth

Gender

Gender

+ Add attribute

Location

You must map Country/Region. Additionally, you must map at least one of City (and State/Province) or ZIP/Postal Code.

Country/Region *

Country

ZIP/Postal Code

PostCode

City

City

State/Province

State

+ Add attribute

- Click **Next** and review your entries



10. Name your enrichment **InterestEnrichment**

11. Click **Save enrichment** and then **Run**

12. The enrichments should be refreshing, if not you can click on **Run all** in the top menu and let the enrichments run

Task 3 – Review the Enriched Data

Once enrichment has finished running, it may take a bit, you can then look at what was created.





1. The first thing you will see is the number of profiles that were enriched with data.

Enrichment (preview)

Supplement your customer data with data from external sources including Microsoft and other partners.

Discover

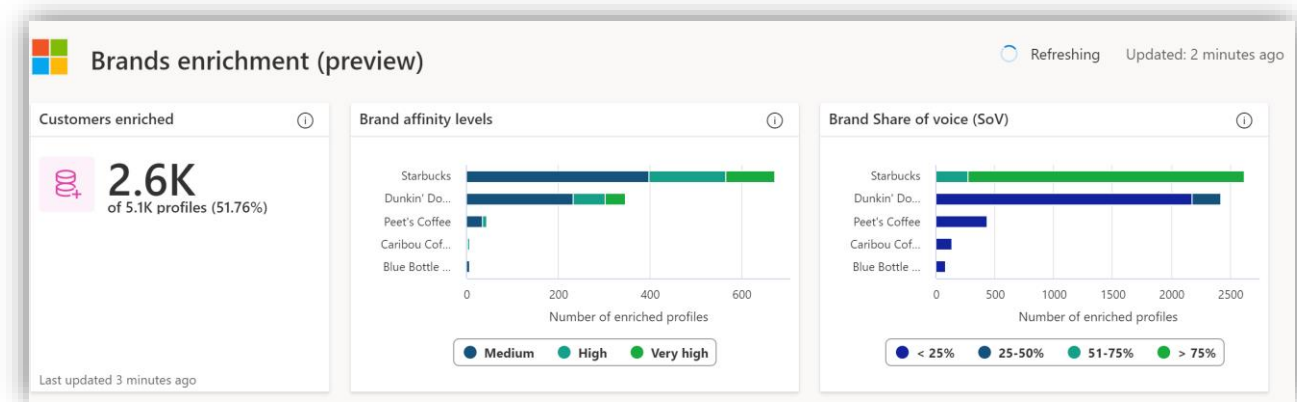
My enrichments

Name ↑		Enrichment	State	Status	Enriched customers	Refreshed
BrandEnrichment		Brands from Microsoft	Active	 Successful	2610 out of 5054	8 minutes ago
InterestEnrichment		Interests from Microsoft	Active	 Successful	2596 out of 5054	4 minutes ago

2. Click on **BrandEnrichment** and/or **InterestEnrichment** to see the results.

Affinity is a comparative across demographic segments. You can use this information to identify demographic segments that have the highest affinity for a given brand or interest, compared to other segments

Share of voice is a comparative across your selected brands or interests. You can use this information to identify which brand or interest has the highest share-of-voice for a given demographic segment, compared to other brands or interests you selected.



3. To look at the enrichment data, click on **Data -> Entities** and then under **Enrichment** click any of the entities and then **Data**

- **BrandAffinityFromMicrosoft**
- **BrandShareOfVoiceFromMicrosoft**
- **InterestAffinityFromMicrosoft**
- **InterestShareOfVoiceFromMicrosoft**

Customer Insights
BrandAffinityFromMicrosoft

Attributes Data

Successful Updated 27 minutes ago

ID	CustomerID	EnrichmentWorld	Industry	Brand	AffinityScore	AffinityLevel	AgeDemographicSegment	GenderDemographicSegment
14b79c3c-1405-4040-82e7-c0d0302645b	9407222277a0532a2a207000076	Recid073-1440-4001-0000-0a76a000000	Food & Grocery	Dunkin' Donuts	20	Medium		F00002
41a4f4a2-54d8-49d7-805d-a0000000000	00000000000000000000000000000000	Recid073-1440-4001-0000-0a76a000000	Food & Grocery	Dunkin' Donuts	74	High	AGE01_M	F00002
29e95867-2516-4357-8b3b-5d800000000	07000000000000000000000000000000	Recid073-1440-4001-0000-0a76a000000	Food & Grocery	Dunkin' Donuts	40	Medium		F00002
3ac26501-4034-400a-8c0d-43720000000	07000000000000000000000000000000	Recid073-1440-4001-0000-0a76a000000	Food & Grocery	Starbucks	40	Medium		M0002
3c163847-800b-405f-8e10-0c000000000	00000000000000000000000000000000	Recid073-1440-4001-0000-0a76a000000	Food & Grocery	Starbucks	40	Medium		M0002
979d00ef-6d13-409a-e000-5ee00000000	07000000000000000000000000000000	Recid073-1440-4001-0000-0a76a000000	Food & Grocery	Dunkin' Donuts	70	High		F00002
4230e0d7-8840-4020-104f-7c240000000	07000000000000000000000000000000	Recid073-1440-4001-0000-0a76a000000	Food & Grocery	Starbucks	40	Medium		F00002
9504ba8e-84d9-40e0-ae00-e0000000000	07000000000000000000000000000000	Recid073-1440-4001-0000-0a76a000000	Food & Grocery	Starbucks	30	Medium		F00002
6a08a66e-0d13-4041-0710-1a000000000	00774000000000000000000000000000	Recid073-1440-4001-0000-0a76a000000	Food & Grocery	Starbucks	74	High		F00002
0347220e-0e40-410c-0710-7c357000000	00774000000000000000000000000000	Recid073-1440-4001-0000-0a76a000000	Food & Grocery	Starbucks	74	High		F00002
4b08b6d0-9d50-4020-8d50-09000000000	00000000000000000000000000000000	Recid073-1440-4001-0000-0a76a000000	Food & Grocery	Dunkin' Donuts	40	Medium	AGE01_M	F00002
53100ba7-c064-4705-0040-54400000000	07000000000000000000000000000000	Recid073-1440-4001-0000-0a76a000000	Food & Grocery	Dunkin' Donuts	70	High		F00002
00000000-1225-4002-0000-30970000000	00000000000000000000000000000000	Recid073-1440-4001-0000-0a76a000000	Food & Grocery	Starbucks	50	Medium		F00002
03000000-0000-4000-0000-00000000000	00000000000000000000000000000000	Recid073-1440-4001-0000-0a76a000000	Food & Grocery	Starbucks	37	Medium		M0002
0374270e-4703-40ef-0000-00000000000	00000000000000000000000000000000	Recid073-1440-4001-0000-0a76a000000	Food & Grocery	Starbucks	40	Medium		M0002
00000000-0000-4000-0000-00000000000	00000000000000000000000000000000	Recid073-1440-4001-0000-0a76a000000	Food & Grocery	Starbucks	80	VeryHigh		M0002
00000000-0000-4000-0000-00000000000	00000000000000000000000000000000	Recid073-1440-4001-0000-0a76a000000	Food & Grocery	Peet's Coffee	87	VeryHigh	AGE01_M	M0002

In the **Affinity** entities, you will see the Industry the brand/interest is listed in, the Affinity score for a customer profile, the Affinity level, and demographic information depending on which fields you mapped.

In the **ShareOfVoice** entities, you will see the Industry the brand/interest is listed in, Share Of Voice score and demographic information depending on which fields you mapped.

From this view you can also download a CSV of the data to work with offline.

4. Go to the **Customer** page pick a customer (**Joseph Chestnut** is the example below). Go to the customer detail page to see the enrichment that pertains to 'people like' that customer. This is based on the fields you chose to map when you configured the Enrichment: **Date Of Birth, Gender and Location**.

