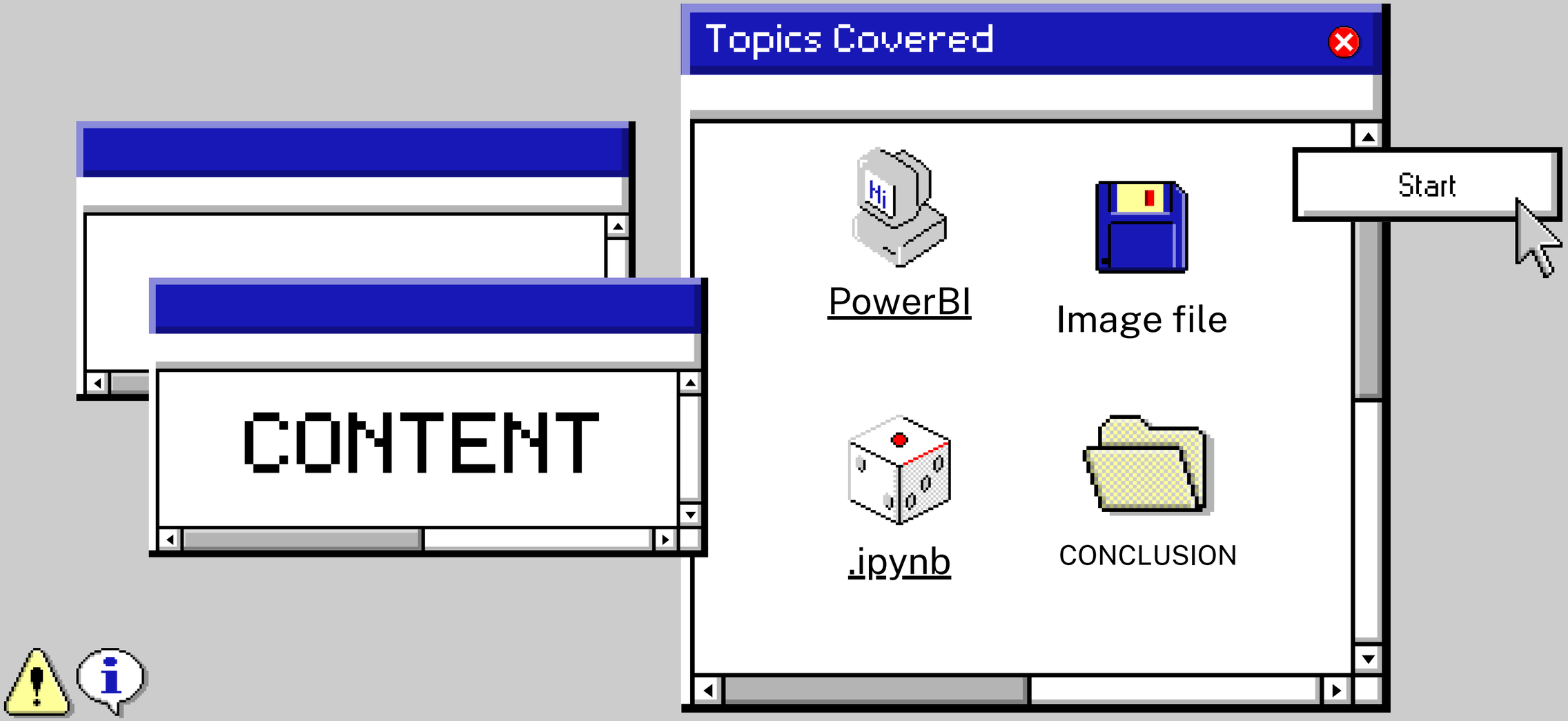
Safety Data Analytics

TEAM NAME--> 007

11:11PM

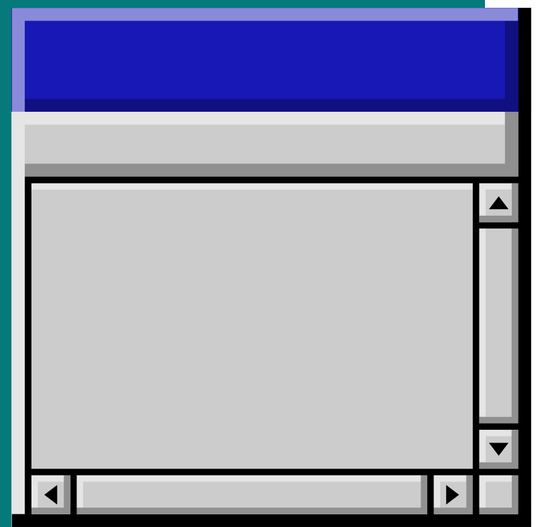

Topics Covered
Start
PowerBI
Image file
.ipynb
CONCLUSION
CONTENT

PowerBI

https://app.powerbi.com/groups/me/reports/7e0d6687-418d-4f34-a554-f4648c3ee126/ReportSection

Start

No



QUESTION 01

- Mention the gangue minerals associated with top five most available ore minerals found in India.

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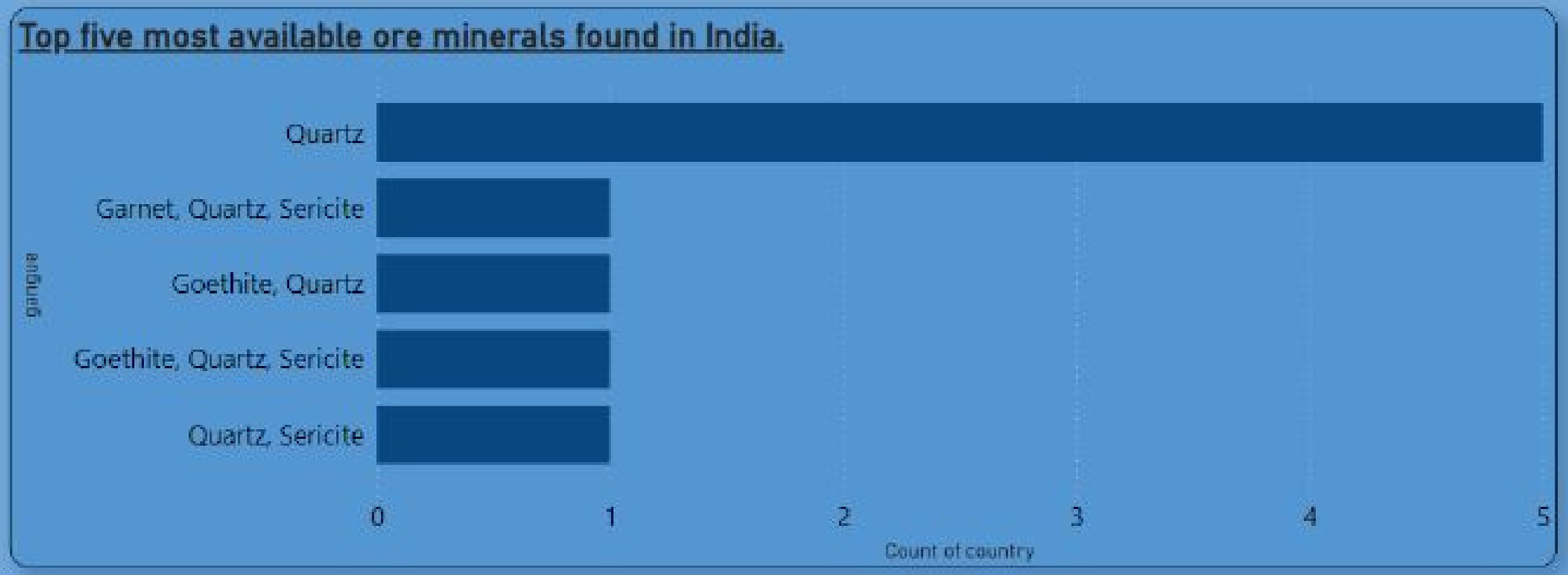
The gangue minerals associated with top five most available ore minerals found in India.



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QUESTION 01

- Mention top ten leading states of the world where silver is the by-product mineral recovered from the mines which were functional in the past.

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Mentioned top ten leading states of the world where silver is the by-product mineral recovered from the mines which were functional in the .

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QUESTION 01

- Mention the countries of Asia with largest vein deposits.

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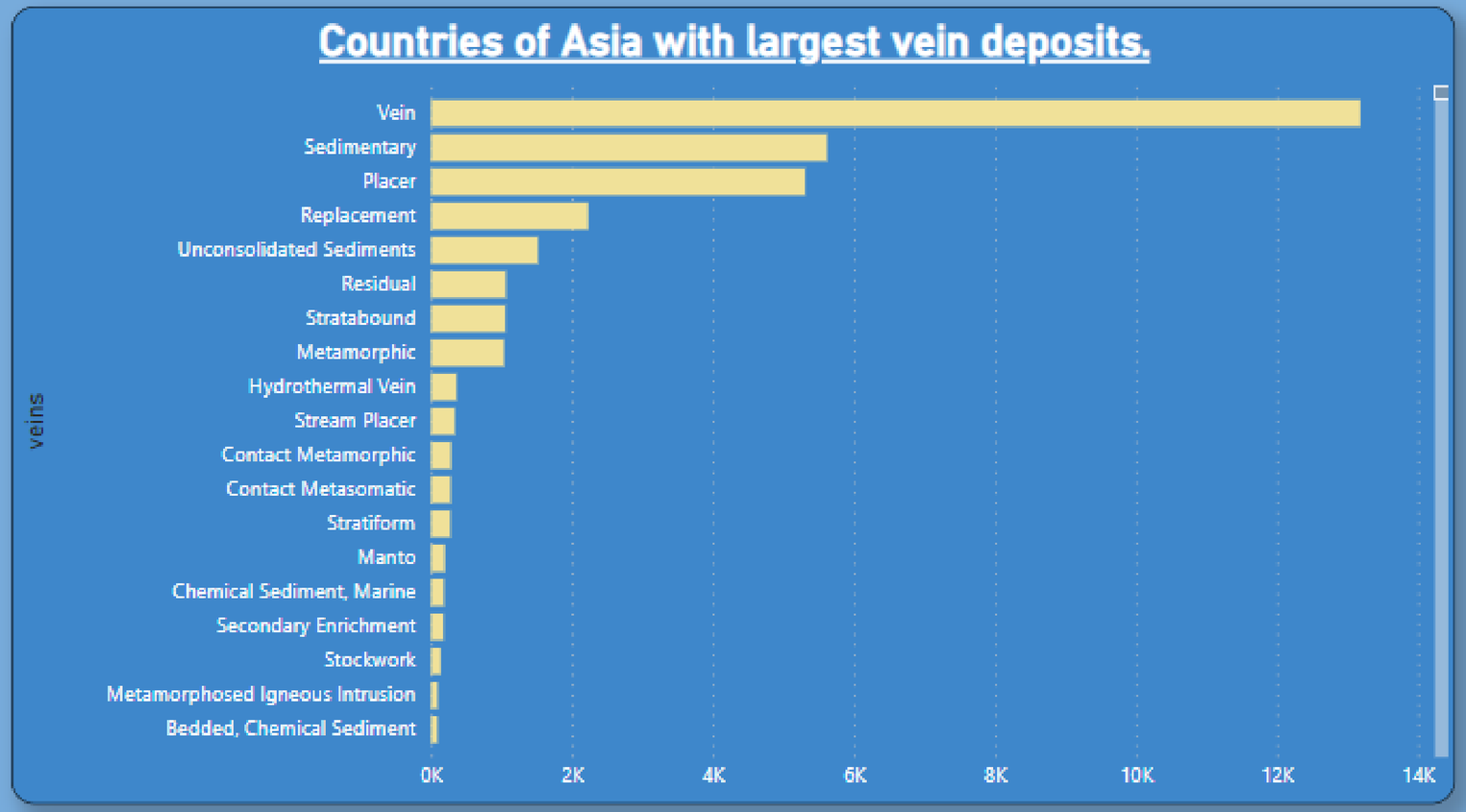
The countries of Asia with largest vein deposits



Ask a question about your data

Try one of these to get started

- how many names are there
- how many gangues are there
- most recent gold ore 2023-2010
- average gold ore 2023-2010 high
- total copper ore 2023-2010 price

Show all suggestions

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QUESTION 01

- Mention the minerals that are abundant in US when compared with all the remaining counties combined together that can be mined in future.

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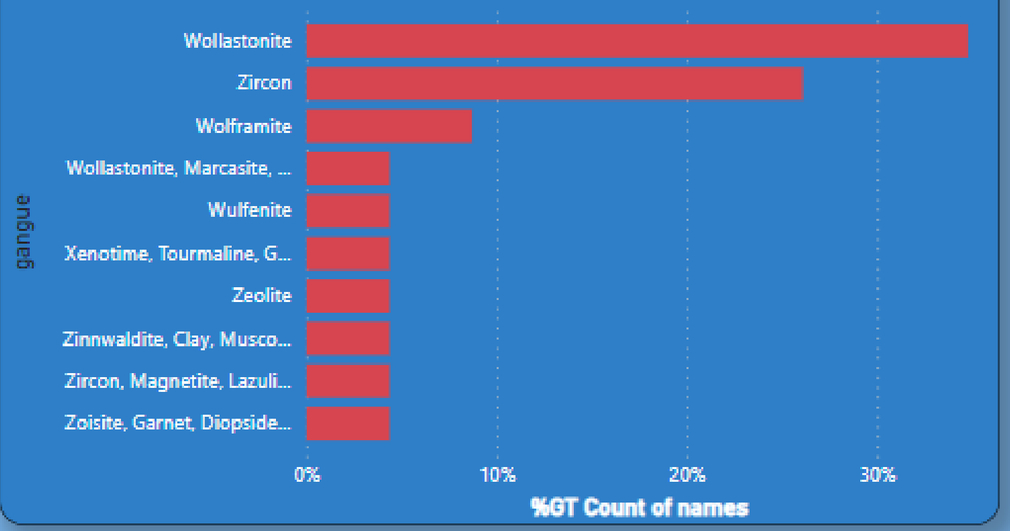
Mentioned the minerals that are abundant in US when compared with all the remaining counties combined together that can be mined in future.

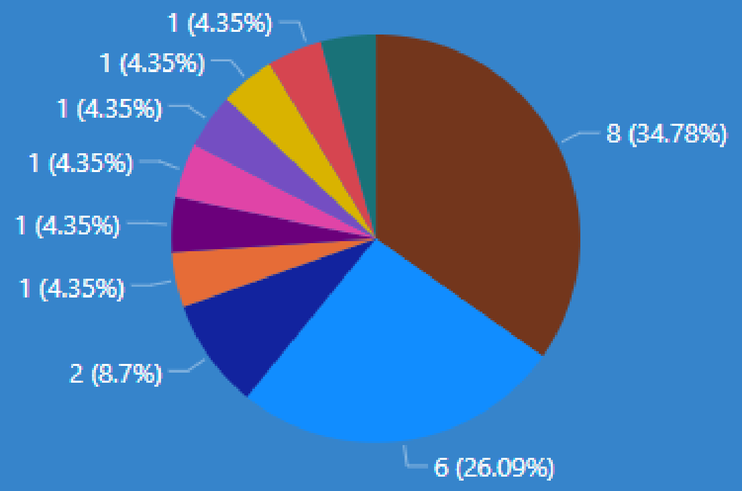
Select Country

United States

Minerals that are abundant in US



Country by gangue



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QUESTION 01

- What percentage of metallic commodities exist in the continent of North America that can be mined using surface mining techniques and where the country rocks are sedimentary in nature.

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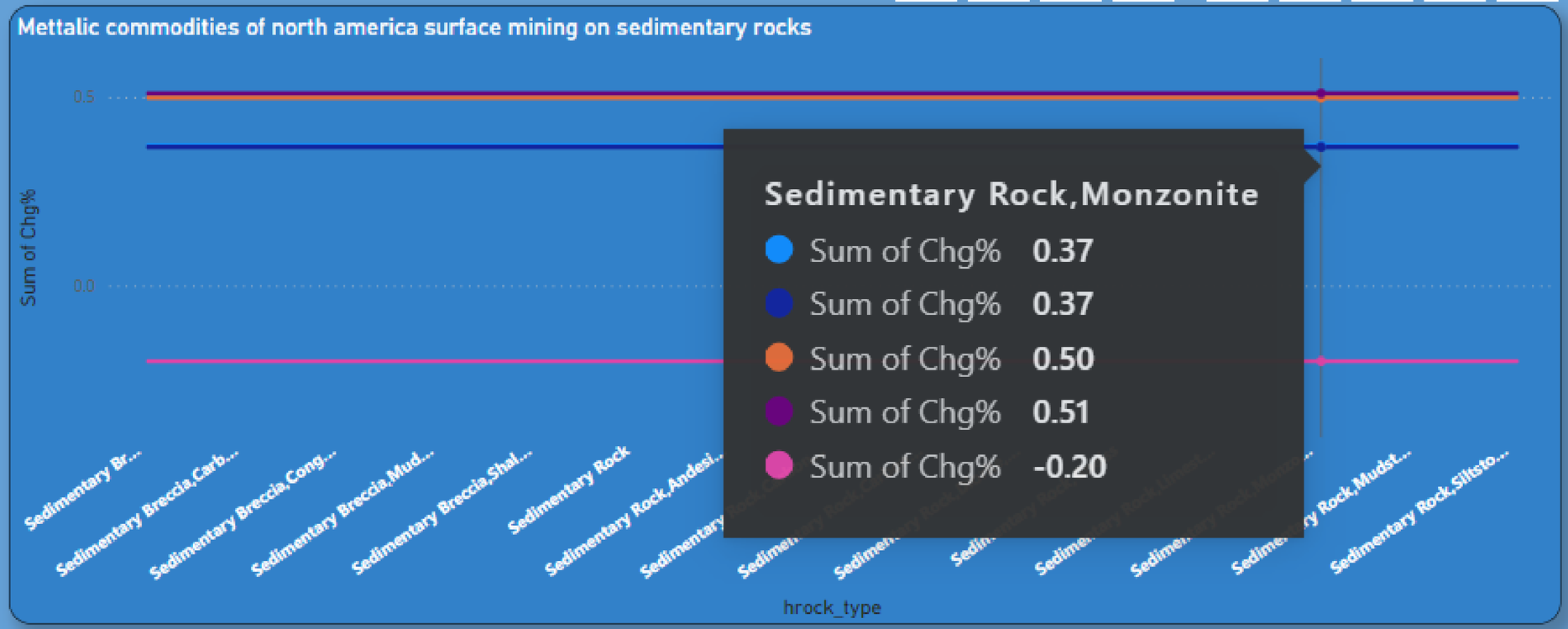
Percentage of metallic commodities exist in the continent of North America that can be mined using surface mining techniques and where the country rocks are sedimentary in nature.



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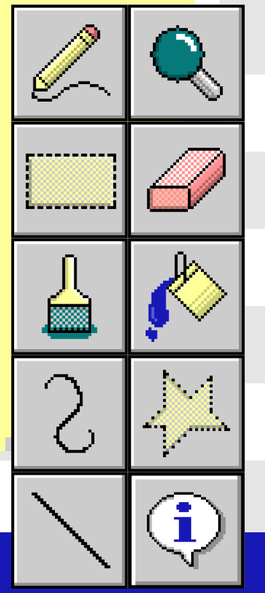
QUESTION 02

- Design a world map that locates the states of the world where gold is he most abundant mineral that can be mined in future.



PowerBI

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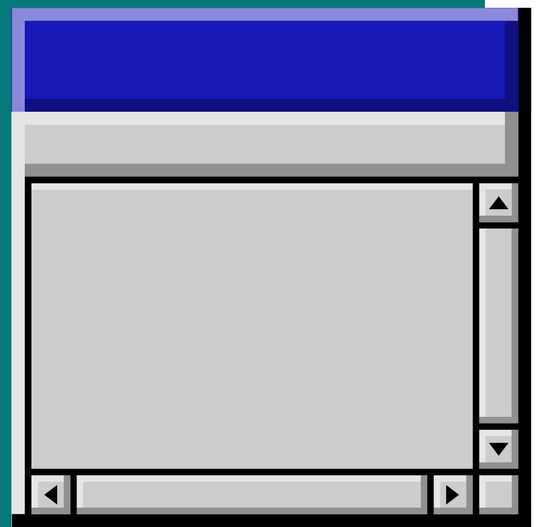
Start

No



Safety Data Analytics

Design a world map that locates the states of the world where gold is he most abundant mineral that can be mined in future.

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QUESTION 03

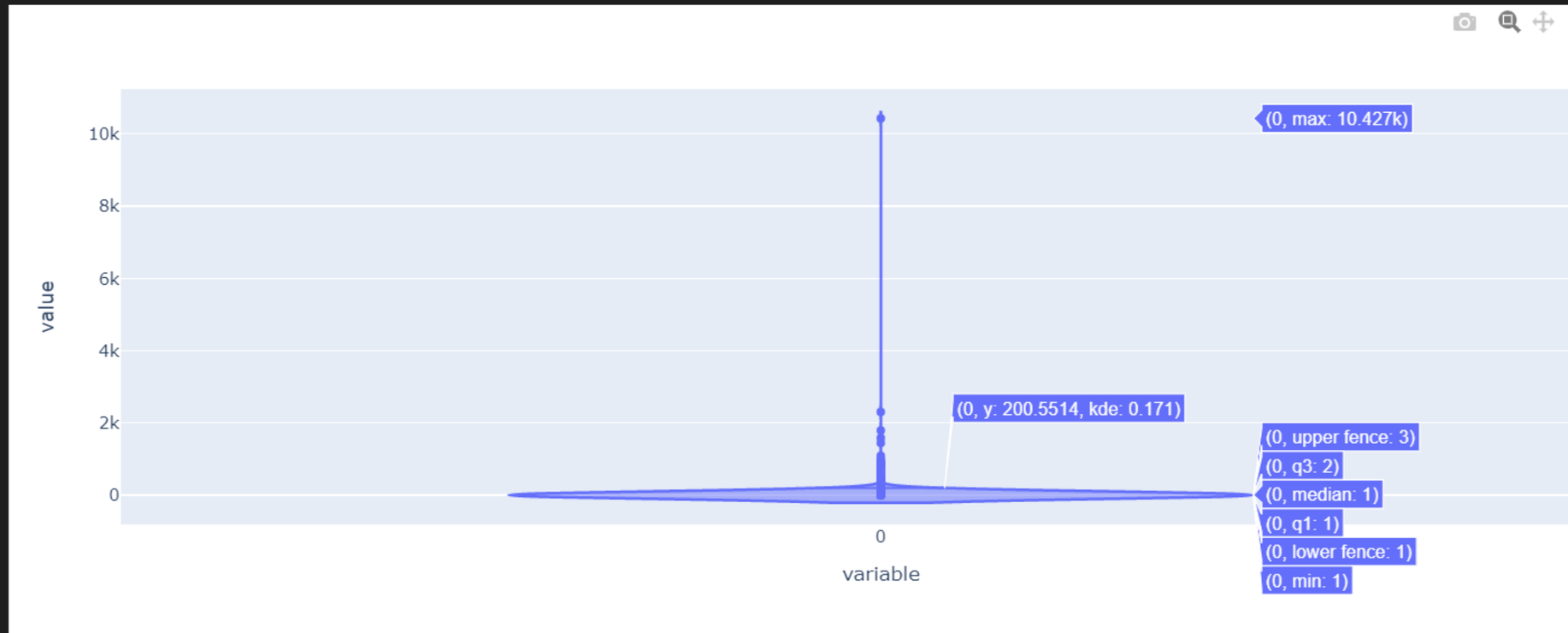
- Continent wise ore minerals that are mined in present time.
- Top five country rocks associated with ore minerals in India
- c. By-product minerals recovered from the US states where gold and copper areabundant.

A --> Continent wise ore minerals that are mined in present time.

```
count_ore=data_frame.value_counts('ore')
count_ore
```

```
ore
Gold                                                10427
Sand and Gravel                                      2305
Chromite                                             1792
Limestone                                            1585
Galena                                               1445
                                                    ...
Brannerite, Uraninite
Brannerite, Parisite, Uraninite, Xenotime
Brannerite, Galena, Parisite, Uraninite
Brannerite, Galena, Monazite, Parisite, Thor
Zoisite
Length: 9825, dtype: int64
```

```
px.violin(count_ore)
```



B --> Top five country rocks associated with ore minerals in India

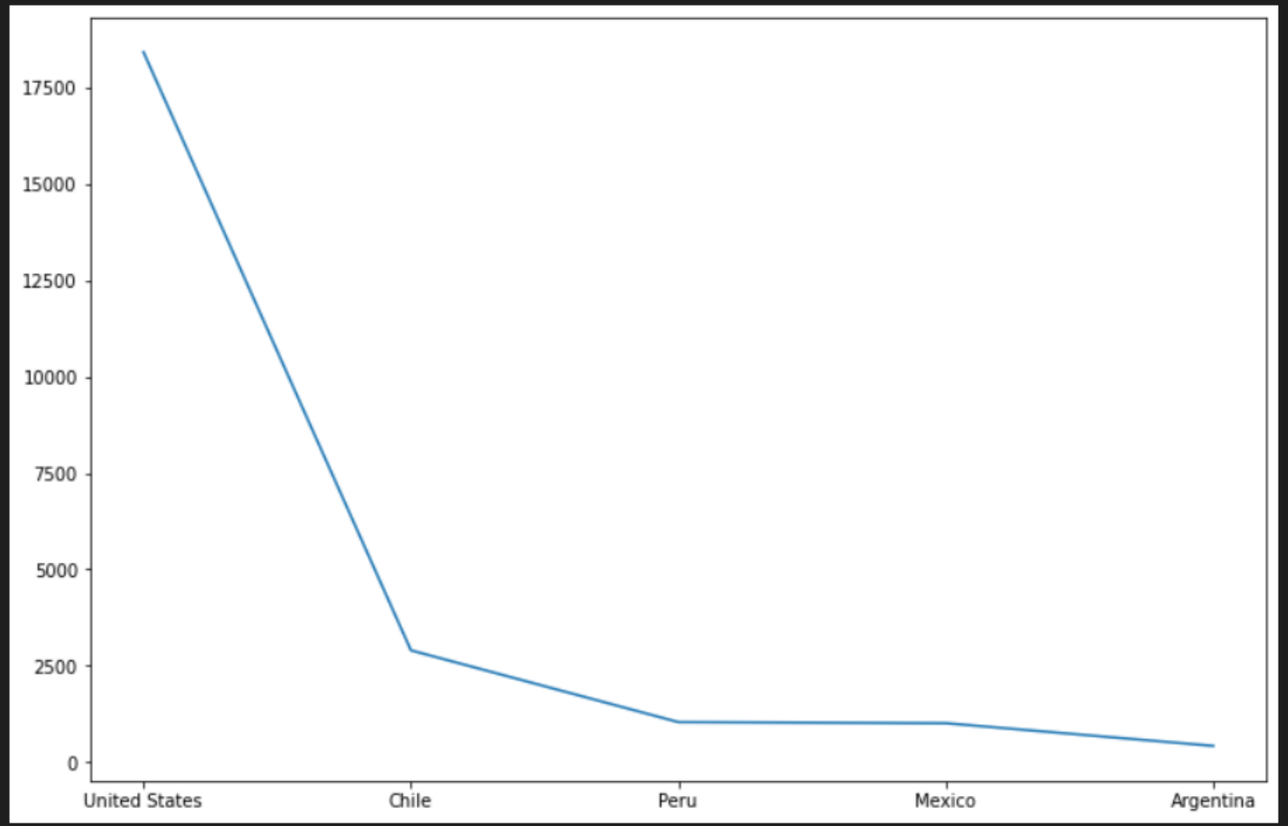
```
counts = data_frame.groupby('country')['arock_type'].count()
sorted_counts = counts.sort_values(ascending=False)
top_five = sorted_counts.head(5)
print(top_five)
```

```
country
United States    18423
Chile             2901
Peru              1039
Mexico            1011
Argentina          422
Name: arock_type, dtype: int64
```

```
plt.figure(figsize=(12,8))
plt.plot(top_five,label="country")
```

✓ 0.2s

```
[<matplotlib.lines.Line2D at 0x2539fc5e760>]
```



C --> By-product minerals recovered from the US states where gold and copper are abundant

```
states = ['United States', 'Chile', 'Peru', 'Mexico', 'Argentina', 'India']
filtered_df = data_frame[data_frame['state'].isin(states)]
x = filtered_df[['state', 'ore']]
counts = x['state'].value_counts()

sorted_counts = counts.sort_values(ascending=False)

print(sorted_counts)
```

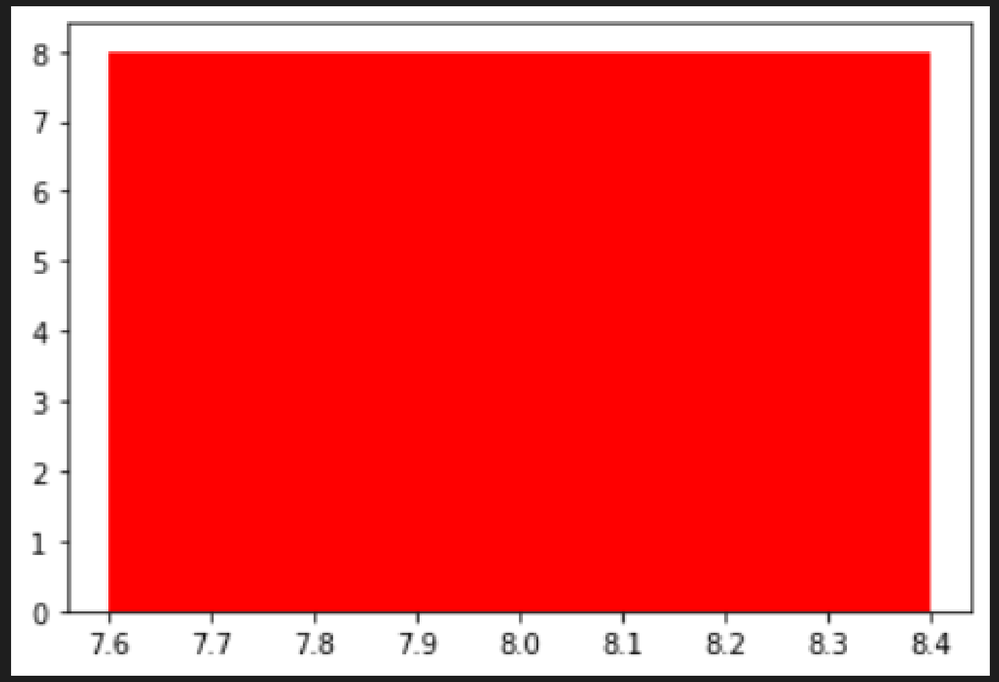
✓ 0.0s

```
Mexico    8
Name: state, dtype: int64
```

```
plt.bar(sorted_counts,counts,color='r')
```

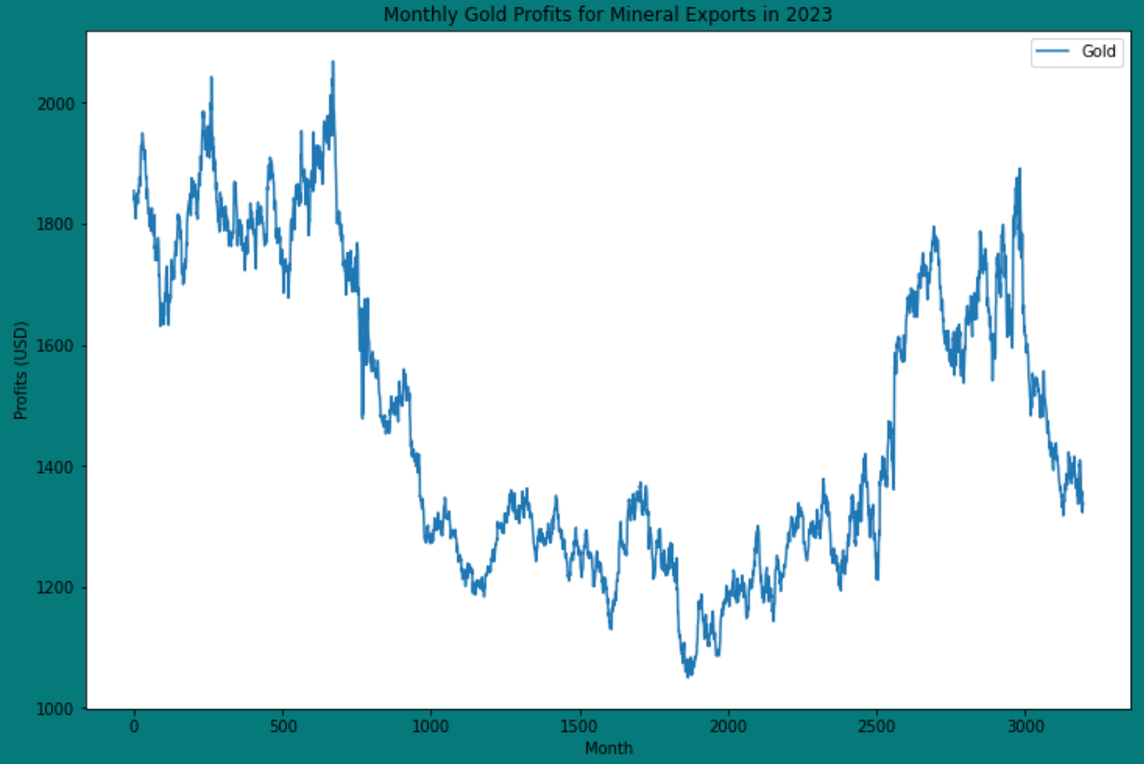
✓ 0.2s

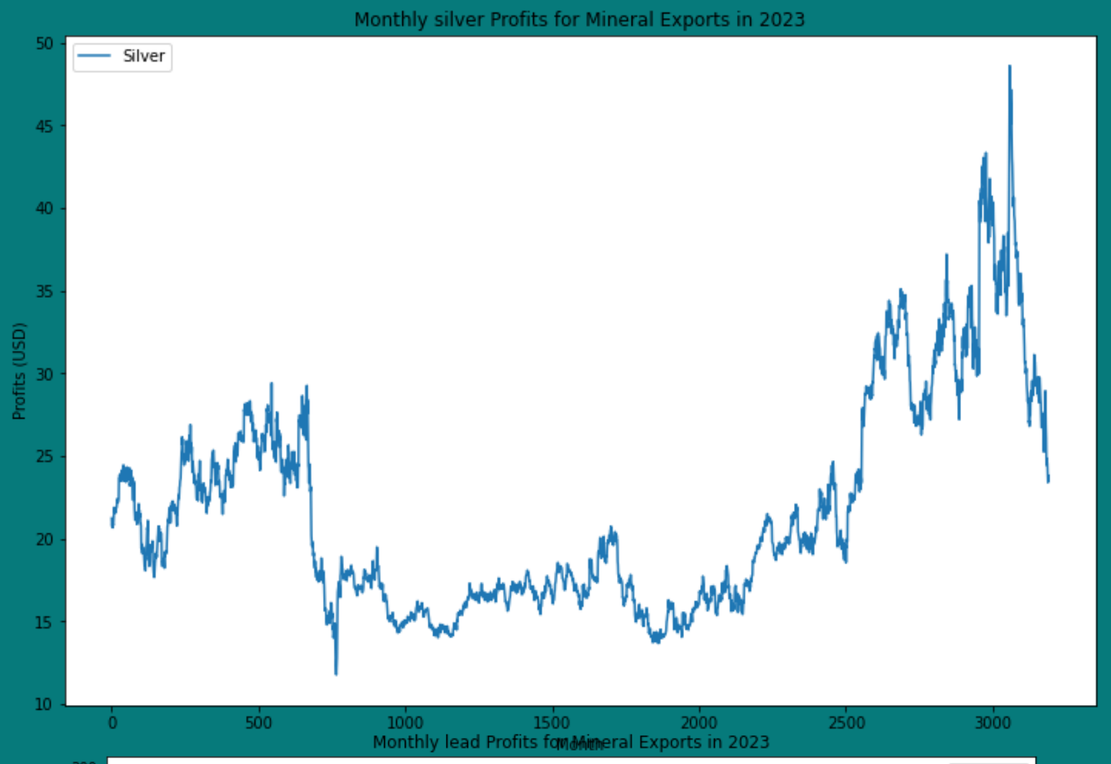
```
<BarContainer object of 1 artists>
```

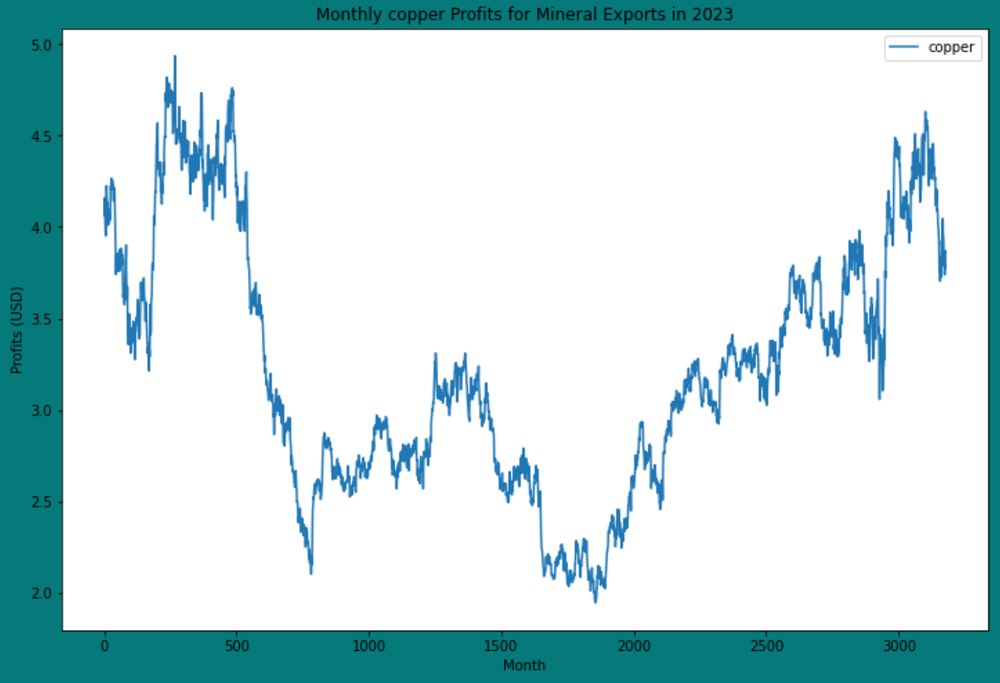


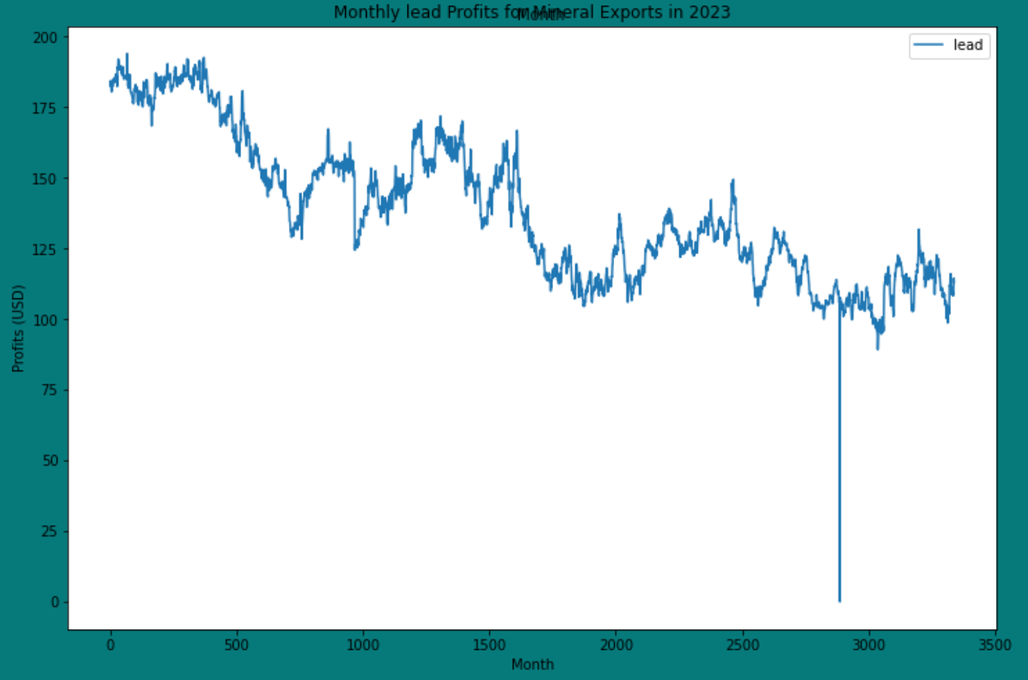
QUESTION 04

- Predict the months of 2023 where export of the minerals: gold, silver, copper, lead and iron will yield maximum profits in a visual format.


Monthly Gold Profits for Mineral Exports in 2023
Gold
Profits (USD)
Month

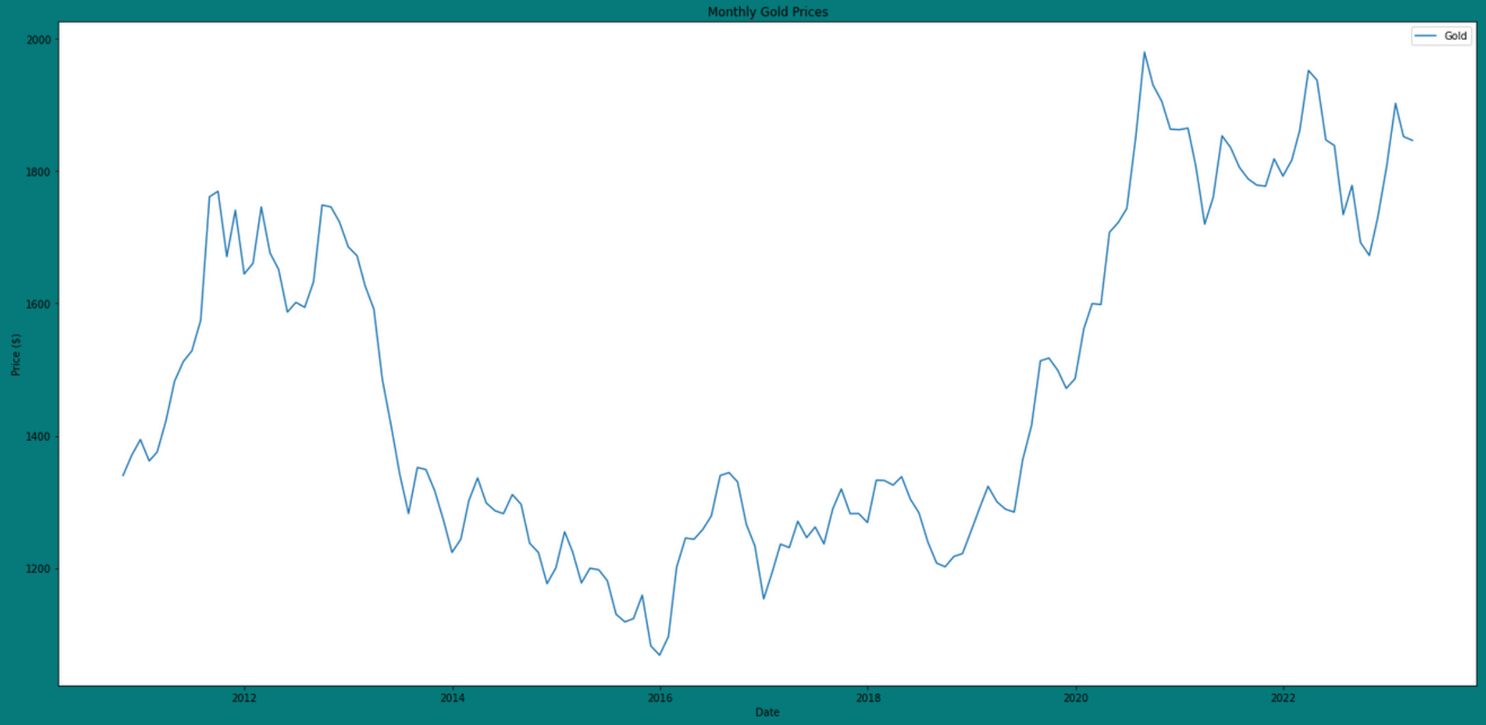

Monthly silver Profits for Mineral Exports in 2023
Silver
Profits (USD)
Month

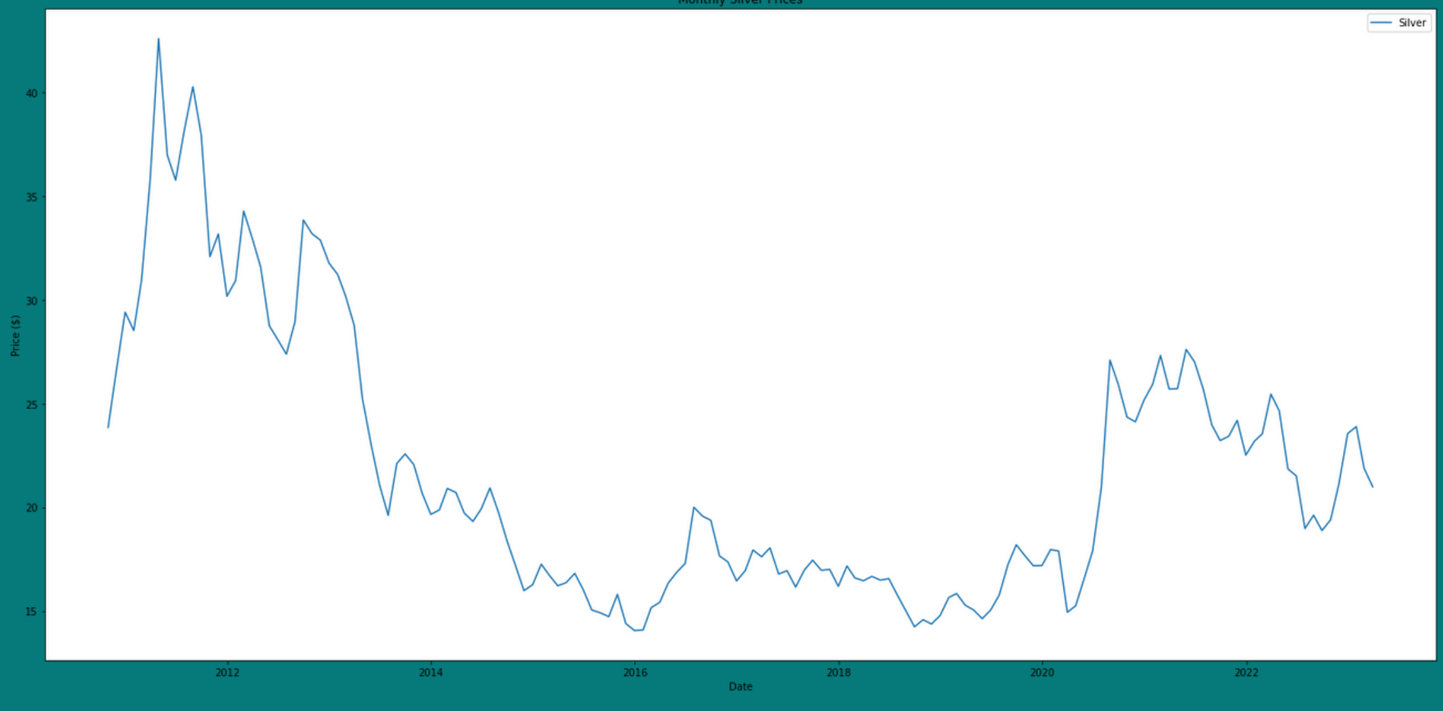

Monthly copper Profits for Mineral Exports in 2023
copper
Profits (USD)
Month

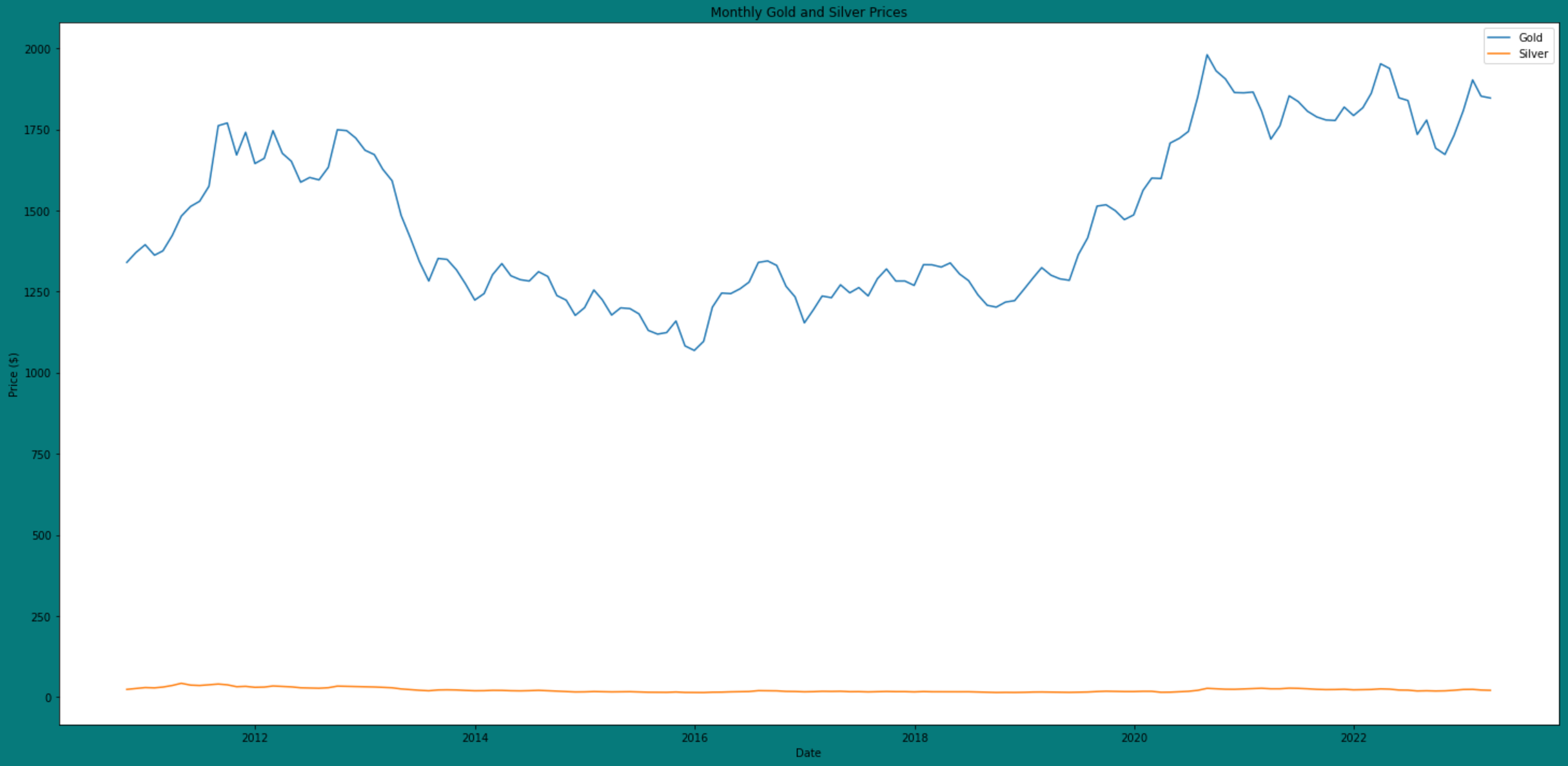

Monthly lead Profits for Mineral Exports in 2023
lead
Profits (USD)
Month

QUESTION 05

- Predict the monthly variations in price of gold and silver with clear demonstration of the price curves.


Monthly Gold Prices
Gold
Price ($)
2000
1800
1600
1400
1200
2012
2014
2016
2018
2020
2022
Date


Monthly Silver Prices
Silver
Price ($)
40
35
30
25
20
15
2012
2014
2016
2018
2020
2022
Date


Monthly Gold and Silver Prices
Gold
Silver
Price ($)
2000
1750
1500
1250
1000
750
500
250
0
2012
2014
2016
2018
2020
2022
Date

Thank you !
TEAM --> 007