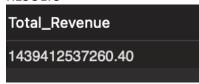GOLD STOCK PRICES

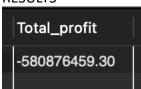1. -- CALCULATING REVENUE
SELECT SUM(Close_Price * Trading_Volume) AS Total_Revenue
FROM combined_gold_stocks;

RESULTS

Total_Revenue
1439412537260.40

2. SELECT SUM((Close_Price - Open_Price) * Trading_Volume) AS Total_profit
FROM combined_gold_stocks;

RESULTS

Total_profit
-580876459.30

3. -- AVERAGE CLOSING PRICE FOR EACH YEAR
SELECT YEAR(Date) AS YEAR, AVG(Close_Price) AS AVERAGE_CLOSE_PRICE
FROM combined_gold_stocks
GROUP BY YEAR(DATE)
ORDER BY YEAR DESC;

YEAR	AVERAGE_CLOSE_PRICE
2024	2203.142143
2023	1954.053600
2022	1808.683871
2021	1801.144246
2020	1779.716667
2019	1397.123016
2018	1272.021600
2017	1260.572112
2016	1251.715079
2015	1158.809524
2014	1258.231319

4. -- AVERAGE GOLD PRICE FLUCTUATIONS PER YEAR
   SELECT YEAR(Date) AS YEAR, AVG(High_price - Low_Price) AS
   AVERAGE_PRICE_FLUCTUATION
   FROM combined_gold_stocks
   GROUP BY YEAR(Date)
   ORDER BY YEAR ASC;

YEAR	AVERAGE_PRICE_FLUCTUATION
2014	17.438736
2015	16.269048
2016	18.828968
2017	12.912351
2018	12.672800
2019	14.266270
2020	29.991667
2021	21.736508
2022	27.108468
2023	24.163600
2024	31.565000

5. -- TOTAL GOLD SOLD
   SELECT SUM(Trading_Volume) AS TOTAL_GOLD_SOLD FROM combined_gold_stocks

TOTAL_GOLD_SOLD
944718451

   -- VOLUME AND PRICE CHANGE
6. SELECT YEAR(Date) AS YEAR, Trading_Volume , (Close_Price - Open_Price) AS
   CHANGE_IN_PRICE
   FROM combined_gold_stocks
   WHERE Trading_Volume > 500000
   ORDER BY YEAR DESC;

YEAR	Trading_Volume	CHANGE_IN_PRICE
2020	619051	-0.70
2020	654660	3.00
2020	655245	2.40
2020	787217	3.50
2020	619051	-0.70
2020	654660	3.00
2020	655245	2.40
2020	787217	3.50
2019	618309	-4.70
2019	618309	-4.70
2016	783657	-3.30
2016	783657	-3.30

7. SELECT
   HOUR(Date) AS DATE_HOUR,
    SUM(Trading_Volume) AS TOTAL_GOLD_SOLD
   FROM combined_gold_stocks
   GROUP BY HOUR(Date)
   ORDER BY DATE_HOUR;

8. WITH PriceReversals AS (
     SELECT
      Date,
    Close_Price,
    LAG(Close_Price, 1) OVER (ORDER BY Date) AS Previous_Close_Price,
    LEAD(Close_Price, 1) OVER (ORDER BY Date) AS Next_Close_Price
   FROM combined_gold_stocks
)
SELECT
  Date,
  Close_Price,
  Previous_Close_Price,
  Next_Close_Price
FROM PriceReversals
WHERE Close_Price > Previous_Close_Price
 AND Close_Price > Next_Close_Price
ORDER BY Date;

Date	Close_Price	Previous_Close_Price	Next_Close_Price
2014-01-24	1264.50	1262.50	1263.50
2014-01-29	1262.20	1250.50	1242.50
2014-02-03	1259.90	1239.80	1251.20
2014-02-18	1324.40	1318.60	1320.40
2014-02-25	1342.70	1338.00	1328.00
2014-02-27	1331.80	1328.00	1321.60
2014-03-03	1350.30	1321.60	1337.90
2014-03-06	1351.80	1340.30	1338.20
2014-03-14	1379.00	1372.40	1372.90
2014-03-21	1336.00	1330.50	1311.10
2014-03-25	1311.40	1311.10	1303.40
2014-04-02	1290.80	1280.00	1284.60
2014-04-04	1303.50	1284.60	1298.30
2014-04-08	1309.10	1298.30	1305.90
2014-04-10	1320.50	1305.90	1319.00
2014-04-14	1327.50	1319.00	1300.30
2014-04-16	1303.50	1300.30	1293.90
2014-04-25	1300.80	1290.60	1299.00
2014-05-05	1309.30	1302.90	1308.60
2014-05-12	1295.80	1287.60	1294.80
2014-05-14	1305.90	1294.80	1293.60
2014-05-20	1294.60	1293.80	1288.10
2014-05-22	1295.20	1288.10	1291.90
2014-06-03	1244.50	1244.00	1244.30
2014-06-05	1253.30	1244.30	1252.50
2014-06-16	1275.30	1274.10	1272.00
2014-06-25	1322.60	1321.30	1317.00
2014-07-02	1330.90	1326.60	1320.60
2021-10-06	1761.80	1760.90	1759.20
2021-10-14	1797.90	1794.70	1768.30
2021-10-20	1784.90	1770.50	1781.90
2021-10-25	1806.80	1796.30	1793.40

Date	Close_Price	Previous_Close_Price	Next_Close_Price
2021-10-14	1797.90	1794.70	1768.30
2021-10-20	1784.90	1770.50	1781.90
2021-10-25	1806.80	1796.30	1793.40
2021-10-28	1802.60	1798.80	1783.90
2024-01-23	2025.80	2022.20	2016.00
2024-01-25	2017.80	2016.00	2017.30
2024-02-01	2071.10	2067.40	2053.70
2024-02-07	2051.70	2051.40	2047.90
2024-02-20	2039.80	2024.10	2034.30
2024-02-23	2049.40	2030.70	2038.90
2024-02-27	2044.10	2038.90	2042.70
2024-03-11	2188.60	2185.50	2166.10
2024-03-13	2180.80	2166.10	2167.50
2024-03-18	2164.30	2161.50	2159.70
2024-03-21	2184.70	2161.00	2160.00
2024-04-03	2315.00	2281.80	2308.50
2024-04-09	2362.40	2351.00	2348.40
2024-04-16	2407.80	2383.00	2388.40
2024-04-19	2413.80	2398.00	2346.40
2024-04-29	2357.70	2347.20	2302.90
2024-05-01	2311.00	2302.90	2309.60
2024-05-06	2331.20	2308.60	2324.20
2024-05-10	2375.00	2340.30	2343.00
2024-05-15	2394.90	2359.90	2385.50
2024-05-20	2438.50	2417.40	2425.90
2024-05-28	2356.50	2334.50	2341.20
2024-05-30	2366.50	2341.20	2345.80
2024-06-03	2369.30	2345.80	2347.40
2024-06-06	2390.90	2375.50	2325.00
2024-06-10	2327.00	2325.00	2326.60
2024-06-12	2354.80	2326.60	2318.00
2024-06-14	2349.10	2318.00	2329.00
2024-06-20	2369.00	2346.90	2331.20

9.   -- MONTHLY AVERAGE CLOSING PRICE
SELECT
    YEAR(Date) AS Year,
    MONTH(Date) AS Month,
        AVG(Close_Price) AS AVERAGE_CLOSING_PRICE
FROM combined_gold_stocks
GROUP BY YEAR(Date), MONTH(Date)
ORDER BY Year, Month;

Year	Month	AVERAGE_CLOSING_PRICE
2014	1	1253.012500
2014	2	1300.721053
2014	3	1336.528571
2014	4	1298.747619
2014	5	1287.809524
2014	6	1282.566667
2014	7	1310.602439
2014	8	1296.680952
2014	9	1236.476190
2014	10	1223.569565
2014	11	1176.584211
2014	12	1200.409091
2015	1	1253.205000
2015	2	1225.484211
2015	3	1177.854545
2015	4	1199.828571
2015	5	1198.200000
2015	6	1181.159091
2015	7	1128.336364
2015	8	1118.819048
2015	9	1123.866667
2015	10	1159.390909
2015	11	1083.885000
2015	12	1068.586364
2016	1	1097.289474
2016	2	1201.605000
2016	3	1245.854545

10. SELECT
    WEEK(Date, 1) AS WEEK_NUMBER,
    YEAR(Date) AS Year,
    COUNT(DISTINCT Close_Price) AS Total_Close_Prices
FROM combined_gold_stocks
GROUP BY WEEK(Date, 1), YEAR(Date)
ORDER BY Year, WEEK(Date, 1);

WEEK_NUMBER	Year	Total_Close_Prices
4	2014	3
5	2014	5
6	2014	5
7	2014	5
8	2014	4
9	2014	5
10	2014	5
11	2014	5
12	2014	5
13	2014	5
14	2014	5
15	2014	5
16	2014	4
17	2014	5
18	2014	5
19	2014	5
20	2014	5
21	2014	5
22	2014	4
23	2014	5
24	2014	5

WEEK_NUMBER	Year	Total_Close_Prices
25	2014	5
26	2014	5
27	2014	4
28	2014	5
29	2014	5
30	2014	5
31	2014	5
32	2014	5
33	2014	5
34	2014	5
35	2014	5
36	2014	4
37	2014	5
38	2014	5
39	2014	5
40	2014	5
41	2014	5
42	2014	5
43	2014	5
44	2014	5
45	2014	4
46	2014	5

WEEK_NUMBER	Year	Total_Close_Prices
46	2014	5
47	2014	5
48	2014	4
49	2014	5
50	2014	5
51	2014	5
52	2014	4
53	2014	3
1	2015	1
2	2015	5
3	2015	5
4	2015	4
5	2015	5
6	2015	5
7	2015	5
8	2015	4
9	2015	5
10	2015	5
11	2015	5
12	2015	5
13	2015	5
14	2015	4

WEEK_NUMBER	Year	Total_Close_Prices
7	2024	5
8	2024	4
9	2024	5
10	2024	5
11	2024	5
12	2024	5
13	2024	4
14	2024	5
15	2024	5
16	2024	5
17	2024	5
18	2024	5
19	2024	5
20	2024	5
21	2024	5
22	2024	4
23	2024	5
24	2024	5
25	2024	4
26	2024	5
27	2024	3

WEEK_NUMBER	Year	Total_Close_Prices
37	2023	5
38	2023	5
39	2023	5
40	2023	5
41	2023	5
42	2023	5
43	2023	5
44	2023	5
45	2023	5
46	2023	5
47	2023	4
48	2023	5
49	2023	5
50	2023	5
51	2023	5
52	2023	4
1	2024	4
2	2024	5
3	2024	4
4	2024	5
5	2024	5
6	2024	5

WEEK_NUMBER	Year	Total_Close_Prices
15	2023	5
16	2023	5
17	2023	5
18	2023	5
19	2023	5
20	2023	5
21	2023	5
22	2023	4
23	2023	5
24	2023	5
25	2023	4
26	2023	5
27	2023	4
28	2023	5
29	2023	5
30	2023	5
31	2023	5
32	2023	5
33	2023	5
34	2023	5
35	2023	5
36	2023	4

11. -- Calculate Yearly Percentage Change
WITH yearly_prices AS (
  SELECT
    YEAR(Date) AS Year,
        MIN(Close_Price) AS Starting_Price,
        MAX(Close_Price) AS Ending_Price
      FROM combined_gold_stocks
      GROUP BY YEAR(Date)
  ),
  percentage_change AS (
    SELECT
      Year,
      Starting_Price,
       Ending_Price,
      ((Ending_Price - Starting_Price) / Starting_Price) * 100 AS Percentage_Change
  FROM yearly_prices
)
SELECT *
FROM percentage_change

ORDER BY Year;

Year	Starting_Pri...	Ending_Price	Percentage_Change
2014	1142.60	1379.00	20.689655
2015	1049.60	1300.70	23.923399
2016	1073.60	1372.60	27.850224
2017	1162.00	1351.20	16.282272
2018	1182.30	1368.00	15.706673
2019	1272.00	1560.40	22.672956
2020	1477.90	2069.40	40.023006
2021	1678.00	1954.40	16.471990
2022	1633.40	2043.30	25.094894
2023	1817.10	2093.10	15.189037
2024	2004.30	2438.50	21.663424

12. -- 7-day rolling average of closing prices
    SELECT YEAR(Date), Close_Price,
        AVG(Close_Price) OVER (ORDER BY Date ROWS BETWEEN 6 PRECEDING AND
    CURRENT ROW) AS ROLLING_7_DAY_AVERAGE
    FROM combined_gold_stocks
    ORDER BY YEAR(Date) DESC;

YEAR(Date)	Close_Price	ROLLING_7_DAY_AVERAGE
2024	2073.40	2081.457143
2024	2073.40	2078.642857
2024	2042.80	2071.457143
2024	2042.80	2065.642857
2024	2050.00	2060.857143
2024	2050.00	2057.742857
2024	2049.80	2054.600000
2024	2049.80	2051.228571
2024	2033.50	2045.528571
2024	2033.50	2044.200000
2024	2033.00	2042.800000
2024	2033.00	2040.371429
2024	2027.80	2037.200000
2024	2027.80	2034.057143
2024	2019.20	2029.685714
2024	2019.20	2027.642857
2024	2051.60	2030.228571
2024	2051.60	2032.885714
2024	2030.20	2032.485714
2024	2030.20	2032.828571

13. SELECT YEAR(Date), (Close_Price - Open_Price) AS DAILY_GAIN
FROM combined_gold_stocks
ORDER BY DAILY_GAIN DESC
LIMIT 10;

YEAR(Date)	DAILY_GAIN
2020	73.50
2020	73.50
2016	68.10
2016	68.10
2020	64.30
2020	64.30
2023	59.80
2023	59.80
2014	58.70
2014	58.70

14. SELECT YEAR(Date), QUARTER(Date) AS QUARTER, Close_Price
FROM combined_gold_stocks

```sql
WHERE YEAR(Date) > 2023 AND YEAR(Date) = 2024
ORDER BY YEAR(Date) DESC;
```

YEAR(Date)	QUARTER	Close_Price
2024	1	2029.30
2024	1	2021.60
2024	1	2006.50
2024	1	2030.20
2024	1	2051.60
2024	1	2019.20
2024	1	2027.80
2024	1	2033.00
2024	1	2033.50
2024	1	2049.80
2024	1	2050.00
2024	1	2042.80
2024	1	2073.40
2024	3	2369.40
2024	3	2333.40
2024	3	2338.90
2024	2	2339.60
2024	2	2336.60
2024	2	2313.20
2024	2	2330.80
2024	2	2344.40
2024	2	2331.20
2024	2	2369.00
2024	2	2346.90
2024	2	2329.00
2024	2	2349.10
2024	2	2318.00
2024	2	2354.80
2024	2	2326.60
2024	2	2327.00
2024	2	2325.00
2024	2	2390.90
2024	2	2375.50
2024	2	2347.40
2024	2	2369.30
2024	2	2345.80
2024	2	2366.50

YEAR(Date)	QUARTER	Close_Price
2024	2	2334.50
2024	2	2337.20
2024	2	2392.90
2024	2	2425.90
2024	2	2438.50
2024	2	2417.40
2024	2	2385.50
2024	2	2394.90
2024	2	2359.90
2024	2	2343.00
2024	2	2375.00
2024	2	2340.30
2024	2	2322.30
2024	2	2324.20
2024	2	2331.20
2024	2	2308.60
2024	2	2309.60
2024	2	2311.00
2024	2	2302.90
2024	2	2357.70
2024	2	2347.20
2024	2	2342.50
2024	2	2338.40
2024	2	2342.10
2024	2	2346.40
2024	2	2413.80
2024	2	2398.00
2024	2	2388.40
2024	2	2407.80
2024	2	2383.00
2024	2	2374.10
2024	2	2372.70
2024	2	2348.40
2024	2	2362.40
2024	2	2351.00
2024	2	2345.40
2024	2	2308.50

YEAR(Date)	QUARTER	Close_Price
2024	2	2315.00
2024	2	2281.80
2024	2	2257.10
2024	1	2238.40
2024	1	2212.70
2024	1	2177.20
2024	1	2176.40
2024	1	2160.00
2024	1	2184.70
2024	1	2161.00
2024	1	2159.70
2024	1	2164.30
2024	1	2161.50
2024	1	2167.50
2024	1	2180.80
2024	1	2166.10
2024	1	2188.60
2024	1	2185.50
2024	1	2165.20
2024	1	2158.20
2024	1	2141.90
2024	1	2126.30
2024	1	2095.70
2024	1	2054.70
2024	1	2042.70
2024	1	2044.10
2024	1	2038.90
2024	1	2049.40
2024	1	2030.70
2024	1	2034.30
2024	1	2039.80
2024	1	2024.10
2024	1	2014.90
2024	1	2004.30
2024	1	2007.20
2024	1	2033.00
2024	1	2038.70

YEAR(Date)	QUARTER	Close_Price
2024	1	2049.40
2024	1	2030.70
2024	1	2034.30
2024	1	2039.80
2024	1	2024.10
2024	1	2014.90
2024	1	2004.30
2024	1	2007.20
2024	1	2033.00
2024	1	2038.70
2024	1	2047.90
2024	1	2051.70
2024	1	2051.40
2024	1	2042.90
2024	1	2053.70
2024	1	2071.10
2024	1	2067.40
2024	1	2050.90
2024	1	2025.40
2024	1	2017.30
2024	1	2017.80
2024	1	2016.00
2024	1	2025.80
2024	1	2022.20
2024	1	2029.30
2024	1	2021.60
2024	1	2006.50
2024	1	2030.20
2024	1	2051.60
2024	1	2019.20
2024	1	2027.80
2024	1	2033.00
2024	1	2033.50
2024	1	2049.80
2024	1	2050.00
2024	1	2042.80
2024	1	2073.40

15. Summary statistics for gold prices (open, close, high, low)

```
SELECT
  MIN(Close_Price) AS MINIMUM_CLOSE_PRICE,
```

```
  MAX(Close_Price) AS MAX_CLOSE_PRICE,
  AVG(Close_Price) AS AVERAGE_CLOSE_PRICE,
  STDDEV(Close_Price) AS STDEV_CLOSE_PRICE
FROM combined_gold_stocks;
```

MINIMUM_CLOSE_PRICE	MAX_CLOSE_PRICE	AVERAGE_CLOSE_PRICE	STDEV_CLOSE_PRICE
1049.60	2438.50	1519.951493	317.3544677433957