

Flexible Data Formats

Exercise: Goal: Write a query to format the view_item event into a table with the appropriate columns.

Step 1:

```
1. select event_id,
2.         event_time,
3.         user_id,
4.         platform,
5.         (case when parameter_name = 'item_id'
6.              then cast(parameter_value as int)
7.              else NULL
8.              end) as item_id
9. from
10.  dsv1069.events
11. where
12.  event_name = 'view_item'
13. order by
14.  event_id
15. limit 5
```

	event_id	event_time	user_id	platform	item_id
1	00009c5122b04bc09d7677b5bae641c8	2017-10-06 14:33:32	198519	mobile web	
2	00009c5122b04bc09d7677b5bae641c8	2017-10-06 14:33:32	198519	mobile web	3241
3	0000ac00b5b741a8928a911dc3448cb2	2014-07-25 22:40:56	31861	web	2260
4	0000ac00b5b741a8928a911dc3448cb2	2014-07-25 22:40:56	31861	web	
5	00015a1e375441328232db147a6bc34e	2018-04-07 02:14:08	283465	web	2889

Step 2:

```
1. select event_id,
2.         event_time,
3.         user_id,
4.         platform,
5.         (case when parameter_name = 'item_id'
6.              then cast(parameter_value as int)
7.              else NULL
8.              end) as item_id,
9.         (case when parameter_name = 'referrer'
10.              then parameter_value
11.              else NULL
12.              end) as referrer
13. from
14.  dsv1069.events
15. where
16.  event_name = 'view_item'
17. order by
18.  event_id
19. limit 5
```

	event_id	event_time	user_id	platform	item_id	referrer
1	00009c5122b04bc09d7677b5bae641c8	2017-10-06 14:33:32	198519	mobile web		shopping_cart
2	00009c5122b04bc09d7677b5bae641c8	2017-10-06 14:33:32	198519	mobile web	3241	
3	0000ac00b5b741a8928a911dc3448cb2	2014-07-25 22:40:56	31861	web	2260	
4	0000ac00b5b741a8928a911dc3448cb2	2014-07-25 22:40:56	31861	web		home
5	00015a1e375441328232db147a6bc34e	2018-04-07 02:14:08	283465	web	2889	

Step 3:

```
1. select event_id,
2.         event_time,
3.         user_id,
4.         platform,
5.         max(case when parameter_name = 'item_id'
6.               then cast(parameter_value as int)
7.               else null
8.            end) as item_id,
9.         max(case when parameter_name = 'referrer'
10.              then parameter_value
11.              else null
12.            end) as referrer
13. from
14.     dsv1069.events
15. where
16.     event_name = 'view_item'
17. group by
18.     event_id,
19.     event_time,
20.     user_id,
21.     platform
22. order by
23.     event_id
24. limit 5
```

	event_id	event_time	user_id	platform	item_id	referrer	
1	00009c5122b04bc09d7677b5bae641c8	2017-10-06 14:33:32	198519	mobile web	3241	shopping_cart	
2	0000ac00b5b741a8928a911dc3448cb2	2014-07-25 22:40:56	31861	web	2260	home	
3	00015a1e375441328232db147a6bc34e	2018-04-07 02:14:08	283465	web	2889	home	
4	0001d177b6ad410b8587fba553810c8	2015-10-15 04:04:24	67361	android	3014	item_page	
5	0001fd08f7e745f2903a4a34a046bcce	2017-11-09 02:51:54	237955	web	1424	google_search	