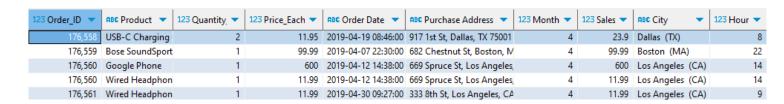This file contains SQL queries that I used to analyze a dataset. Before running these queries, I cleaned up the dataset using Pandas. These queries helped me find answers to different questions and understand the data better. Feel free to check them out to see how I analyzed the dataset!

```
select *
from all_data
limit 5;
```

123 Order_ID	ABC Product	123 Quantity	123 Price_Each	ABC Order Date	ABC Purchase Address	123 Month	123 Sales	ABC City	123 Hour
176,558	USB-C Charging	2	11.95	2019-04-19 08:46:00	917 1st St, Dallas, TX 75001	4	23.9	Dallas (TX)	8
176,559	Bose SoundSport	1	99.99	2019-04-07 22:30:00	682 Chestnut St, Boston, M	4	99.99	Boston (MA)	22
176,560	Google Phone	1	600	2019-04-12 14:38:00	669 Spruce St, Los Angeles,	4	600	Los Angeles (CA)	14
176,560	Wired Headphon	1	11.99	2019-04-12 14:38:00	669 Spruce St, Los Angeles,	4	11.99	Los Angeles (CA)	14
176,561	Wired Headphon	1	11.99	2019-04-30 09:27:00	333 8th St, Los Angeles, CA	4	11.99	Los Angeles (CA)	9

WHAT WAS THE BEST MONTH FOR SALES? HOW MUCH WAS EARNED THAT MONTH?

```
select
        month
        , round(sum(sales),2) as total_sales_amount
        , sum(Quantity_Ordered) as prod_quantity
        , count(distinct order_id) as total_orders
from all_data ad
group by month
order by total_sales_amount desc;
```

123 month	123 total_sales_amount	123 prod_quantity	123 total_orders
12	4,613,443.34	28,114	24,004
10	3,736,726.88	22,703	19,436
4	3,390,670.24	20,558	17,528
11	3,199,603.2	19,798	16,859
5	3,152,606.75	18,667	15,836
3	2,807,100.38	17,005	14,549
7	2,647,775.76	16,072	13,761
6	2,577,802.26	15,253	12,989
8	2,244,467.88	13,448	11,484
2	2,202,022.42	13,449	11,496
9	2,097,560.13	13,109	11,202
1	1,822,256.73	10,903	9,293

WHICH CITY HAD THE HIGHEST NUMBER OF PRODUCTS SOLD?

```
select
        city
        , round(sum(sales),2) as total_sales
        , sum(Quantity_Ordered) as prod_quantity
        , count(distinct order_id) as total_orders
        from all_data ad
group by city
order by prod_quantity desc;
```

ABC city	123 total_sales	123 prod_quantity	123 total_orders
San Francisco (CA)	8,262,203.91	50,239	42,898
Los Angeles (CA)	5,452,570.8	33,289	28,498
New York City (NY)	4,664,317.43	27,932	23,848
Boston (MA)	3,661,642.01	22,528	19,092
Dallas (TX)	2,767,975.4	16,730	14,240
Atlanta (GA)	2,795,498.58	16,602	14,253
Seattle (WA)	2,747,755.48	16,553	14,119
Portland (OR)	1,870,732.34	11,303	9,617
Austin (TX)	1,819,581.75	11,153	9,509
Portland (ME)	449,758.27	2,750	2,363

WHAT TIME SHOULD WE DISPLAY ADVERTISEMENTS TO MAXIMIZE LIKELIHOOD OF CUSTOMER'S BUYING PRODUCT?

select
        hour
        , count(distinct order_id) as total_orders
from all_data ad
group by `Hour` order by hour;

123 hour	123 total_orders
0	3,758
1	2,255
2	1,196
3	804
4	814
5	1,259
6	2,375
7	3,836
8	6,036
9	8,404
10	10,492
11	11,882
12	12,082
13	11,682
14	10,522
15	9,761
16	9,960
17	10,476
18	11,761
19	12,377
20	11,763
21	10,499
22	8,453
23	5,990

MOST SOLD PRODUCT & AVERAGE PRICE

```
select
        product
        , sum(quantity_ordered) as prod_quantity
        , round(avg(price_each), 2) as avg_price
from all_data ad
group by product;
```

ABC product	123 prod_quantity	123 avg_price
USB-C Charging Cable	23,975	11.95
Bose SoundSport Headphones	13,457	99.99
Google Phone	5,532	600
Wired Headphones	20,557	11.99
Macbook Pro Laptop	4,728	1,700
Lightning Charging Cable	23,217	14.95
27in 4K Gaming Monitor	6,244	389.99
AA Batteries (4-pack)	27,635	3.84
Apple Airpods Headphones	15,661	150
AAA Batteries (4-pack)	31,017	2.99
iPhone	6,849	700
Flatscreen TV	4,819	300
27in FHD Monitor	7,550	149.99
20in Monitor	4,129	109.99
LG Dryer	646	600
ThinkPad Laptop	4,130	999.99
Vareebadd Phone	2,068	400
LG Washing Machine	666	600
34in Ultrawide Monitor	6,199	379.99