

Universidad Francisco Marroquín
Facultad de Ciencias Económicas
Computer Science
Big Data
Primer Semestre 2020
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Hoja de Trabajo No. 5

3.

```
hive> SELECT hour(order_date) AS hour, COUNT(*) AS hr_count FROM analyst.orders  
GROUP BY hour(order_date) ORDER BY hr_count DESC LIMIT 3;
```

```
15      86883  
12      86778  
9       86741  
Time taken: 54.855 seconds, Fetched: 3 row(s)
```

4.

```
hive> SELECT prod_id, brand, name, price - cost AS profit FROM analyst.products  
ORDER BY profit DESC LIMIT 5;
```

```
1274315 Sparky Server (1U rackmount, hex-core, 16GB, 8TB) 91177  
1274319 BuckLogix Server (1U rackmount, hex-core, 32GB, 8TB) 88560  
1274313 Olde-Gray Server (1U rackmount, hex-core, 8GB, 4TB) 71303  
1274306 United Digistuff Server (2U rackmount, eight-core, 64GB, 12TB) 6  
3786  
1274320 Sparky Server (1U rackmount, hex-core, 32GB, 8TB) 61366
```

5.

```
hive> SELECT prod_id, brand, name, price, cost, price - cost AS profit FROM analy  
st.products WHERE price-cost <= 0;
```

```
1274021 Dualcore 8GB DDR3-1600 (PC3-12800) Dual Channel Desktop Memory Ki  
t (2x4GB) 119 119 0  
1274136 Bargain Barn Fan Adapter Cable - 16 inch 409 409 0  
1274348 Byteweasel Tablet PC (10 in. display, 64 GB) 37999 38103 -  
104  
Time taken: 0.138 seconds, Fetched: 3 row(s)
```

6.

```
hive> SELECT * FROM products WHERE price IS NULL;
OK
Time taken: 0.05 seconds
hive> SELECT * FROM products WHERE cost IS NULL;
OK
Time taken: 0.055 seconds
hive> SELECT * FROM products WHERE price IS NULL OR cost IS NULL;
OK
Time taken: 0.095 seconds
hive> █
```

7.

```
hive> SELECT avg(price), avg(cost), avg(price - cost) AS avg_profit FROM analyst.
products;█
```

```
OK
21121.235188509876      18116.956912028727      3004.278276481149
Time taken: 21.741 seconds, Fetched: 1 row(s)
```

8.

```
hive> SELECT brand, round(avg(price)), round(avg(cost)), round(avg(price - cost)
) AS avg_profit FROM analyst.products GROUP BY brand;█
```

```
TPS      6360.0   5422.0   938.0
Terrapin Sands  8831.0   7207.0  1624.0
Texi      6263.0   5824.0   439.0
Tortoise      13099.0  10656.0  2443.0
Tyrell  13476.0  10813.0  2663.0
Ultramegaco    5699.0   4763.0   936.0
United Digistuff      34705.0  30335.0  4370.0
Weebits  4629.0   4352.0   277.0
Weisenheimer   17380.0  14258.0  3122.0
Wernham 29290.0  23776.0  5514.0
Whiteacre      35401.0  29858.0  5543.0
Wolfpack      20923.0  16337.0  4586.0
XYZ      5996.0   4798.0   1198.0
Yoyodyne      184237.0      174252.0      9984.0
Time taken: 23.934 seconds, Fetched: 47 row(s)
█
```

9.

```
hive> SELECT brand, round(avg(price)), round(avg(cost)), round(avg(price - cost))
AS avg_profit FROM analyst.products GROUP BY brand HAVING avg(price) > 100000;
```

```
Bitmonkey          142142.0          129646.0          12497.0
Yoyodyne           184237.0          174252.0          9984.0
Time taken: 22.62 seconds, Fetched: 2 row(s)
```

10.

```
hive> SELECT brand, name, price FROM analyst.products WHERE price > 184237;
```

```
OK
United Digistuff      Server (2U rackmount, eight-core, 64GB, 12TB)  597049
Krustybitz           Server (2U rackmount, eight-core, 64GB, 12TB)  599319
Gigabux Server (2U rackmount, eight-core, 64GB, 12TB)  614559
Yoyodyne             Server (1U rackmount, quad-core, 4GB, 2TB)    299969
Electrosaurus        Server (1U rackmount, quad-core, 4GB, 2TB)    295269
Yoyodyne             Server (1U rackmount, quad-core, 4GB, 2TB)    300969
Krustybitz           Server (1U rackmount, hex-core, 8GB, 4TB)     409949
Olde-Gray            Server (1U rackmount, hex-core, 8GB, 4TB)     393989
Lemmon Server (1U rackmount, hex-core, 8GB, 4TB)      397159
Sparky Server (1U rackmount, hex-core, 16GB, 8TB)     470019
Dualcore             Server (1U rackmount, hex-core, 16GB, 8TB)    448239
Krustybitz           Server (1U rackmount, hex-core, 16GB, 8TB)    459179
BuckLogix            Server (1U rackmount, hex-core, 32GB, 8TB)    483989
BuckLogix            Server (1U rackmount, hex-core, 32GB, 8TB)    478489
Sparky Server (1U rackmount, hex-core, 32GB, 8TB)     478459
Byteweasel           Hadoop Cluster, Economy (4-node)              975149
Bitmonkey            All-in-one Desktop (24 in. display)           194389
Bitmonkey            All-in-one Desktop (24 in. display)           188579
BuckLogix            VPN Appliance (250 Clienti license)           227269
Foocorp VPN Appliance (250 Clienti license)           229329
Time taken: 0.054 seconds, Fetched: 20 row(s)
```

11.

```
hive> SELECT brand, name, price FROM analyst.products WHERE (name LIKE 'Server%'
OR name LIKE 'Hadoop Cluster%' OR name = 'All-in-one Desktop (24 in. display)'
OR name LIKE 'VPN Appliance (250%') AND price < 184237;
```

```
OK
TPS      Server Motherboard      26919
Orion     Server Motherboard      27319
Time taken: 0.128 seconds, Fetched: 2 row(s)
```

12.

```
hive> SELECT MIN(if(price > cost,price/(price - cost),NULL)), MAX(if(price > cost,price/(price - cost),NULL))FROM analyst.products;
```

OK

1.1025950048720448	19869.0
--------------------	---------

13.

```
hive> SELECT MIN(if(price > cost,price/(price - cost),NULL)),MAX(if(price > cost,price/(price - cost),NULL))FROM analyst.products GROUP BY brand;
```

1.519412878787879	125.54545454545455
3.488301357042583	105.48489795918367
1.1025950048720448	105.75294117647059
11.177777777777777	764.5
5.155017164416464	150.45348837209303
3.137873754152824	16.052845528455286
2.5215023341349556	21.286303630363037
6.456358551663232	173.00987654320988
1.5288461538461537	52.9974358974359
2.815816326530612	79.94907407407408
6.781545741324921	65.1826923076923
2.768955138311595	288.70833333333333
1.6395939086294415	104.75
1.58249832999332	749.8333333333334
2.7367054167697256	254.45454545454547
16.71119133574007	16.71119133574007
2.242479661978937	1283.9
2.3979444644789036	36.70614035087719
2.2840480890005384	13.21369294605809
2.3739224137931036	95.10975609756098
1.5358472998137802	304.5
5.285611596980951	37.3179169249845
Time taken: 23.198 seconds, Fetched: 47 row(s)	

14. hive> SELECT prod_id, brand, name, price, cost, price/(price - cost) AS ratio FROM analyst.products ORDER BY ratio DESC LIMIT 10;

```

1274061 Chatter Audio Stereo Component CD Player 19869 19868 19869.0
1274080 Dorx MP3 Player (16 GB internal memory) 12819 12812 1831.285
7142857142
1274106 Weisenheimer Wireless Microphone 12839 12829 1283.9
1274258 Electrosaurus 512MB PCI-X Graphics Card (OEM) 7919 7910 879.8888
888888889
1274151 Overtop USB 3.0 Front Panel - 4 Port 1529 1527 764.5
1273694 Ultramegaco Case for Notebook Computer 4499 4493 749.8333
333333334
1274301 BDT Soundcard (Basic) 1299 1296 433.0
1274092 Lemmon MP3 Player (64 GB internal memory) 26469 26403 401.0454
5454545456
1274654 Homertech 4 GB USB Flash Drive 1949 1944 389.8
1274158 XYZ Air Filter (Washable, 120mm) 609 607 304.5
Time taken: 26.066 seconds, Fetched: 10 row(s)

```

15. hive> SELECT prod_id, brand, name, price, cost, price/(price - cost) AS ratio FROM analyst.products
> WHERE name LIKE '8GB%Dual Channel Desktop Memory Kit%';

```

OK
1274019 Ultramegaco 8GB DDR3-1600 (PC3-12800) Dual Channel Desktop Memory Ki
t (2x4GB) 119 108 10.8181818181818
1274020 TPS 8GB DDR3-1600 (PC3-12800) Dual Channel Desktop Memory Kit (2x4GB
) 129 70 2.1864406779661016
1274021 Dualcore 8GB DDR3-1600 (PC3-12800) Dual Channel Desktop Memory Ki
t (2x4GB) 119 119 NULL
1274022 Megachango 8GB DDR3-1600 (PC3-12800) Dual Channel Desktop Memory Ki
t (2x4GB) 119 69 2.38
Time taken: 0.063 seconds, Fetched: 4 row(s)

```