Lab Exercises

Lab typographical conventions:

[`sourcetype=db_audit`] OR [`cs_mime_type`] indicates either a source type or the name of a field.

NOTE: Lab work will be done on your personal computer or virtual machine, no lab environment is provided. We suggest you **DO NOT** do the lab work on your production environment.

The lab instructions refer to these source types by the types of data they represent:

Type	Sourcetype	Fields of interest
Web Application	`access_combined_wcookie`	`action, bytes, categoryId, clientip, itemId, JSESSIONID, productId, referer, referer_domain, status, useragent, file`
Database	`db_audit`	`Command, Duration, Type`
Web server	`linux_secure`	`COMMAND, PWD, pid, process`

Lab Module 6 – Using Fields in Searches

Description

In this lab, you will use fields to refine your searches.

Steps

Scenario: Our web server has been experiencing some down time. The Director of Sales has asked your team to examine how this has affected sales on the website.

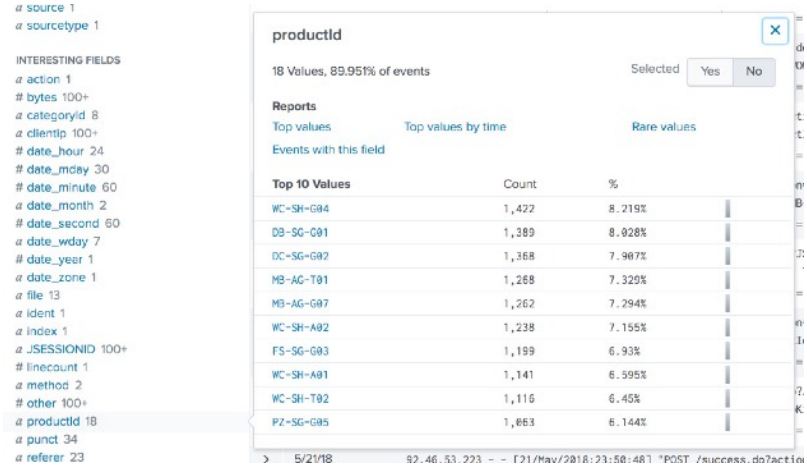
Task 1: Use the Fields sidebar to examine search results.

1. In the app navigation bar (i.e., the bar towards the top of the browser window,) click **Search**. If you do not see **Search** in the application bar – or to clear the previous search - click the **App: Search & Reporting** in the Splunk bar at the top of the browser window.
2. Search for `index=main sourcetype=access_combined_wcookie action=purchase` for **All time.** This returns all events where a purchase action was taken.

NOTE: After the search finalizes, verify that the search executed in Smart Mode. The search mode displays under the time range picker. If the search did not execute in Smart Mode, change it to Smart Mode, and then re-execute the search.

3. Examine the Fields sidebar's **Interesting Fields** list. Notice that `productId` is one of the fields extracted by Splunk.
4. In the Fields sidebar, under **Interesting Fields**, click **productId**. Notice the pop-up window shows the top ten purchased products by productId. Close the window by clicking the x in the upper right corner.

Results Example



5. In the Fields sidebar, under **Interesting Fields**, click **status**. This field contains the status of the web request. Anything greater than `200` means that the customer interaction ended in an error, and the purchase was not made.

Results Example

Values	Count	%
200	17,934	93.236%
503	797	4.143%
408	104	0.541%
400	94	0.489%
406	87	0.452%
500	84	0.437%
505	69	0.359%
404	39	0.203%
403	27	0.14%

6. To quickly view the status for each event, you can make it selected. From the status field window, click **Yes** in the upper right corner next to **Selected**. Close the window by clicking the x in the upper right corner.
7. Notice `status` is now a selected field in the Fields sidebar and `status=value` is displayed below each event.

Results Example

8. In the Fields sidebar, under **Selected Fields**, click the `status` field. From the field window, click the value with the highest number (listed at the top). Notice the field and value have been added to the search criteria in the search bar. Also, this selection causes a new search to be executed using the new search criteria.
9. Since the value that shows up in the most results is 200, you are not seeing the server errors. Changing the comparison operator will correct this.
10. Change the status search to: `status!=200` and re-execute the search.
11. Notice that you now have a search that returns only web purchases that ended in an error.
12. How many events ended in error? You can see the event count under the search bar. Take note of this number as you might be asked for it during the quiz.

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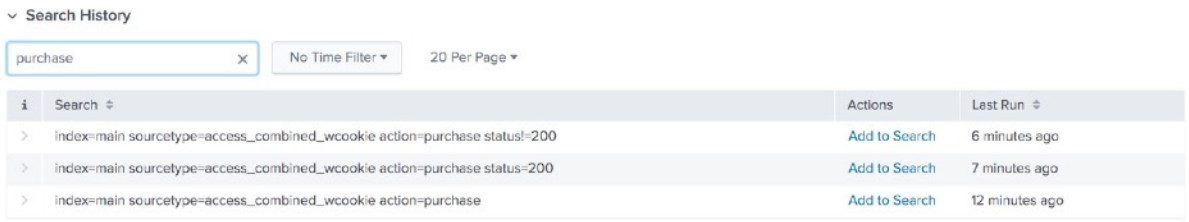
13. In the Fields sidebar, click **status** again and select **No** in the upper right corner next to **Selected.** This will remove it from the **Selected Fields** list. Click the x in the upper right corner to close the field window. Click the **search** link in the **Splunk Bar** to clear the search results.

Task 2: Use Search History to browse previously run searches.

14. Click **Search History** to view your past search history. Unlike jobs, which save the results of your search for a short time, here you only see your search criteria, which are saved for a long time. You will often have many searches. You can filter by time or content to find a search.
15. Click inside the Search History filter box, and type `purchase`. Notice the search list is shortened. Only the searches that contain the word purchase remain.

Results Example



16. For one of the searches, click **Add to Search.** Notice that the search criteria appears in the Search bar, but the time range still displays the default setting.
17. Change the time range, optionally add to or change the search criteria, and then execute the search.

Task 3: View your recent searches using the Jobs page.

18. In the Splunk bar (which is the black bar towards the top of the browser window), click **Activity > Jobs**.
19. Look at the search strings to see if there were any keystroke mistakes. You may see listings like " | `metadata ...` " or " | `history ...` ", which appear when you have accessed the **Expand your search history**.