

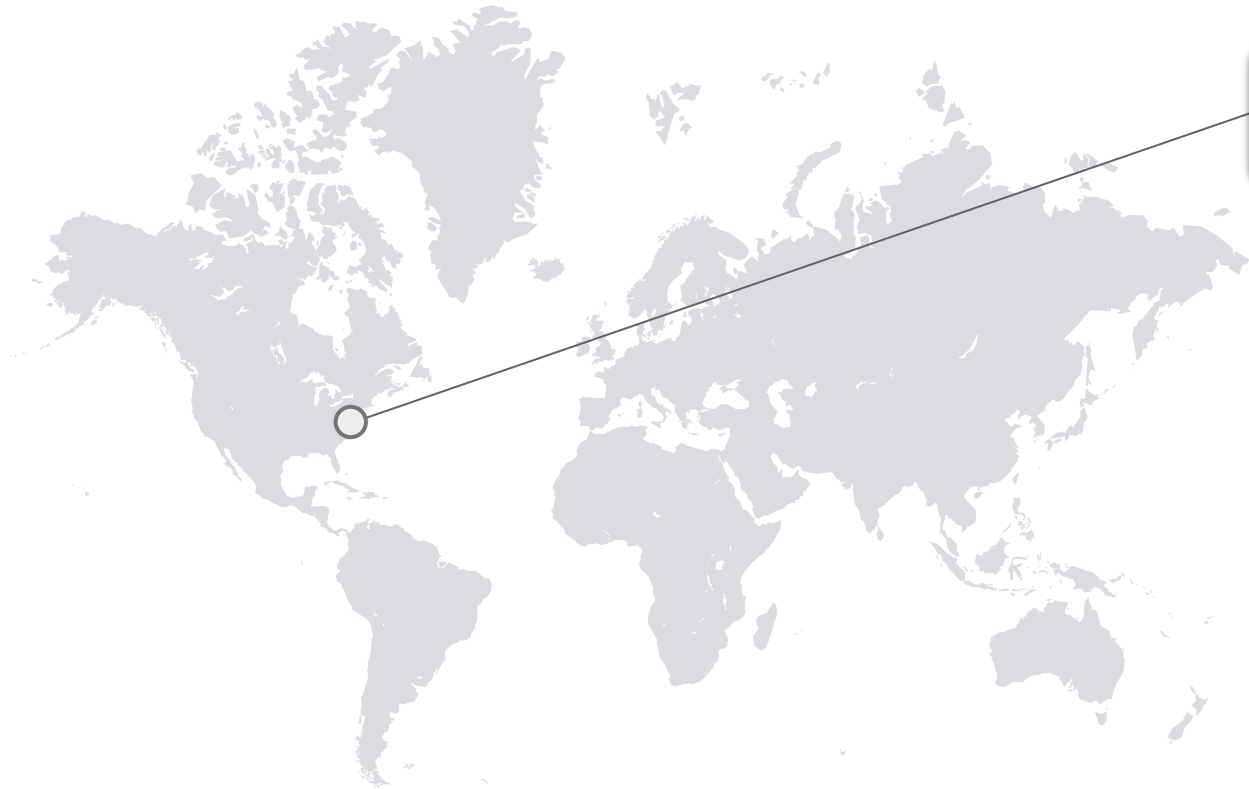
# Flexible Reporting

Google Ads API Migration Workshops - 2021



**Sasha Friedenber**g, Developer Relations Engineer

# Presenter



**Sasha Friedenberg**  
*Developer Relations Engineer*

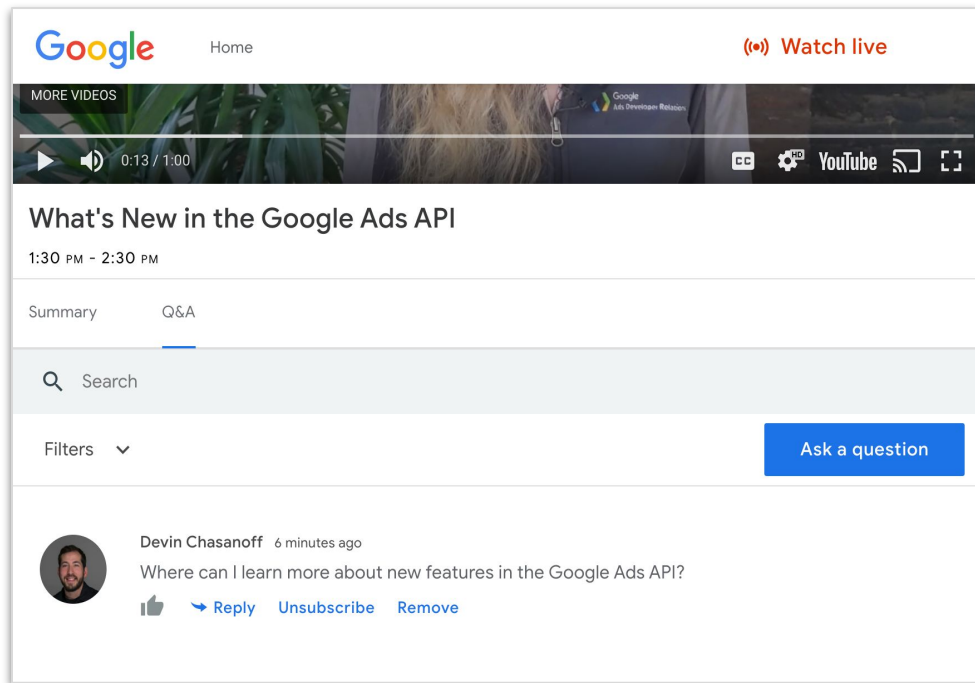
# Day 2 Workshops

- Flexible Reporting (this workshop)
- The Ultimate GAQL Workshop
- A Simple Model for Mutates
- Micro-migration: Reporting & Mutates



# We're Here to Help!

- Q&A forum located below the video
- Our team is standing by to help answer your questions
- Submit questions at anytime
- Upvote interesting questions



The screenshot shows a YouTube video player interface. At the top, the Google logo is on the left, 'Home' is in the center, and a 'Watch live' button is on the right. Below the logo is a 'MORE VIDEOS' section with a video thumbnail. The video player shows a play button, a volume icon, and a progress bar at 0:13 / 1:00. To the right of the progress bar are icons for closed captions, settings, YouTube, and full screen. Below the video player, the title 'What's New in the Google Ads API' is displayed, followed by the time '1:30 PM - 2:30 PM'. There are two tabs: 'Summary' and 'Q&A', with 'Q&A' being the active tab. Below the tabs is a search bar with a magnifying glass icon and the text 'Search'. To the left of the search bar is a 'Filters' dropdown menu. To the right is a blue button labeled 'Ask a question'. Below the search bar, there is a question from 'Devin Chasanoff' posted '6 minutes ago'. The question text is 'Where can I learn more about new features in the Google Ads API?'. Below the question are icons for a thumbs up, a reply arrow, and links for 'Reply', 'Unsubscribe', and 'Remove'.

# Agenda

- Anatomy of a request
  - Making a request
  - Understanding `GoogleAdsRow`
- Writing queries
- Developer tools

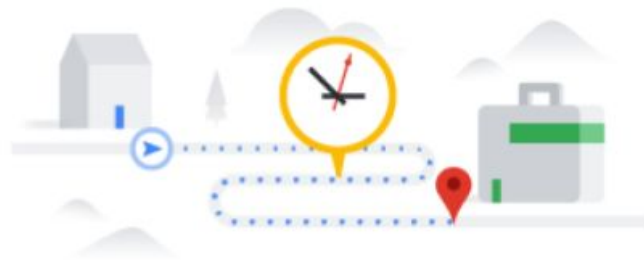


# Intro to Reporting & GAQL

- Introduction to the Google Ads API
- AdWords API vs. Google Ads API
- GoogleAdsService & Search Request Types
- Syntax & Your First API Call
- Constructing Query Strings
- Q&A (URL Above)



**Devin Chasanoff**  
Developer Advocate



Google

<https://youtu.be/XvAkASBnQBo>

Google

# Anatomy of a Request

# API Differences

	AdWords API	Google Ads API
<b>Query Language</b>	AWQL (AdWords Query Language)	GAQL (Google Ads Query Language)
<b>Reports</b>	<p>Pass either of the following with <a href="#">report types</a> to <a href="#">report download endpoint</a>:</p> <ul style="list-style-type: none"> <li>• <i>Selector</i></li> <li>• AWQL</li> </ul>	<p>All data retrieval is unified in the Google Ads API:</p> <ul style="list-style-type: none"> <li>• <code>GoogleAdsService.SearchStream()</code></li> <li>• <code>GoogleAdsService.Search()</code></li> </ul>
<b>Object Retrieval</b>	<ul style="list-style-type: none"> <li>• <i>Selector</i> passed to <code>.get()</code> or</li> <li>• AWQL passed to <code>.query()</code></li> </ul>	



# SearchStream

	SearchStream	
<b>Method Overview</b>	<ul style="list-style-type: none"><li>• Streamed responses</li><li>• <b>Returns selected fields only</b></li></ul>	
<b>Use Cases</b>	<ul style="list-style-type: none"><li>• High throughput, best for large results</li></ul>	
<b>Drawbacks</b>	<ul style="list-style-type: none"><li>• Must re-issue request when interrupted (network issues)</li></ul>	

# Search

	SearchStream	Search
<b>Method Overview</b>	<ul style="list-style-type: none"><li>• Streamed responses</li><li>• <b>Returns selected fields only</b></li></ul>	<ul style="list-style-type: none"><li>• Paged responses</li><li>• <b>Returns selected fields only</b></li><li>• Pages cached</li></ul>
<b>Use Cases</b>	<ul style="list-style-type: none"><li>• High throughput, best for large results</li></ul>	<ul style="list-style-type: none"><li>• Small result sets (number of rows &lt; default page size: 10k)</li><li>• User interfaces utilizing paging</li></ul>
<b>Drawbacks</b>	<ul style="list-style-type: none"><li>• Must re-issue request when interrupted (network issues)</li></ul>	<ul style="list-style-type: none"><li>• Slower; may timeout with large results</li></ul>

# Report Type Mapping

AdWords API	Google Ads API
ACCOUNT_PERFORMANCE_REPORT	customer
AD_PERFORMANCE_REPORT	ad_group_ad
ADGROUP_PERFORMANCE_REPORT	ad_group
AUDIENCE_PERFORMANCE_REPORT	campaign_audience_view, ad_group_audience_view
...	...
SEARCH_QUERY_PERFORMANCE_REPORT	search_term_view
SHARED_SET_REPORT	shared_set
USER_AD_DISTANCE_REPORT	distance_view
VIDEO_PERFORMANCE_REPORT	video

<https://developers.google.com/google-ads/api/docs/migration/mapping>

# Making a Request

# Making a Request

```
$query = <<<GAQL
    SELECT
        campaign.name
    FROM
        campaign
GAQL;

$stream = $googleAdsServiceClient->searchStream(
    $customerId,
    $query
);

foreach ($stream->iterateAllElements() as $row) {
    echo $row->getCampaign();
}
```

# Making a Request

```
$query = <<<GAQL
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        campaign.name
    FROM
        campaign
GAQL;

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PHP

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PHP

AdWords	Google Ads
<code>.get(selector)</code>	<code>.searchStream(GAQL)</code>
<code>.query(AWQL)</code>	<code>.search(GAQL)</code>

# Making a Request

```
$query = <<<GAQL
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    $customerId,
    $query
);

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PHP

AdWords	Google Ads
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# Making a Request

```
SELECT
  campaign.name
FROM
  campaign
```

GAQL

AdWords	Google Ads
<code>.get(selector)</code>	<code>.searchStream(GAQL)</code>
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# Making a Request

```
SELECT
  campaign.name
FROM
  campaign
```

GAQL

AdWords	Google Ads
<code>.get(selector)</code>	<code>.searchStream(GAQL)</code>
<code>.query(AWQL)</code>	<code>.search(GAQL)</code>

# Making a Request

```
SELECT
  campaign.name
FROM
  campaign
```

```
{
  "campaign": {
    "resourceName": ".../campaigns/8765",
    "name": "cruises to mars",
  },
},
{
  "campaign": {
    "resourceName": ".../campaigns/8766",
    "name": "cruises to venus",
  },
},
{
  "campaign": {
    "resourceName": ".../campaigns/8767",
    "name": "trains to pluto",
  },
},
{
  "campaign": {
    "resourceName": ".../campaigns/8768",
    "name": "space bicycle tours",
  },
},
}
```

GAQL

Response

# Making a Request

```
SELECT
  campaign.name
FROM
  campaign
```

```
{
  "campaign": {
    "resourceName": ".../campaigns/8765",
    "name": "cruises to mars",
  },
},
{
  "campaign": {
    "resourceName": ".../campaigns/8766",
    "name": "cruises to venus",
  },
},
{
  "campaign": {
    "resourceName": ".../campaigns/8767",
    "name": "trains to pluto",
  },
},
{
  "campaign": {
    "resourceName": ".../campaigns/8768",
    "name": "space bicycle tours",
  },
},
}
```

GAQL

Response

# Making a Request

```
SELECT
  campaign.name
FROM
  campaign
```

```
{
  "campaign": {
    "resourceName": ".../campaigns/8765",
    "name": "cruises to mars",
  },
},
{
  "campaign": {
    "resourceName": ".../campaigns/8766",
    "name": "cruises to venus",
  },
},
{
  "campaign": {
    "resourceName": ".../campaigns/8767",
    "name": "trains to pluto",
  },
},
{
  "campaign": {
    "resourceName": ".../campaigns/8768",
    "name": "space bicycle tours",
  },
},
}
```

*PHP*

*Response*



# Making a Request

```
SELECT
  campaign.name
FROM
  campaign
```

```
{
  "campaign": {
    "resourceName": ".../campaigns/8765",
    "name": "cruises to mars",
  },
},
{
  "campaign": {
    "resourceName": ".../campaigns/8766",
    "name": "cruises to venus",
  },
},
{
  "campaign": {
    "resourceName": ".../campaigns/8767",
    "name": "trains to pluto",
  },
},
{
  "campaign": {
    "resourceName": ".../campaigns/8768",
    "name": "space bicycle tours",
  },
},
}
```

PHP

Response

# Making a Request

```
SELECT
  campaign.name
FROM
  campaign
```

```
| campaign.resource_name | campaign.name |
|-----|-----|
| customers/1234/campaigns/8765 | cruises to mars |
| customers/1234/campaigns/8766 | cruises to venus |
| customers/1234/campaigns/8767 | trains to pluto |
| customers/1234/campaigns/8768 | space bicycle tours |
```

GAQL

Response

# Making a Request

```
SELECT
  campaign.name
FROM
  campaign
```

```
| campaign
| .name
| -----
| cruises to mars
| cruises to venus
| trains to pluto
| space bicycle tours
```

GAQL

Response

# Making a Request

```
SELECT
  campaign.name,
  ad_group.id
FROM
  ad_group
```

```
| campaign | ad_group |
| .name    | .id      |
|-----|-----|
| cruises to mars | 1 |
| cruises to mars | 2 |
| cruises to venus | 3 |
| trains to pluto  | 4 |
| space bicycle tours | 5 |
```

GAQL

Response

# Making a Request

```
SELECT
  campaign.name,
  ad_group.id
FROM
  ad_group
```

```
| campaign | ad_group |
| .name    | .id      |
|-----|-----|
| cruises to mars | 1 |
| cruises to mars | 2 |
| cruises to venus | 3 |
| trains to pluto  | 4 |
| space bicycle tours | 5 |
```

GAQL

Response

# Making a Request

```
SELECT
  campaign.name,
  ad_group.id
FROM
  ad_group
```

## Attributed Resources

- Resources included in SELECT
- Different from main resource
- Implicit join to FROM resource
- Availability determined by resource in FROM

# Making a Request

```
SELECT
  campaign.name,
  ad_group.id,
  ad_group_ad.ad.id
FROM
  ad_group_ad
```

campaign .name	ad_group .id	ad_group_ad .ad.id
-----	-----	-----
cruises to mars	1	a
cruises to mars	1	b
cruises to mars	1	c
cruises to mars	2	f
cruises to venus	3	g
trains to pluto	4	h
trains to pluto	4	i
space bicycle tours	5	j

GAQL

Response

# Making a Request

```
SELECT
  campaign.name,
  ad_group.id,
  ad_group_ad.ad.id
FROM
  ad_group_ad
```

```
{
  "campaign": {
    "resourceName": ".../campaigns/8765",
    "name": "cruises to mars",
  },
  "adGroup": {
    "resourceName": ".../adGroup/1",
    "id": 1,
  },
  "adGroupAd": {
    "resourceName": ".../adGroupAds/1~a",
    "ad": {
      "resourceName": ".../ads/a",
      "id": "a",
    }
  }
}
```

GAQL

Response



# Making a Request

```
SELECT
  campaign.name,
  ad_group.id,
  ad_group_ad.ad.id
FROM
  ad_group_ad
```

```
{
  "campaign": {
    "resourceName": ".../campaigns/8765",
    "name": "cruises to mars",
  },
  "adGroup": {
    "resourceName": ".../adGroup/1",
    "id": 1,
  },
  "adGroupAd": {
    "resourceName": ".../adGroupAds/1~a",
    "ad": {
      "resourceName": ".../ads/a",
      "id": "a",
    }
  }
},
{
  "campaign": {
    "resourceName": ".../campaigns/8765",
    "name": "cruises to mars",
  },
  "adGroup": {
    "resourceName": ".../adGroup/1",
    "id": 1,
  },
  ...
}
```

GAQL

Response

# Making a Request

```
SELECT
  campaign.name,
  ad_group.id,
  ad_group_ad.ad.id
FROM
  ad_group_ad
```

campaign .name	ad_group .id	ad_group_ad .ad.id
-----	-----	-----
cruises to mars	1	a
cruises to mars	1	b
cruises to mars	1	c
cruises to mars	2	f
cruises to venus	3	g
trains to pluto	4	h
trains to pluto	4	i
space bicycle tours	5	j

GAQL

Response

# Making a Request

```
SELECT
  campaign.name,
  ad_group.id,
  ad_group_ad.ad.id,
  metrics.clicks
FROM
  ad_group_ad
```

```
| campaign | ad_group | ad_group_ad |
| .name    | .id      | .ad.id      |
|-----|-----|-----|
| cruises to mars | 1 | a |
| cruises to mars | 1 | b |
| cruises to mars | 1 | c |
| cruises to mars | 2 | f |
| cruises to venus | 3 | g |
| trains to pluto  | 4 | h |
| trains to pluto  | 4 | i |
| space bicycle tours | 5 | j |
```

GAQL

Response

# Making a Request

```
SELECT
  campaign.name,
  ad_group.id,
  ad_group_ad.ad.id,
  metrics.clicks
FROM
  ad_group_ad
```

## Metrics

- Add to SELECT
- Implicitly joined on main resource
- Map roughly to fields in AdWords Reports

# Making a Request

```
SELECT
  campaign.name,
  ad_group.id,
  ad_group_ad.ad.id,
  metrics.clicks
FROM
  ad_group_ad
WHERE
  campaign.name NOT IN (
    "neptune olympics",
    "ursa minor magic shows"
  )
```

# Making a Request

```
SELECT
  campaign.name,
  ad_group.id,
  ad_group_ad.ad.id,
  metrics.clicks
FROM
  ad_group_ad
WHERE
  campaign.name NOT IN (
    "neptune olympics",
    "ursa minor magic shows"
  )
```

## WHERE Clause

- Complex predicates formed by boolean [expressions](#)
- Expressions are a field, operator, and operand
- !=, ==, IN, NOT IN  
([Full list](#))
- Expression chained with AND
- SQL-like

# Making a Request

```
SELECT
  campaign.name,
  ad_group.id,
  ad_group_ad.ad.id,
  metrics.clicks
FROM
  ad_group_ad
WHERE
  campaign.name NOT IN (
    "neptune olympics",
    "ursa minor magic shows"
  )
```

# Making a Request

```
SELECT
  campaign.name,
  ad_group.id,
  ad_group_ad.ad.id,
  metrics.clicks,
  segments.device
FROM
  ad_group_ad
WHERE
  campaign.name NOT IN (
    "neptune olympics",
    "ursa minor magic shows"
  )
```



# Making a Request

```
SELECT
  campaign.name,
  ad_group.id,
  ad_group_ad.ad.id,
  metrics.clicks,
  segments.device
FROM
  ad_group_ad
WHERE
  campaign.name NOT IN (
    "neptune olympics",
    "ursa minor magic shows"
  )
```

## Segments

- Like GROUP BY, but expands to more rows
  - One row for every combo of main resource and segment values
- Segmentation applies to main resource in FROM
- Queries can include several different segments
  - But not all compatible with all others
- Some resources can also be segmented by other resources

# Making a Request

```

SELECT
  campaign.name,
  ad_group.id,
  ad_group_ad.ad.id,
  metrics.clicks,
  segments.device
FROM
  ad_group_ad
WHERE
  campaign.name NOT IN (
    "neptune olympics",
    "ursa minor magic shows"
  )

```

campaign .name	ad_group .id	ad_group_ad .ad.id	metrics .clicks	segments .device
cruises to mars	1	a	1	MOBILE
cruises to mars	1	a	1	DESKTOP
cruises to mars	1	a	3	TABLET
cruises to mars	1	b	3	MOBILE
cruises to mars	1	b	1	DESKTOP
cruises to mars	1	b	1	TABLET
cruises to mars	1	c	8	MOBILE
cruises to mars	1	c	1	DESKTOP
cruises to mars	1	c	0	TABLET
cruises to mars	2	f	0	MOBILE
cruises to mars	2	f	1	DESKTOP
cruises to mars	2	f	1	TABLET
cruises to venus	3	g	0	MOBILE
cruises to venus	3	g	1	DESKTOP
cruises to venus	3	g	3	TABLET
trains to pluto	4	h	1	MOBILE
trains to pluto	4	h	1	DESKTOP
trains to pluto	4	h	9	TABLET
trains to pluto	4	i	6	MOBILE
trains to pluto	4	i	0	DESKTOP
trains to pluto	4	i	8	TABLET
space bicycle tours	5	j	7	MOBILE
space bicycle tours	5	j	2	DESKTOP

GAQL

Response

# Understanding GoogleAdsRow

# GoogleAdsRow

```
| campaign | ad group | ad group ad | metrics | segments |  
| ----- | ----- | ----- | ----- | ----- |
```

*Campaigns*

*Ad Groups*

*Ads*

*Metrics &  
Segments*

*Resources*

*Response*

# GoogleAdsRow



*Campaigns*

*Ad Groups*

*Ads*

*Metrics &  
Segments*

campaign .name	ad_group .id	ad_group_ad .ad.id	metrics .clicks	segments .device
-----	-----	-----	-----	-----
cruises to mars				
cruises to venus				
trains to pluto				
space bicycle tours				

*Resources*

*Response*

# GoogleAdsRow



*Ads*

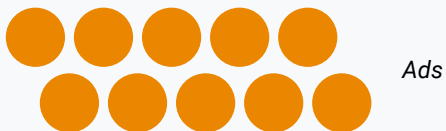
*Metrics &  
Segments*

campaign .name	ad_group .id	ad_group_ad .ad.id	metrics .clicks	segments .device
-----	-----	-----	-----	-----
cruises to mars	1			
cruises to mars	2			
cruises to venus	3			
trains to pluto	4			
space bicycle tours	5			

*Resources*

*Response*

# GoogleAdsRow



*Metrics &  
Segments*

campaign .name	ad_group .id	ad_group_ad .ad.id	metrics .clicks	segments .device
-----	-----	-----	-----	-----
cruises to mars	1	a		
cruises to mars	1	b		
cruises to mars	1	c		
cruises to mars	2	f		
cruises to venus	3	g		
trains to pluto	4	h		
trains to pluto	4	i		
space bicycle tours	5	j		

*Resources*

*Response*

# GoogleAdsRow



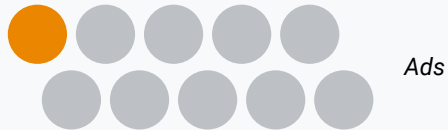
Resources

campaign .name	ad_group .id	ad_group_ad .ad.id	metrics .clicks	segments .device
cruises to mars	1	a	1	MOBILE
cruises to mars	1	a	1	DESKTOP
cruises to mars	1	a	3	TABLET
cruises to mars	1	b	3	MOBILE
cruises to mars	1	b	1	DESKTOP
cruises to mars	1	b	1	TABLET
cruises to mars	1	c	8	MOBILE
cruises to mars	1	c	1	DESKTOP
cruises to mars	1	c	0	TABLET
cruises to mars	2	f	0	MOBILE
cruises to mars	2	f	1	DESKTOP
cruises to mars	2	f	1	TABLET
cruises to venus	3	g	0	MOBILE
cruises to venus	3	g	1	DESKTOP
cruises to venus	3	g	3	TABLET
trains to pluto	4	h	1	MOBILE
trains to pluto	4	h	1	DESKTOP
trains to pluto	4	h	9	TABLET
trains to pluto	4	i	6	MOBILE
trains to pluto	4	i	0	DESKTOP
trains to pluto	4	i	8	TABLET
space bicycle tours	5	j	7	MOBILE
space bicycle tours	5	j	2	DESKTOP

Response



# GoogleAdsRow

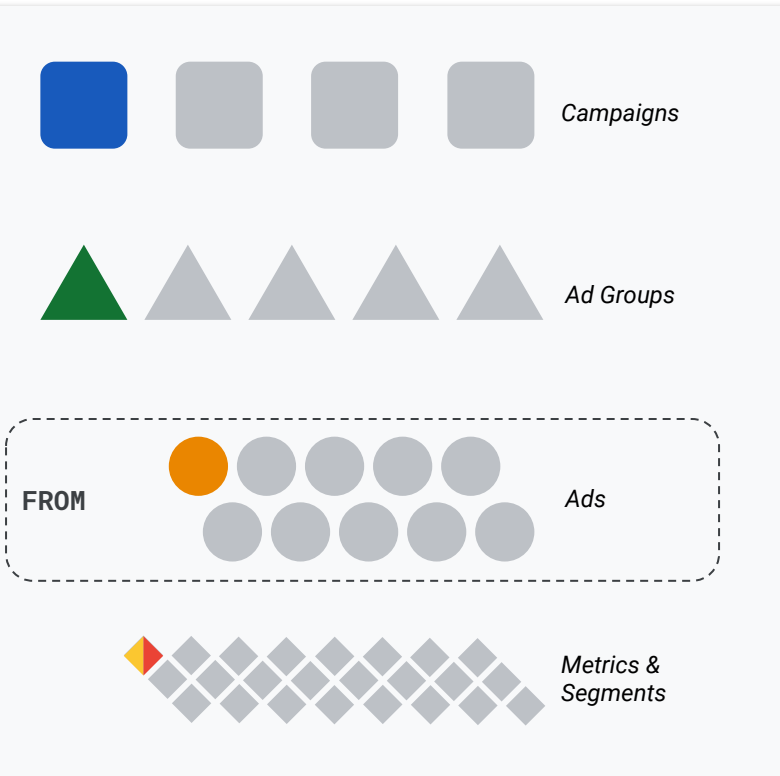


campaign .name	ad_group .id	ad_group_ad .ad.id	metrics .clicks	segments .device
<b>cruises to mars</b>	<b>1</b>	<b>a</b>	<b>1</b>	<b>MOBILE</b>
cruises to mars	1	a	1	DESKTOP
cruises to mars	1	a	3	TABLET
cruises to mars	1	b	3	MOBILE
cruises to mars	1	b	1	DESKTOP
cruises to mars	1	b	1	TABLET
cruises to mars	1	c	8	MOBILE
cruises to mars	1	c	1	DESKTOP
cruises to mars	1	c	0	TABLET
cruises to mars	2	f	0	MOBILE
cruises to mars	2	f	1	DESKTOP
cruises to mars	2	f	1	TABLET
cruises to venus	3	g	0	MOBILE
cruises to venus	3	g	1	DESKTOP
cruises to venus	3	g	3	TABLET
trains to pluto	4	h	1	MOBILE
trains to pluto	4	h	1	DESKTOP
trains to pluto	4	h	9	TABLET
trains to pluto	4	i	6	MOBILE
trains to pluto	4	i	0	DESKTOP
trains to pluto	4	i	8	TABLET
space bicycle tours	5	j	7	MOBILE
space bicycle tours	5	j	2	DESKTOP

Resources

Response

# GoogleAdsRow

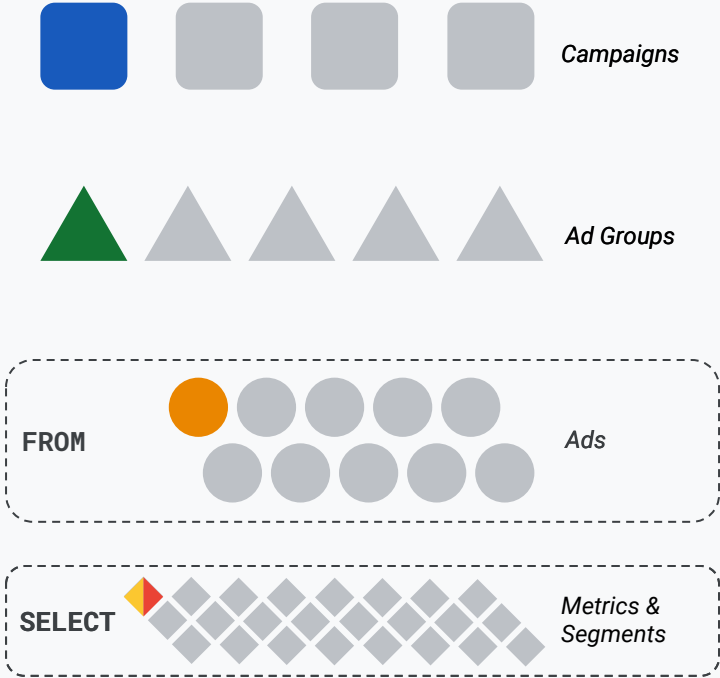


Resources

campaign .name	ad_group .id	ad_group_ad .ad.id	metrics .clicks	segments .device
cruises to mars	1	a	1	MOBILE
cruises to mars	1	a	1	DESKTOP
cruises to mars	1	a	3	TABLET
cruises to mars	1	b	3	MOBILE
cruises to mars	1	b	1	DESKTOP
cruises to mars	1	b	1	TABLET
cruises to mars	1	c	8	MOBILE
cruises to mars	1	c	1	DESKTOP
cruises to mars	1	c	0	TABLET
cruises to mars	2	f	0	MOBILE
cruises to mars	2	f	1	DESKTOP
cruises to mars	2	f	1	TABLET
cruises to venus	3	g	0	MOBILE
cruises to venus	3	g	1	DESKTOP
cruises to venus	3	g	3	TABLET
trains to pluto	4	h	1	MOBILE
trains to pluto	4	h	1	DESKTOP
trains to pluto	4	h	9	TABLET
trains to pluto	4	i	6	MOBILE
trains to pluto	4	i	0	DESKTOP
trains to pluto	4	i	8	TABLET
space bicycle tours	5	j	7	MOBILE
space bicycle tours	5	j	2	DESKTOP

Response

# GoogleAdsRow

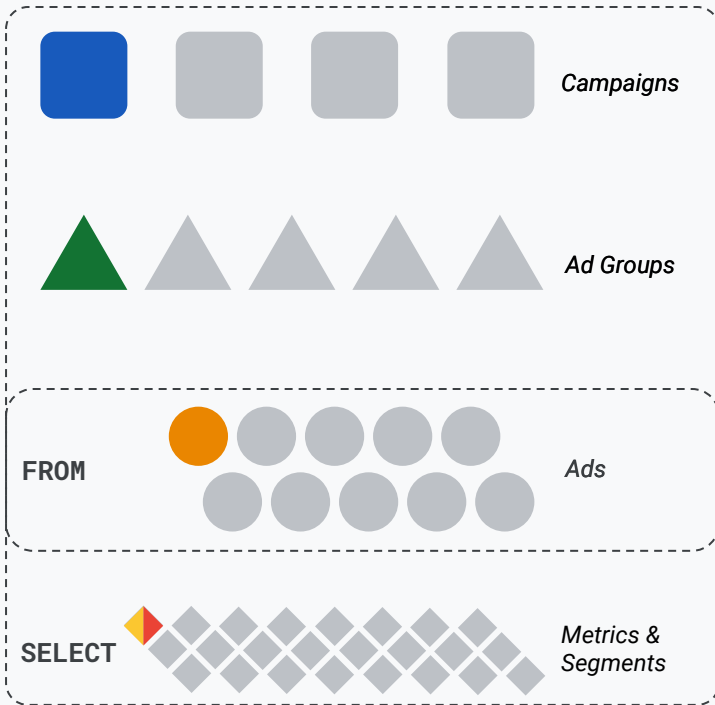


campaign .name	ad_group .id	ad_group_ad .ad.id	metrics .clicks	segments .device
cruises to mars	1	a	1	MOBILE
cruises to mars	1	a	1	DESKTOP
cruises to mars	1	a	3	TABLET
cruises to mars	1	b	3	MOBILE
cruises to mars	1	b	1	DESKTOP
cruises to mars	1	b	1	TABLET
cruises to mars	1	c	8	MOBILE
cruises to mars	1	c	1	DESKTOP
cruises to mars	1	c	0	TABLET
cruises to mars	2	f	0	MOBILE
cruises to mars	2	f	1	DESKTOP
cruises to mars	2	f	1	TABLET
cruises to venus	3	g	0	MOBILE
cruises to venus	3	g	1	DESKTOP
cruises to venus	3	g	3	TABLET
trains to pluto	4	h	1	MOBILE
trains to pluto	4	h	1	DESKTOP
trains to pluto	4	h	9	TABLET
trains to pluto	4	i	6	MOBILE
trains to pluto	4	i	0	DESKTOP
trains to pluto	4	i	8	TABLET
space bicycle tours	5	j	7	MOBILE
space bicycle tours	5	j	2	DESKTOP

Resources

Response

# GoogleAdsRow

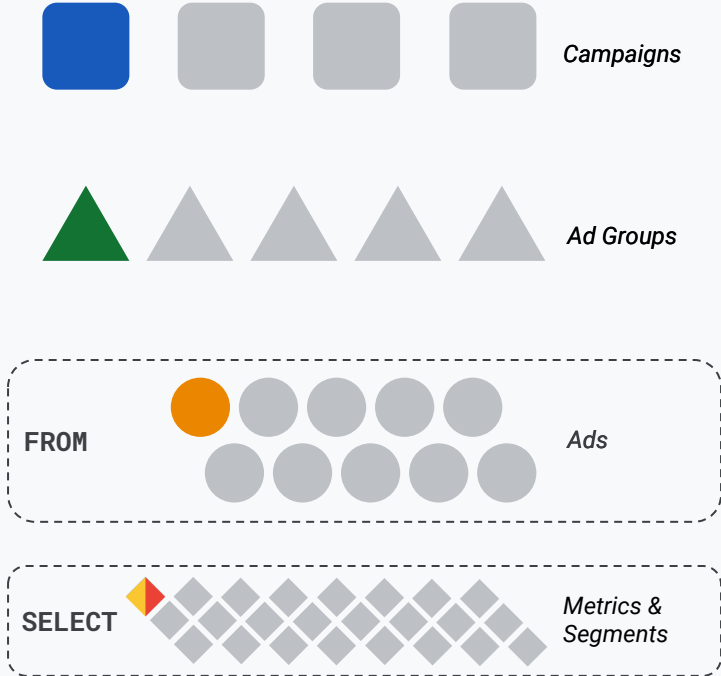


Resources

campaign .name	ad_group .id	ad_group_ad .ad.id	metrics .clicks	segments .device
cruises to mars	1	a	1	MOBILE
cruises to mars	1	a	1	DESKTOP
cruises to mars	1	a	3	TABLET
cruises to mars	1	b	3	MOBILE
cruises to mars	1	b	1	DESKTOP
cruises to mars	1	b	1	TABLET
cruises to mars	1	c	8	MOBILE
cruises to mars	1	c	1	DESKTOP
cruises to mars	1	c	0	TABLET
cruises to mars	2	f	0	MOBILE
cruises to mars	2	f	1	DESKTOP
cruises to mars	2	f	1	TABLET
cruises to venus	3	g	0	MOBILE
cruises to venus	3	g	1	DESKTOP
cruises to venus	3	g	3	TABLET
trains to pluto	4	h	1	MOBILE
trains to pluto	4	h	1	DESKTOP
trains to pluto	4	h	9	TABLET
trains to pluto	4	i	6	MOBILE
trains to pluto	4	i	0	DESKTOP
trains to pluto	4	i	8	TABLET
space bicycle tours	5	j	7	MOBILE
space bicycle tours	5	j	2	DESKTOP

Response

# GoogleAdsRow

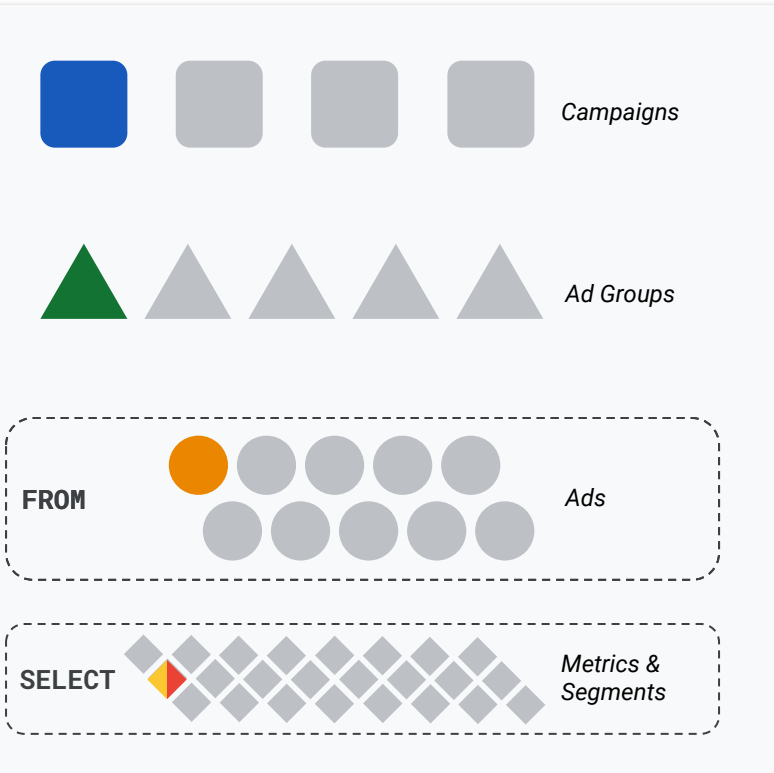


campaign .name	ad_group .id	ad_group_ad .ad.id	metrics .clicks	segments .device
cruises to mars	1	a	1	MOBILE
cruises to mars	1	a	1	DESKTOP
cruises to mars	1	a	3	TABLET
cruises to mars	1	b	3	MOBILE
cruises to mars	1	b	1	DESKTOP
cruises to mars	1	b	1	TABLET
cruises to mars	1	c	8	MOBILE
cruises to mars	1	c	1	DESKTOP
cruises to mars	1	c	0	TABLET
cruises to mars	2	f	0	MOBILE
cruises to mars	2	f	1	DESKTOP
cruises to mars	2	f	1	TABLET
cruises to venus	3	g	0	MOBILE
cruises to venus	3	g	1	DESKTOP
cruises to venus	3	g	3	TABLET
trains to pluto	4	h	1	MOBILE
trains to pluto	4	h	1	DESKTOP
trains to pluto	4	h	9	TABLET
trains to pluto	4	i	6	MOBILE
trains to pluto	4	i	0	DESKTOP
trains to pluto	4	i	8	TABLET
space bicycle tours	5	j	7	MOBILE
space bicycle tours	5	j	2	DESKTOP

Resources

Response

# GoogleAdsRow

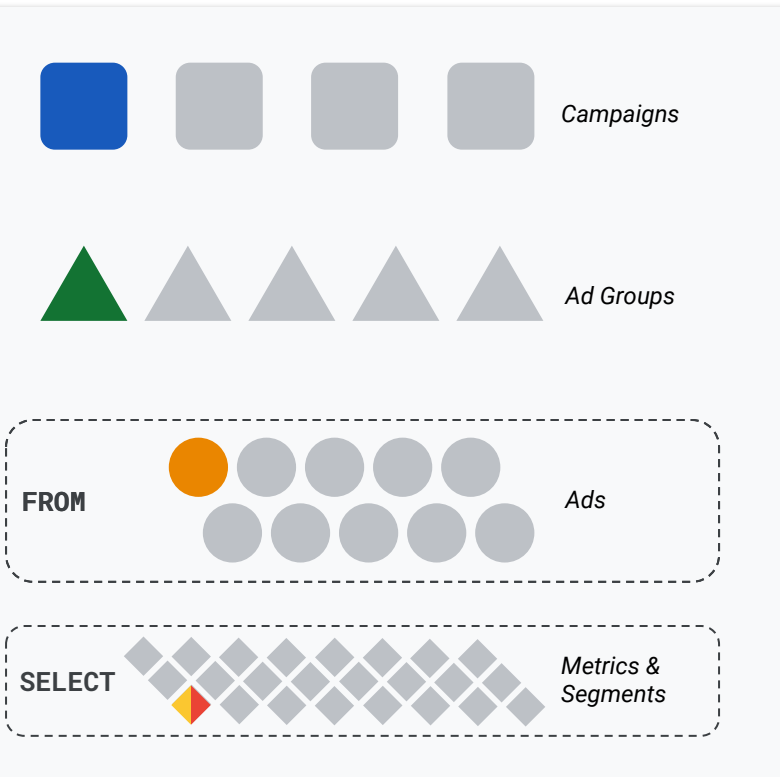


campaign .name	ad_group .id	ad_group_ad .ad.id	metrics .clicks	segments .device
cruises to mars	1	a	1	MOBILE
<b>cruises to mars</b>	<b>1</b>	<b>a</b>	<b>1</b>	<b>DESKTOP</b>
cruises to mars	1	a	3	TABLET
cruises to mars	1	b	3	MOBILE
cruises to mars	1	b	1	DESKTOP
cruises to mars	1	b	1	TABLET
cruises to mars	1	c	8	MOBILE
cruises to mars	1	c	1	DESKTOP
cruises to mars	1	c	0	TABLET
cruises to mars	2	f	0	MOBILE
cruises to mars	2	f	1	DESKTOP
cruises to mars	2	f	1	TABLET
cruises to venus	3	g	0	MOBILE
cruises to venus	3	g	1	DESKTOP
cruises to venus	3	g	3	TABLET
trains to pluto	4	h	1	MOBILE
trains to pluto	4	h	1	DESKTOP
trains to pluto	4	h	9	TABLET
trains to pluto	4	i	6	MOBILE
trains to pluto	4	i	0	DESKTOP
trains to pluto	4	i	8	TABLET
space bicycle tours	5	j	7	MOBILE
space bicycle tours	5	j	2	DESKTOP

Resources

Response

# GoogleAdsRow

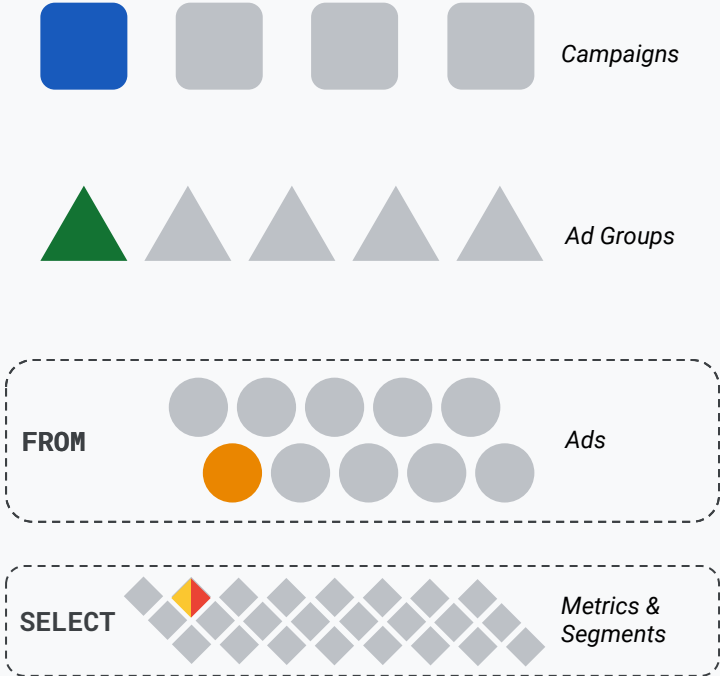


Resources

campaign .name	ad_group .id	ad_group_ad .ad.id	metrics .clicks	segments .device
cruises to mars	1	a	1	MOBILE
cruises to mars	1	a	1	DESKTOP
<b>cruises to mars</b>	<b>1</b>	<b>a</b>	<b>3</b>	<b>TABLET</b>
cruises to mars	1	b	3	MOBILE
cruises to mars	1	b	1	DESKTOP
cruises to mars	1	b	1	TABLET
cruises to mars	1	c	8	MOBILE
cruises to mars	1	c	1	DESKTOP
cruises to mars	1	c	0	TABLET
cruises to mars	2	f	0	MOBILE
cruises to mars	2	f	1	DESKTOP
cruises to mars	2	f	1	TABLET
cruises to venus	3	g	0	MOBILE
cruises to venus	3	g	1	DESKTOP
cruises to venus	3	g	3	TABLET
trains to pluto	4	h	1	MOBILE
trains to pluto	4	h	1	DESKTOP
trains to pluto	4	h	9	TABLET
trains to pluto	4	i	6	MOBILE
trains to pluto	4	i	0	DESKTOP
trains to pluto	4	i	8	TABLET
space bicycle tours	5	j	7	MOBILE
space bicycle tours	5	j	2	DESKTOP

Response

# GoogleAdsRow



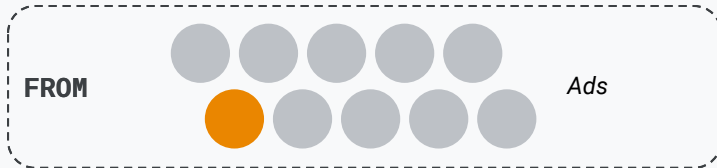
campaign .name	ad_group .id	ad_group_ad .ad.id	metrics .clicks	segments .device
cruses to mars	1	a	1	MOBILE
cruses to mars	1	a	1	DESKTOP
cruses to mars	1	a	3	TABLET
<b>cruses to mars</b>	<b>1</b>	<b>b</b>	<b>3</b>	<b>MOBILE</b>
cruses to mars	1	b	1	DESKTOP
cruses to mars	1	b	1	TABLET
cruses to mars	1	c	8	MOBILE
cruses to mars	1	c	1	DESKTOP
cruses to mars	1	c	0	TABLET
cruses to mars	2	f	0	MOBILE
cruses to mars	2	f	1	DESKTOP
cruses to mars	2	f	1	TABLET
cruses to venus	3	g	0	MOBILE
cruses to venus	3	g	1	DESKTOP
cruses to venus	3	g	3	TABLET
trains to pluto	4	h	1	MOBILE
trains to pluto	4	h	1	DESKTOP
trains to pluto	4	h	9	TABLET
trains to pluto	4	i	6	MOBILE
trains to pluto	4	i	0	DESKTOP
trains to pluto	4	i	8	TABLET
space bicycle tours	5	j	7	MOBILE
space bicycle tours	5	j	2	DESKTOP

Resources

Response



# GoogleAdsRow

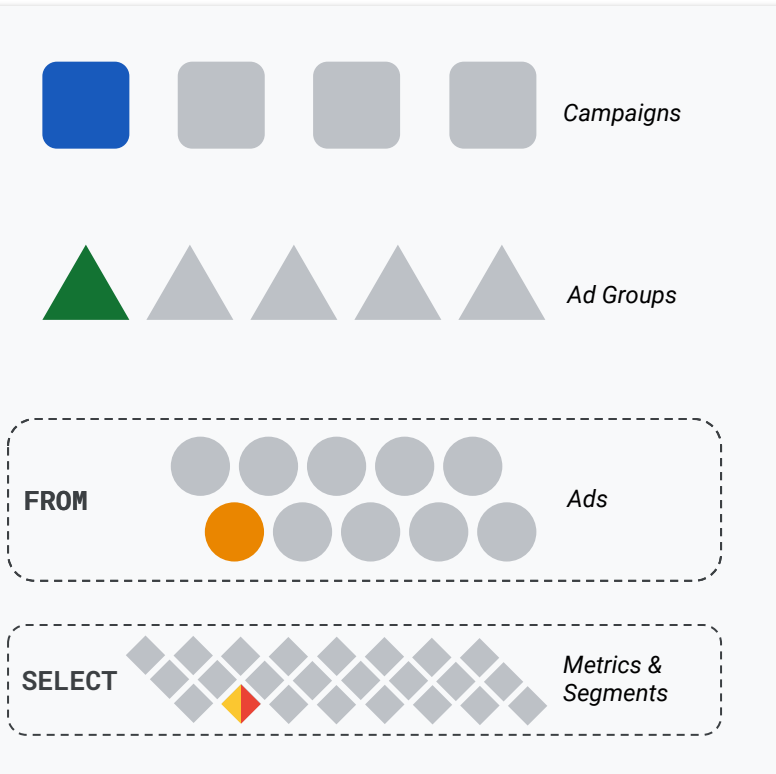


campaign .name	ad_group .id	ad_group_ad .ad.id	metrics .clicks	segments .device
cruises to mars	1	a	1	MOBILE
cruises to mars	1	a	1	DESKTOP
cruises to mars	1	a	3	TABLET
cruises to mars	1	b	3	MOBILE
<b>cruises to mars</b>	<b>1</b>	<b>b</b>	<b>1</b>	<b>DESKTOP</b>
cruises to mars	1	b	1	TABLET
cruises to mars	1	c	8	MOBILE
cruises to mars	1	c	1	DESKTOP
cruises to mars	1	c	0	TABLET
cruises to mars	2	f	0	MOBILE
cruises to mars	2	f	1	DESKTOP
cruises to mars	2	f	1	TABLET
cruises to venus	3	g	0	MOBILE
cruises to venus	3	g	1	DESKTOP
cruises to venus	3	g	3	TABLET
trains to pluto	4	h	1	MOBILE
trains to pluto	4	h	1	DESKTOP
trains to pluto	4	h	9	TABLET
trains to pluto	4	i	6	MOBILE
trains to pluto	4	i	0	DESKTOP
trains to pluto	4	i	8	TABLET
space bicycle tours	5	j	7	MOBILE
space bicycle tours	5	j	2	DESKTOP

Resources

Response

# GoogleAdsRow

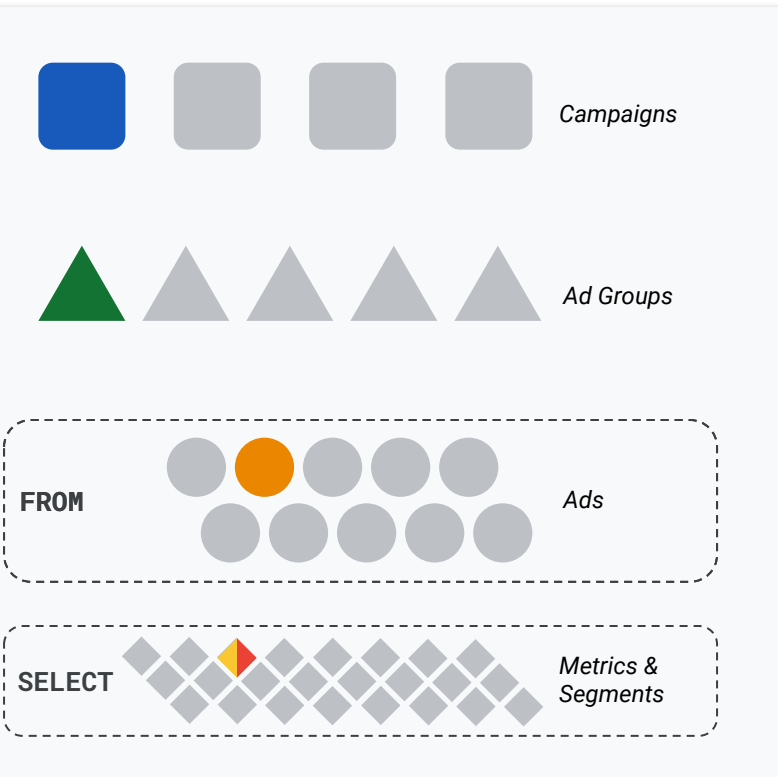


campaign .name	ad_group .id	ad_group_ad .ad.id	metrics .clicks	segments .device
cruises to mars	1	a	1	MOBILE
cruises to mars	1	a	1	DESKTOP
cruises to mars	1	a	3	TABLET
cruises to mars	1	b	3	MOBILE
cruises to mars	1	b	1	DESKTOP
<b>cruises to mars</b>	<b>1</b>	<b>b</b>	<b>1</b>	<b>TABLET</b>
cruises to mars	1	c	8	MOBILE
cruises to mars	1	c	1	DESKTOP
cruises to mars	1	c	0	TABLET
cruises to mars	2	f	0	MOBILE
cruises to mars	2	f	1	DESKTOP
cruises to mars	2	f	1	TABLET
cruises to venus	3	g	0	MOBILE
cruises to venus	3	g	1	DESKTOP
cruises to venus	3	g	3	TABLET
trains to pluto	4	h	1	MOBILE
trains to pluto	4	h	1	DESKTOP
trains to pluto	4	h	9	TABLET
trains to pluto	4	i	6	MOBILE
trains to pluto	4	i	0	DESKTOP
trains to pluto	4	i	8	TABLET
space bicycle tours	5	j	7	MOBILE
space bicycle tours	5	j	2	DESKTOP

Resources

Response

# GoogleAdsRow

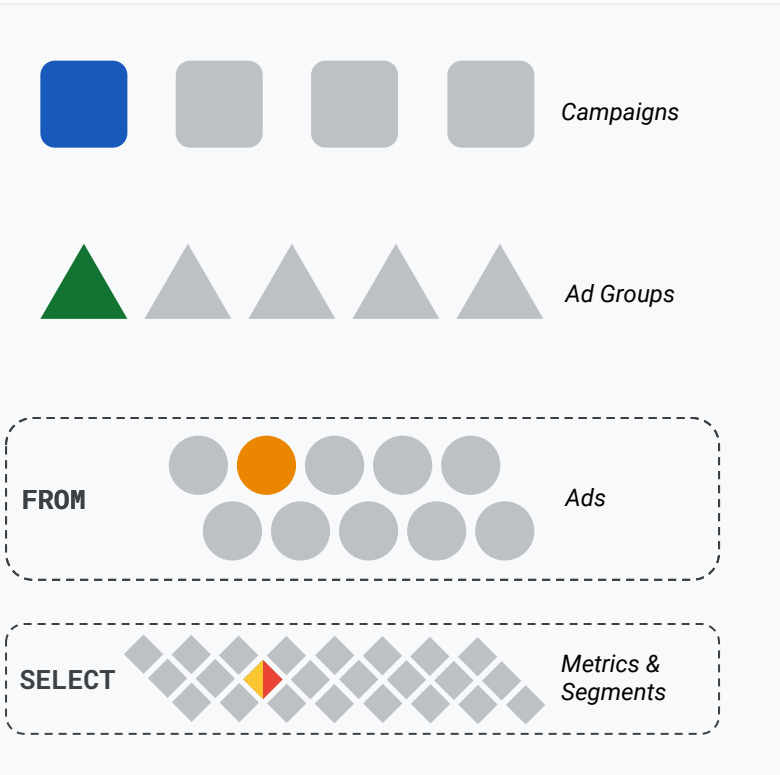


Resources

campaign .name	ad_group .id	ad_group_ad .ad.id	metrics .clicks	segments .device
cruises to mars	1	a	1	MOBILE
cruises to mars	1	a	1	DESKTOP
cruises to mars	1	a	3	TABLET
cruises to mars	1	b	3	MOBILE
cruises to mars	1	b	1	DESKTOP
cruises to mars	1	b	1	TABLET
<b>cruises to mars</b>	<b>1</b>	<b>c</b>	<b>8</b>	<b>MOBILE</b>
cruises to mars	1	c	1	DESKTOP
cruises to mars	1	c	0	TABLET
cruises to mars	2	f	0	MOBILE
cruises to mars	2	f	1	DESKTOP
cruises to mars	2	f	1	TABLET
cruises to venus	3	g	0	MOBILE
cruises to venus	3	g	1	DESKTOP
cruises to venus	3	g	3	TABLET
trains to pluto	4	h	1	MOBILE
trains to pluto	4	h	1	DESKTOP
trains to pluto	4	h	9	TABLET
trains to pluto	4	i	6	MOBILE
trains to pluto	4	i	0	DESKTOP
trains to pluto	4	i	8	TABLET
space bicycle tours	5	j	7	MOBILE
space bicycle tours	5	j	2	DESKTOP

Response

# GoogleAdsRow

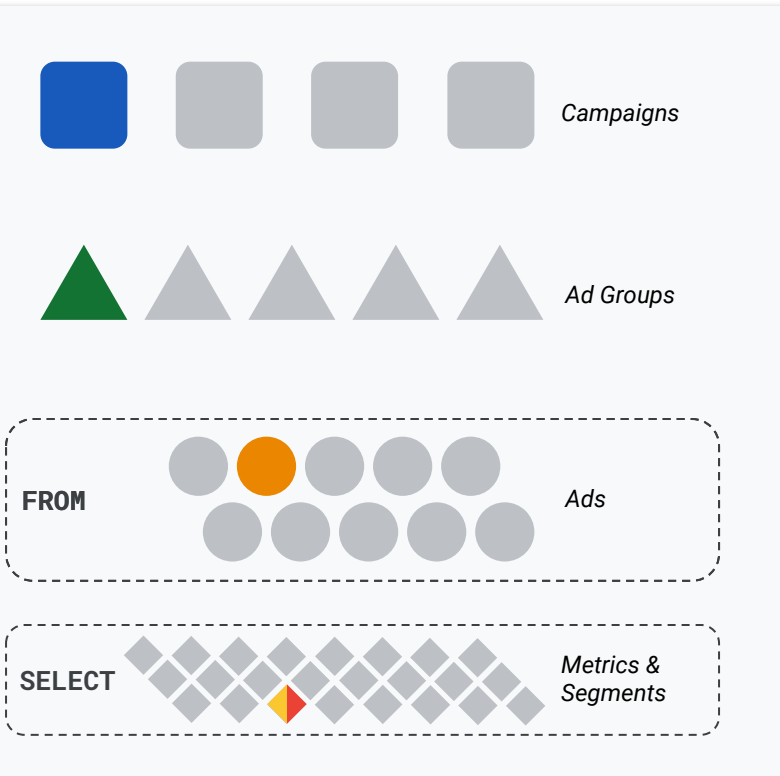


Resources

campaign .name	ad_group .id	ad_group_ad .ad.id	metrics .clicks	segments .device
cruises to mars	1	a	1	MOBILE
cruises to mars	1	a	1	DESKTOP
cruises to mars	1	a	3	TABLET
cruises to mars	1	b	3	MOBILE
cruises to mars	1	b	1	DESKTOP
cruises to mars	1	b	1	TABLET
cruises to mars	1	c	8	MOBILE
cruises to mars	1	c	1	DESKTOP
cruises to mars	1	c	0	TABLET
cruises to mars	2	f	0	MOBILE
cruises to mars	2	f	1	DESKTOP
cruises to mars	2	f	1	TABLET
cruises to venus	3	g	0	MOBILE
cruises to venus	3	g	1	DESKTOP
cruises to venus	3	g	3	TABLET
trains to pluto	4	h	1	MOBILE
trains to pluto	4	h	1	DESKTOP
trains to pluto	4	h	9	TABLET
trains to pluto	4	i	6	MOBILE
trains to pluto	4	i	0	DESKTOP
trains to pluto	4	i	8	TABLET
space bicycle tours	5	j	7	MOBILE
space bicycle tours	5	j	2	DESKTOP

Response

# GoogleAdsRow

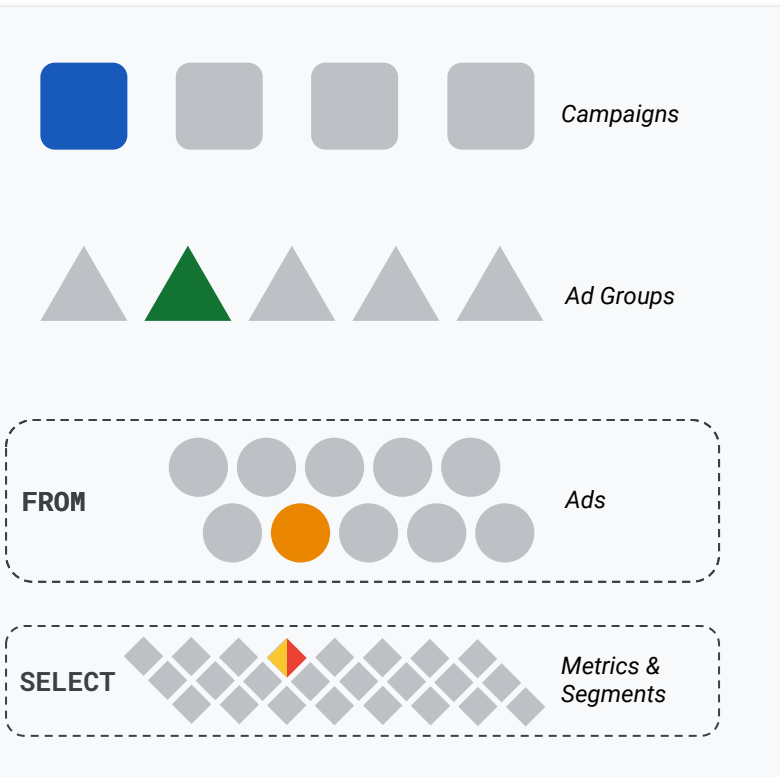


Resources

campaign .name	ad_group .id	ad_group_ad .ad.id	metrics .clicks	segments .device
cruises to mars	1	a	1	MOBILE
cruises to mars	1	a	1	DESKTOP
cruises to mars	1	a	3	TABLET
cruises to mars	1	b	3	MOBILE
cruises to mars	1	b	1	DESKTOP
cruises to mars	1	b	1	TABLET
cruises to mars	1	c	8	MOBILE
cruises to mars	1	c	1	DESKTOP
cruises to mars	1	c	0	TABLET
cruises to mars	2	f	0	MOBILE
cruises to mars	2	f	1	DESKTOP
cruises to mars	2	f	1	TABLET
cruises to venus	3	g	0	MOBILE
cruises to venus	3	g	1	DESKTOP
cruises to venus	3	g	3	TABLET
trains to pluto	4	h	1	MOBILE
trains to pluto	4	h	1	DESKTOP
trains to pluto	4	h	9	TABLET
trains to pluto	4	i	6	MOBILE
trains to pluto	4	i	0	DESKTOP
trains to pluto	4	i	8	TABLET
space bicycle tours	5	j	7	MOBILE
space bicycle tours	5	j	2	DESKTOP

Response

# GoogleAdsRow

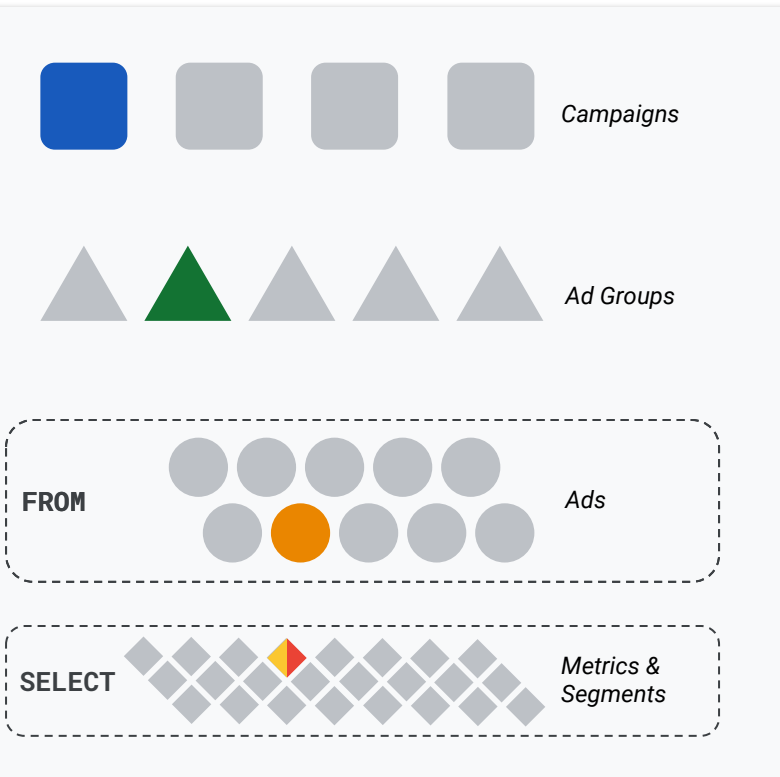


Resources

campaign .name	ad_group .id	ad_group_ad .ad.id	metrics .clicks	segments .device
cruises to mars	1	a	1	MOBILE
cruises to mars	1	a	1	DESKTOP
cruises to mars	1	a	3	TABLET
cruises to mars	1	b	3	MOBILE
cruises to mars	1	b	1	DESKTOP
cruises to mars	1	b	1	TABLET
cruises to mars	1	c	8	MOBILE
cruises to mars	1	c	1	DESKTOP
<b>cruises to mars</b>	<b>1</b>	<b>c</b>	<b>0</b>	<b>TABLET</b>
cruises to mars	2	f	0	MOBILE
cruises to mars	2	f	1	DESKTOP
cruises to mars	2	f	1	TABLET
cruises to venus	3	g	0	MOBILE
cruises to venus	3	g	1	DESKTOP
cruises to venus	3	g	3	TABLET
trains to pluto	4	h	1	MOBILE
trains to pluto	4	h	1	DESKTOP
trains to pluto	4	h	9	TABLET
trains to pluto	4	i	6	MOBILE
trains to pluto	4	i	0	DESKTOP
trains to pluto	4	i	8	TABLET
space bicycle tours	5	j	7	MOBILE
space bicycle tours	5	j	2	DESKTOP

Response

# GoogleAdsRow

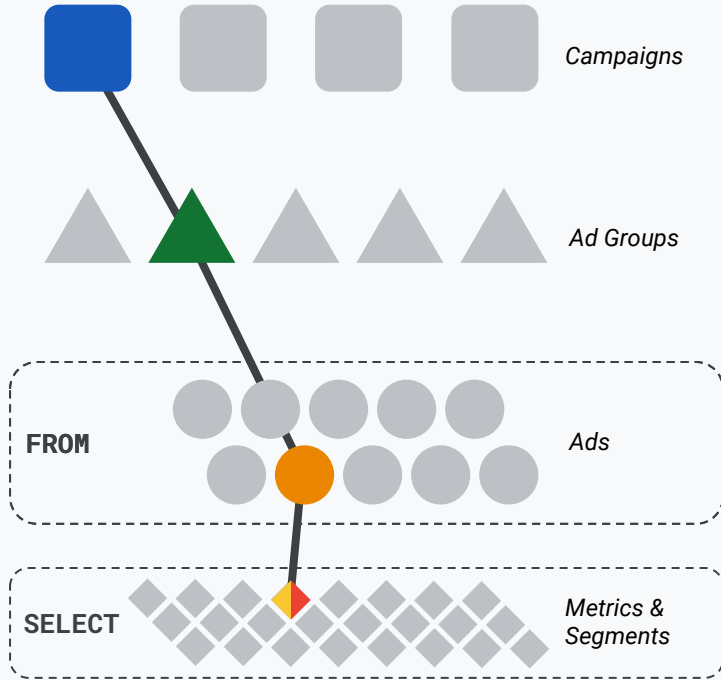


Resources

campaign .name	ad_group .id	ad_group_ad .ad.id	metrics .clicks	segments .device
cruises to mars	1	a	1	MOBILE
cruises to mars	1	a	1	DESKTOP
cruises to mars	1	a	3	TABLET
cruises to mars	1	b	3	MOBILE
cruises to mars	1	b	1	DESKTOP
cruises to mars	1	b	1	TABLET
cruises to mars	1	c	8	MOBILE
cruises to mars	1	c	1	DESKTOP
<b>cruises to mars</b>	<b>1</b>	<b>c</b>	<b>0</b>	<b>TABLET</b>
cruises to mars	2	f	0	MOBILE
cruises to mars	2	f	1	DESKTOP
cruises to mars	2	f	1	TABLET
cruises to venus	3	g	0	MOBILE
cruises to venus	3	g	1	DESKTOP
cruises to venus	3	g	3	TABLET
trains to pluto	4	h	1	MOBILE
trains to pluto	4	h	1	DESKTOP
trains to pluto	4	h	9	TABLET
trains to pluto	4	i	6	MOBILE
trains to pluto	4	i	0	DESKTOP
trains to pluto	4	i	8	TABLET
space bicycle tours	5	j	7	MOBILE
space bicycle tours	5	j	2	DESKTOP

Response

# GoogleAdsRow



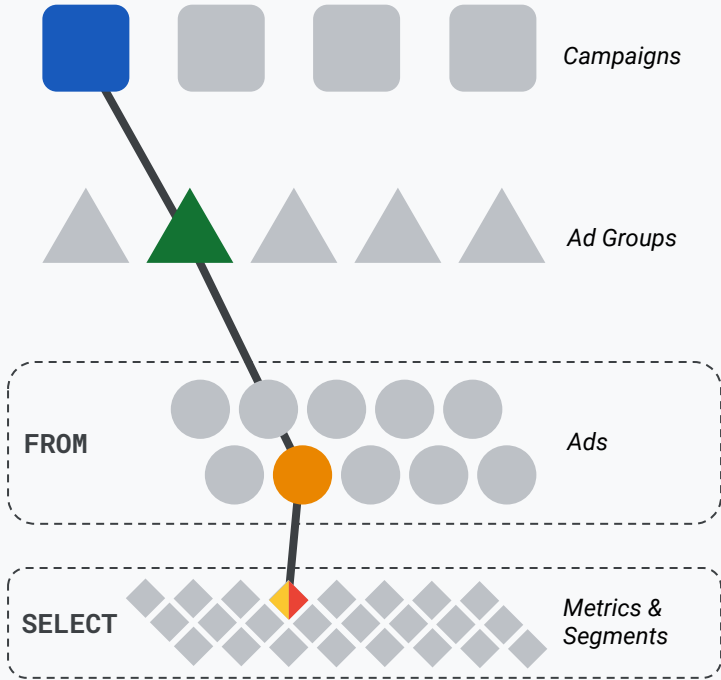
campaign .name	ad_group .id	ad_group_ad .ad.id	metrics .clicks	segments .device
cruises to mars	1	a	1	MOBILE
cruises to mars	1	a	1	DESKTOP
cruises to mars	1	a	3	TABLET
cruises to mars	1	b	3	MOBILE
cruises to mars	1	b	1	DESKTOP
cruises to mars	1	b	1	TABLET
cruises to mars	1	c	8	MOBILE
cruises to mars	1	c	1	DESKTOP
<b>cruises to mars</b>	<b>1</b>	<b>c</b>	<b>0</b>	<b>TABLET</b>
cruises to mars	2	f	0	MOBILE
cruises to mars	2	f	1	DESKTOP
cruises to mars	2	f	1	TABLET
cruises to venus	3	g	0	MOBILE
cruises to venus	3	g	1	DESKTOP
cruises to venus	3	g	3	TABLET
trains to pluto	4	h	1	MOBILE
trains to pluto	4	h	1	DESKTOP
trains to pluto	4	h	9	TABLET
trains to pluto	4	i	6	MOBILE
trains to pluto	4	i	0	DESKTOP
trains to pluto	4	i	8	TABLET
space bicycle tours	5	j	7	MOBILE
space bicycle tours	5	j	2	DESKTOP

Resources

Response



# GoogleAdsRow



GAQL

- Subgraph of resources and metrics
- Determined by
  - Resource in FROM
  - Segments in SELECT

# GoogleAdsRow

campaign	ad group	ad	metrics	segments
mars	1	a	1	MOBILE
mars	1	a	3	DESKTOP
mars	1	a	9	TABLET
mars	1	b	3	MOBILE
mars	1	b	5	DESKTOP
mars	1	b	9	TABLET
mars	1	c	0	MOBILE
mars	1	c	8	DESKTOP
mars	1	c	2	TABLET

FROM

SELECT

- *Flattened* subgraph of resources and metrics
- Determined by
  - Resource in FROM
  - Segments in SELECT

# SearchGoogleAdsStreamResponse

campaign	ad group	ad	metrics	segments
mars	1	a	1	MOBILE
mars	1	a	3	DESKTOP
mars	1	a	9	TABLET
mars	1	b	3	MOBILE
mars	1	b	5	DESKTOP
mars	1	b	9	TABLET
mars	1	c	0	MOBILE
mars	1	c	8	DESKTOP
mars	1	c	2	TABLET

- Only fields in SELECT and resource names are populated
- Response includes a field mask



# Writing Queries

# All Campaigns

```
SELECT  
  campaign.name  
FROM  
  campaign
```

*GAQL*

*Response*

# All Campaigns

```
SELECT
  campaign.name
FROM
  campaign
```

```
| campaign | campaign |
| .resource_name | .name |
| ----- | ----- |
| customers/1234/campaigns/8765 | cruises to mars |
| customers/1234/campaigns/8766 | cruises to venus |
| customers/1234/campaigns/8767 | trains to pluto |
| customers/1234/campaigns/8768 | space bicycle tours |
```

GAQL

Response

# All Non-Paused Campaigns

```
SELECT
  campaign.name
FROM
  campaign
+WHERE
+  campaign.status != 'PAUSED'
```

GAQL

Response

# All Active Campaigns

```
SELECT
  campaign.name
FROM
  campaign
WHERE
-  campaign.status != 'PAUSED'
+  campaign.status NOT IN ('PAUSED', 'REMOVED')
```

GAQL

Response



# All Active Campaigns

```
SELECT
  campaign.name
FROM
  campaign
WHERE
  campaign.status NOT IN ('PAUSED', 'REMOVED')
```

```
| campaign      | campaign      |
| .resource_name | .name         |
| -----      | -----      |
| ../campaigns/8765 | cruises to mars |
| ../campaigns/8766 | cruises to venus |
| ../campaigns/8767 | trains to pluto  |
```

GAQL

Response

# Highest Click-Thru Active Campaigns

```
SELECT
-   campaign.name
+   campaign.name,
+   metrics.ctr
FROM
  campaign
WHERE
  campaign.status NOT IN ('PAUSED', 'REMOVED')
+ORDER BY
+   metrics.ctr DESC
```

GAQL

Response

# Highest Click-Thru Active Campaigns

```
SELECT
  campaign.name,
  metrics.ctr
FROM
  campaign
WHERE
  campaign.status NOT IN ('PAUSED', 'REMOVED')
ORDER BY
  metrics.ctr DESC
```

## ORDER BY Clause

- Default is ASC
- Sorts GoogleAdsRow
- Chain together with commas

# Highest Click-Thru Active Campaigns

```
SELECT
  campaign.name,
  metrics.ctr
FROM
  campaign
WHERE
  campaign.status NOT IN ('PAUSED', 'REMOVED')
ORDER BY
  metrics.ctr DESC
```

```
| campaign | campaign | metrics |
| .resource_name | .name | .ctr |
| ----- | ----- | ----- |
| ../campaigns/8765 | cruises to mars | 0.37 |
| ../campaigns/8766 | cruises to venus | 0.03 |
| ../campaigns/8767 | trains to pluto | 0.0001 |
```

GAQL

Response

# Highest Click-Thru Active Campaigns in Last 30 Days

```
SELECT
  campaign.name,
  metrics.ctr
FROM
  campaign
WHERE
-  campaign.status NOT IN ('PAUSED', 'REMOVED')
+  campaign.status NOT IN ('PAUSED', 'REMOVED') AND
+  segments.date DURING LAST_30_DAYS
ORDER BY
  metrics.ctr DESC
```

GAQL

Response

# Date Operators & Windows

```
SELECT
  campaign.name,
  metrics.ctr
FROM
  campaign
WHERE
  campaign.status NOT IN ('PAUSED', 'REMOVED') AND
  segments.date DURING LAST_30_DAYS
ORDER BY
  metrics.ctr DESC
```

## Date Operators

- DURING
- BETWEEN
- ([full list](#))

## Use with DURING

- TODAY
- YESTERDAY
- LAST\_7\_DAYS
- ([full list](#))

# Highest Click-Through Active Campaigns in Last 30 Days

```
SELECT
  campaign.name,
  metrics.ctr
FROM
  campaign
WHERE
  campaign.status NOT IN ('PAUSED', 'REMOVED') AND
  segments.date DURING LAST_30_DAYS
ORDER BY
  metrics.ctr DESC
```

```
| campaign | campaign | metrics |
| .resource_name | .name | .ctr |
| ----- | ----- | ----- |
| ../campaigns/8765 | cruises to mars | 0.98 |
| ../campaigns/8766 | cruises to venus | 0.03 |
| ../campaigns/8767 | trains to pluto | 0.01 |
```

GAQL

Response

# Top 5 CTR Days for Campaign over Last 30 Days

```
SELECT
-   campaign.name,
+   segments.date,
    metrics.ctr
FROM
    campaign
WHERE
    campaign.status NOT IN ('PAUSED', 'REMOVED') AND
-   segments.date DURING LAST_30_DAYS
+   segments.date DURING LAST_30_DAYS AND
+   campaign.id = 8767
ORDER BY
    metrics.ctr DESC
+LIMIT
+   5
```

GAQL

Response



# Top 5 CTR Days for Campaign over Last 30 Days

```
SELECT
  segments.date,
  metrics.ctr
FROM
  campaign
WHERE
  campaign.status NOT IN ('PAUSED', 'REMOVED') AND
  segments.date DURING LAST_30_DAYS AND
  campaign.id = 8767
ORDER BY
  metrics.ctr DESC
LIMIT
  5
```

segments	metrics
.date	.ctr
-----	-----
2021-08-13	0.999
2021-08-11	0.588
2021-08-10	0.378
2021-08-12	0.333
2021-08-09	0.224

# Hourly CTR by Ad Group

```
SELECT
-   segments.date,
+   segments.hour,
    metrics.ctr
FROM
-   campaign
+   ad_group
WHERE
-   campaign.status NOT IN ('PAUSED', 'REMOVED') AND
-   segments.date DURING LAST_30_DAYS AND
+   segments.date = '2021-08-13' AND
    campaign.id = 8767
ORDER BY
+   ad_group.id,
    metrics.ctr DESC
```

# Hourly CTR by Ad Group

```

SELECT
  segments.hour,
  metrics.ctr
FROM
  ad_group
WHERE
  segments.date = '2021-08-13' AND
  campaign.id = 8767
ORDER BY
  ad_group.id,
  metrics.ctr DESC

```

ad_group	segments	metrics
.resource_name	.hour	.ctr
-----	-----	-----
../adGroups/1	17	0.0863
../adGroups/1	3	0.0794
../adGroups/1	5	0.0564
../adGroups/1	6	0.025
../adGroups/1	4	0.082
../adGroups/2	3	0.088
../adGroups/2	23	0.0756
../adGroups/3	3	0.889
../adGroups/3	18	0.0641
../adGroups/3	6	0.0378
../adGroups/3	11	0.0246

# Hourly CTR by Ad Group

```

SELECT
  segments.hour,
  metrics.ctr
FROM
  ad_group
WHERE
  segments.date = '2021-08-13' AND
  campaign.id = 8767
ORDER BY
  ad_group.id,
  metrics.ctr DESC

```

ad_group	segments	metrics
.resource_name	.hour	.ctr
-----	-----	-----
../adGroups/1	17	0.0863
../adGroups/1	3	0.0794
../adGroups/1	5	0.0564
../adGroups/1	6	0.025
../adGroups/1	4	0.082
../adGroups/2	3	0.088
../adGroups/2	23	0.0756
../adGroups/3	3	0.889
../adGroups/3	18	0.0641
../adGroups/3	6	0.0378
../adGroups/3	11	0.0246

GAQL

Response

# Hourly CTR by Ad Group

```

SELECT
  segments.hour,
  metrics.ctr
FROM
  ad_group
WHERE
  segments.date = '2021-08-13' AND
  campaign.id = 8767
ORDER BY
  ad_group.id,
  metrics.ctr DESC

```

ad_group	segments	metrics
.resource_name	.hour	.ctr
-----	-----	-----
../adGroups/1	17	0.0863
../adGroups/1	3	0.0794
../adGroups/1	5	0.0564
../adGroups/1	6	0.025
../adGroups/1	4	0.082
../adGroups/2	3	0.088
../adGroups/2	23	0.0756
../adGroups/3	3	0.889
../adGroups/3	18	0.0641
../adGroups/3	6	0.0378
../adGroups/3	11	0.0246

GAQL

Response

# Changes for Ad Group by Day

```
SELECT
  change_event.change_date_time
FROM
  change_event
WHERE
  ad_group.resource_name = '../adGroups/3' AND
  change_event.change_date_time = '2021-08-13'
LIMIT
  10
```

GAQL

Response

# Changes for Ad Group by Day

```
SELECT
  change_event.change_date_time
FROM
  change_event
WHERE
  ad_group.resource_name = '../adGroups/3' AND
  change_event.change_date_time = '2021-08-13'
LIMIT
  10
```

```
| change_event.change_date_time |
| ----- |
| 2021-08-13 12:20:38.140821 |
```

GAQL

Response

# Get Matched Keywords for Impressions

```

SELECT
  search_term_view.search_term,
  segments.keyword.info.text
FROM
  search_term_view
WHERE
  segments.date = '2021-08-13' AND
  ad_group.resource_name = '../adGroups/3'

```

```

| keyword.info.text | search_term |
| ----- | ----- |
| space cruise | space money cruises |
| space cruise | money space cruises |
| space cruise | space cruises money tweet |
| space cruise | billionaire space cruise |
| space vacation | space vacation |
| space vacation | family friendly space vacations |
| disney world mars | disney world mars how to get there |

```

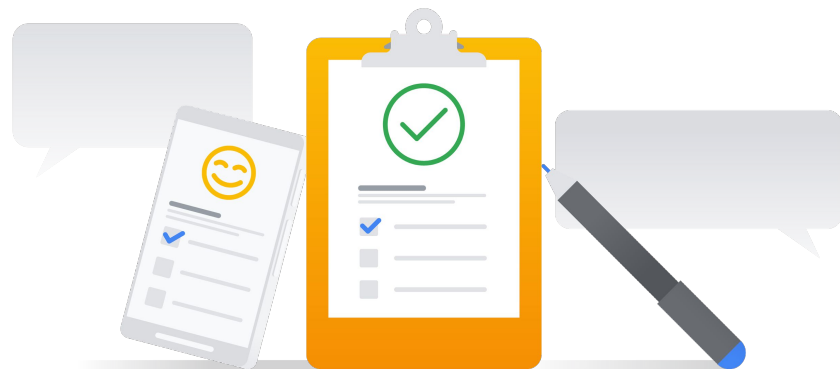
GAQL

Response



# GAQL Features

- Data retrieval
  - Resources
  - Attributed resources (implicit joins)
  - Metrics associated with resources
  - Filter by dates, values, and relationships
- Break down and expand by segments





# Developer Tools

# Query Migration Tool

The following tool can be used to translate AWQL queries into GAQL. Keep in mind that the exact results may differ for a [number of reasons](#).

AWQL Query

```
SELECT CampaignName, CampaignStatus, Device, Impressions, Clicks, Ctr, AverageCpc, Cost
FROM CAMPAIGN_PERFORMANCE_REPORT
DURING LAST_30_DAYS
```

Customer ID (not required for most queries)

Convert

★ **Note:** Customer ID is not required for most queries. It is only needed for queries which filter on a field that maps to a [resource name](#) field in Google Ads API.

```
SELECT campaign.name, campaign.status, segments.device, metrics.impressions, metrics.clicks, metrics.ctr,
metrics.average_cpc, metrics.cost_micros FROM campaign WHERE segments.date DURING LAST_30_DAYS
```

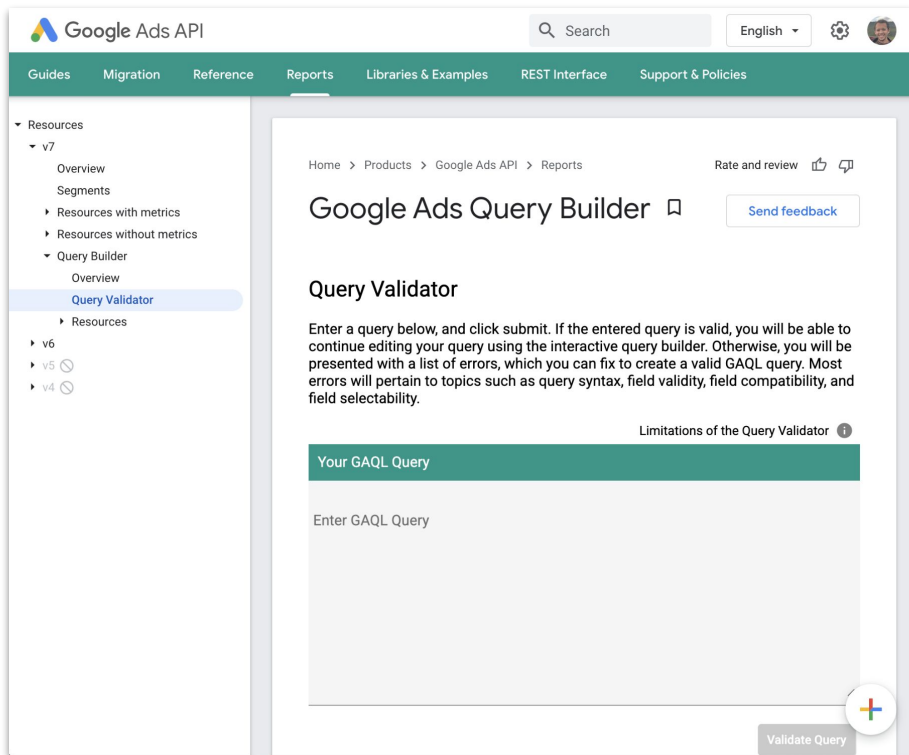
# Interactive Google Ads Query Builder

- Explore query syntax directly in the browser
- Interactively construct queries in the editor
- Copy and paste into your client source code
- Available now on the Google Ads API developer documentation site

The screenshot shows the 'Interactive Google Ads Query Builder' interface. At the top, a green header reads 'Your GAQL Query'. Below it, a code editor displays a GAQL query: `SELECT segments.keyword.info.text, search_term_view.search_term FROM search_term_view WHERE segments.date = '2021-08-13'`. To the right of the code is a copy icon. Below the code editor, there are three radio buttons for 'Standard', 'Pretty Print' (which is selected), and 'Interactive Mode'. A 'Clear Selections' button is to the right of these options, and an 'Enter or edit a query' button is further right. Below the radio buttons, a search bar contains the text 'Start typing to search for fields, segments, and metrics below'. Underneath the search bar is another green header: 'Choose a Clause to Select From'. Below this header are five tabs: 'SELECT', 'WHERE' (which is active and underlined), 'ORDER BY', 'LIMIT', and 'PARAMETERS'. Under the 'WHERE' tab, there are four expandable menu items: 'Attribute Resource Fields', 'Segments', 'Metrics', and 'Attributed Resource Fields'. Each item has a 'Click to expand' link and a downward arrow.

# Interactive Google Ads Query Validator

- Confirm query validity
- View validation errors
- Integrated with the Query Builder



The screenshot shows the Google Ads API Query Validator interface. The top navigation bar includes the Google Ads API logo, a search bar, and a language dropdown set to English. The main navigation menu has tabs for Guides, Migration, Reference, Reports, Libraries & Examples, REST Interface, and Support & Policies. A left sidebar lists resources for v7, v6, v5, and v4, with the v7 Query Validator section highlighted. The main content area displays the 'Google Ads Query Builder' title, a 'Send feedback' button, and the 'Query Validator' heading. Below the heading is a paragraph explaining the tool's purpose: 'Enter a query below, and click submit. If the entered query is valid, you will be able to continue editing your query using the interactive query builder. Otherwise, you will be presented with a list of errors, which you can fix to create a valid GAQL query. Most errors will pertain to topics such as query syntax, field validity, field compatibility, and field selectability.' A 'Limitations of the Query Validator' link is also present. A large text input field labeled 'Your GAQL Query' is provided for entering the query, with a 'Validate Query' button at the bottom right.

# Resources

## Documentation, Guides, Links

### Google Ads API Developer Site

<https://developers.google.com/google-ads/api/docs/start>

Map of AdWords Reports to Google Ads API Resources & Views

<https://developers.google.com/google-ads/api/docs/migration/mapping>

Google Ads Query Language Grammar

<https://developers.google.com/google-ads/api/docs/query/grammar>

Migration Guide: Queries

<https://developers.google.com/google-ads/api/docs/migration/querying>

### Related Content

Intro to Reporting & the Google Ads Query Language

<https://youtu.be/XvAkASBnQBo>

Query Builder Blog Series

[https://ads-developers.googleblog.com/search/label/query\\_builder\\_blog\\_series](https://ads-developers.googleblog.com/search/label/query_builder_blog_series)

### Developer Tools

Interactive Google Ads Query Builder

[https://developers.google.com/google-ads/api/fields/latest/overview\\_query\\_builder](https://developers.google.com/google-ads/api/fields/latest/overview_query_builder)

Query Validator

[https://developers.google.com/google-ads/api/fields/latest/query\\_validator](https://developers.google.com/google-ads/api/fields/latest/query_validator)

Query Migration Tool

<https://developers.google.com/google-ads/api/docs/migration/query-migration-tool>

### Getting Support

Google Ads Developer Blog

<https://ads-developers.googleblog.com>

Google Ads API Forum

<https://groups.google.com/forum/#!forum/adwords-api>

Dedicated Support

[googleadsapi-support@google.com](mailto:googleadsapi-support@google.com)