

SUBMISSION 1: Create an RDD with tuples where there is a key and a value. But in contrast to the example above the key is removed from the value portion of the key-value tuple. Submit the code and a print out of the first tuple.

```
narcoticsCrimeTuplesNoFirst = narcoticsCrimes.map(lambda x:(x.split(",")[0],
x.lstrip(str(x.split(",")[0])+","))))

>>> narcoticsCrimeTuples.first()
('10184515', '10184515,HY372204,08/06/2015 11:55:00 PM,033XX W DIVERSEY
AVE,2027,NARCOTICS,POSS:
CRACK,STREET,true,false,1412,014,35,22,18,1153440,1918377,2015,08/13/2015 12:57:42
PM,41.931870591,-87.711546895,\"(41.931870591, -87.711546895)\"')

>>> narcoticsCrimeTuplesNoFirst.first()
('10184515', 'HY372204,08/06/2015 11:55:00 PM,033XX W DIVERSEY AVE,2027,NARCOTICS,POSS:
CRACK,STREET,true,false,1412,014,35,22,18,1153440,1918377,2015,08/13/2015 12:57:42
PM,41.931870591,-87.711546895,\"(41.931870591, -87.711546895)\"')
```

SUBMISSION 2: Submit the code for executing the above query as a Spark SQL python call. Also submit the number of rows in the result

```
>>> eBayResults = sqlContext.sql('select count(*) from Web_Session_Log where REFERERURL =
"http://www.ebay.com"')
>>> eBayResults.show()
+-----+
| _c0 |
+-----+
|3943|
+-----+

>>> results = sqlContext.sql('SELECT * FROM Web_Session_Log')
>>> results.show()
+-----+-----+-----+-----+-----+
| DATETIME | USERID | SESSIONID | PRODUCTID | REFERERURL |
+-----+-----+-----+-----+-----+
| 2008-01-31 15:54:25 | __RequestVerifica... | +.ASPXAUTH=C31HD... | /product/YJ29I0CVQ | http://www.abc.com |
| 2005-12-08 02:36:30 | __RequestVerifica... | +.ASPXAUTH=H7HTS... | /product/MVI9HHP8A | http://www.ebay.com |
| 2015-06-07 23:27:58 | __RequestVerifica... | +.ASPXAUTH=58SZL... | /search/P5XK03AC9 | http://www.abc.com |
| 2009-03-12 03:16:27 | __RequestVerifica... | +.ASPXAUTH=VBWZJ... | /product/A13025WBT | http://www.shophe... |
| 2014-07-23 08:36:03 | __RequestVerifica... | +.ASPXAUTH=VXBLE... | /search/5PI9XD6LZ | http://www.facebo... |
| 2002-12-30 08:42:09 | __RequestVerifica... | +.ASPXAUTH=YABJB... | /product/WS80XJFW2 | http://www.xyz.com |
| 2004-11-03 20:29:10 | __RequestVerifica... | +.ASPXAUTH=2F90N... | /product/OJ201IBUN | http://www.homeshe... |
| 2012-01-26 12:39:57 | __RequestVerifica... | +.ASPXAUTH=SEWRR... | /product/OA3QGXFIU | http://www.xyz.com |
| 2008-04-30 02:01:34 | __RequestVerifica... | +.ASPXAUTH=60B10... | /search/K1IRBE1DU | http://www.abc.com |
| 2003-08-23 09:44:43 | __RequestVerifica... | +.ASPXAUTH=1NRGS... | /product/ANGEKDMKM | http://www.shophe... |
| 2008-04-09 01:24:24 | __RequestVerifica... | +.ASPXAUTH=2Y8NA... | /product/LC94NBS9A | http://www.facebo... |
| 2000-08-07 06:45:19 | __RequestVerifica... | +.ASPXAUTH=KS9LL... | /search/HDKWJ50RV | http://www.facebo... |
| 2013-10-09 05:22:31 | __RequestVerifica... | +.ASPXAUTH=UA1WH... | /search/5LPS3BTJI | http://www.facebo... |
| 2006-07-31 08:12:44 | __RequestVerifica... | +.ASPXAUTH=GDVM0... | /search/BW80TIDQP | http://www.xyz.com |
| 2014-07-27 13:23:18 | __RequestVerifica... | +.ASPXAUTH=0Y5S5... | /search/D558HFH9D | http://www.facebo... |
| 2001-01-10 18:23:03 | __RequestVerifica... | +.ASPXAUTH=VM0YI... | /product/I8VLXARNQ | http://www.xyz.com |
| 2011-09-24 21:28:13 | __RequestVerifica... | +.ASPXAUTH=SDVEA... | /search/S44PIHRYX | http://www.shophe... |
| 2008-09-19 02:52:53 | __RequestVerifica... | +.ASPXAUTH=7NEBV... | /search/CX28DBZYW | http://www.shophe... |
| 2006-03-01 20:10:27 | __RequestVerifica... | +.ASPXAUTH=K58W1... | /product/GG8EXER8K | http://www.amazon... |
| 2012-12-13 00:44:01 | __RequestVerifica... | +.ASPXAUTH=CN6T1... | /product/7677LCRAC | http://www.google... |
+-----+-----+-----+-----+-----+

only showing top 20 rows
```