

# Log Search Syntax and Lab Data Schema

Note: This lesson is in pdf format. You can download it to reference during the lab.

## Logs Search Syntax

The table below summarizes the [syntax](#) you can use in the search field in Log Explorer.

| ELEMENT                     | SYNTAX                        | EXAMPLES   |
|-----------------------------|-------------------------------|--|
| Tag                         | key:value                     | service:frontend   |
| Attribute                   | @key:value                    | @http.method:POST  |
| Single term                 | <text>                        | Response   |
| String (log message text)   | "<search text>"               | "Response fetched"   |
| Conditional logic           | AND, OR, -                    | "authentication AND password"<br>service:(discounts OR ads)<br>service:frontend -status:OK |
| Wildcard                    | *                             | DISCOUNT1*<br>*:200<br>service:store-*   |
| Numerical values and ranges | <, >, <=, or >=<br>[## TO ##] | @http.response_time:>100<br>@http.status_code:[400 TO 499]                                 |

## Lab data schema

In the following hands-on lab, you'll work with logs from 5 different services of an e-commerce app. The function of each service and the attributes found in each log are listed below.

All the logs include the cart\_id and customer.id attributes.

### cart-checkout logs

This log is produced when a customer successfully checks out a cart or abandons a cart after some time.

| KEY                | DATA TYPE |
|--------------------|-----------|
| <b>cart_id</b>     | string    |
| <b>customer.id</b> | string    |
| checkout_status    | string    |
| start_time         | double    |
| item_quatity       | integer   |
| cart_total         | double    |
| checkout_time      | double    |
| message            | string    |
| status             | string    |
| service            | string    |
| ddsource           | string    |
| version            | string    |
| env                | string    |

## product-checkout log

When a cart checkout log is produced, logs are produced with information about each product in the cart.

| KEY                 | DATA TYPE |
|---------------------|-----------|
| <b>cart_id</b>      | string    |
| <b>customer.id</b>  | string    |
| product.id          | string    |
| product.url         | string    |
| product.unit_price  | double    |
| quantity            | integer   |
| discount.code       | string    |
| discount.percentage | double    |
| subtotal            | double    |

|               |        |
|---------------|--------|
| total         | double |
| checkout_time | double |
| message       | string |
| service       | string |
| ddsource      | string |
| version       | string |
| env           | string |

## discount-service log

Almost all products have an automatic discount applied at checkout. These logs are produced for product checkouts with an applied discount.

| KEY                | DATA TYPE |
|--------------------|-----------|
| discount_code      | string    |
| <b>cart_id</b>     | string    |
| <b>customer.id</b> | string    |
| message            | string    |
| service            | string    |
| ddsource           | string    |
| version            | string    |
| env                | string    |

## webserver logs

When a checkout is attempted, a webserver access log is created.

| KEY                | DATA TYPE |
|--------------------|-----------|
| <b>cart_id</b>     | string    |
| <b>customer.id</b> | string    |
| dateaccess         | double    |
| network.client.ip  | string    |

|                       |         |
|-----------------------|---------|
| network.bytes_written | integer |
| http.method           | string  |
| http.url              | string  |
| http.useragent        | string  |
| http.status_code      | integer |
| http.status_category  | string  |
| service               | string  |
| ddsource              | string  |
| version               | string  |
| env                   | string  |

## cart-logger logs

Sometimes a checkout fails. When it does, this log is produced.

| KEY                | DATA TYPE |
|--------------------|-----------|
| <b>cart_id</b>     | string    |
| <b>customer.id</b> | string    |
| cart_url           | string    |
| checkout_status    | string    |
| checkout_time      | double    |
| message            | string    |
| status             | string    |
| service            | string    |
| ddsource           | string    |
| version            | string    |
| env                | string    |