5_ROI

December 12, 2022

SQL request project Yandex Practicum (personal visuzalization implementation in Python)

ROI visualization

[1]:
```
import pandas as pd
%load_ext sql
%sql postgresql://postgres:sqltest123@localhost/1
```

[2]:
```
%%sql result <<
SELECT
ord.dt,
ROUND(revenue * 100 / costs) AS ROI
FROM
(SELECT DATE_TRUNC('month', created_at)::date AS dt,
       SUM(costs) AS costs
FROM tools_shop.costs
GROUP BY dt) AS co
LEFT JOIN
(SELECT DATE_TRUNC('month', paid_at)::date AS dt,
       SUM(total_amt) AS revenue
FROM tools_shop.orders
GROUP BY dt) AS ord ON co.dt = ord.dt
ORDER BY 1
LIMIT 12
```

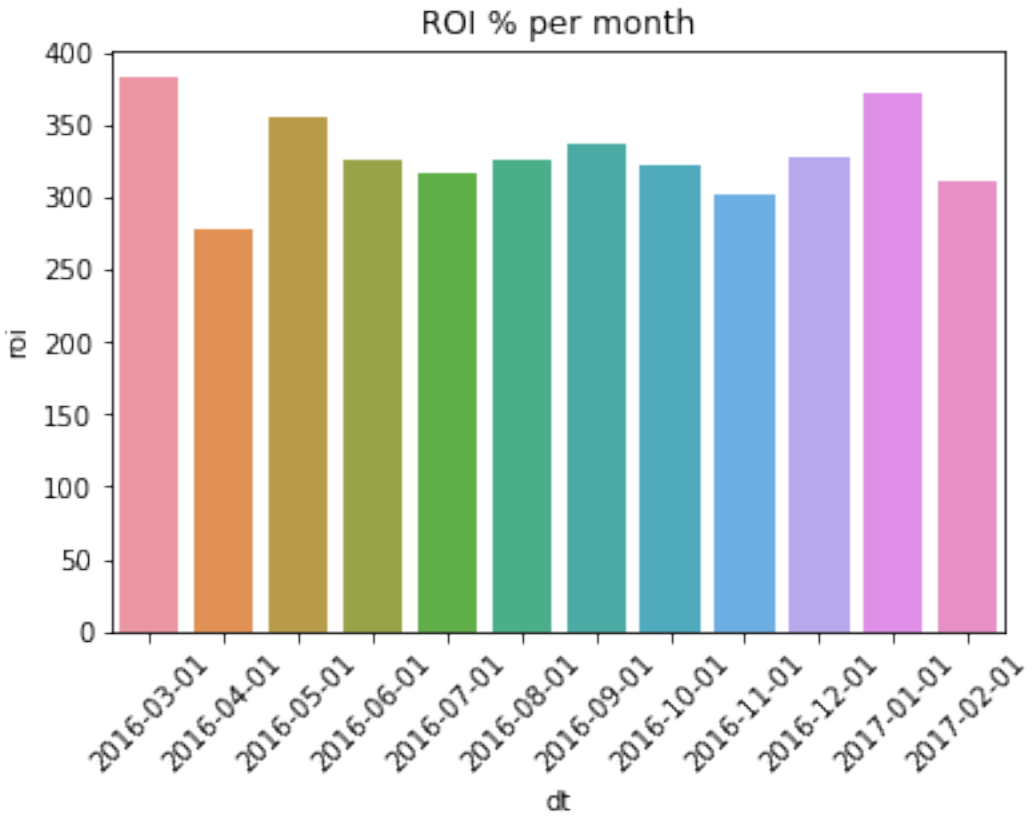
```
 * postgresql://postgres:***@localhost/1
12 rows affected.
Returning data to local variable result
```

[12]:
```
df = result.DataFrame()
display(df.head(12))
```

```
           dt  roi
0  2016-03-01  383
1  2016-04-01  278
2  2016-05-01  357
3  2016-06-01  327
4  2016-07-01  318
5  2016-08-01  327
```

```
6   2016-09-01  337
7   2016-10-01  322
8   2016-11-01  303
9   2016-12-01  328
10  2017-01-01  373
11  2017-02-01  312
```

[21]:
```
import pandas as pd
import seaborn as sb
import matplotlib.pyplot as plt
plot = sb.barplot(data=df,
                  x='dt',
                  y='roi').set(title='ROI % per month')
plt.xticks(rotation=45)
plt.show()
```



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