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Crypto Vision Case Study

A 10Alytics Case Study

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Data Dictionary

- **1) Date:** The date and time when the data was recorded or reported. This field will provide the temporal reference for all the other data points.
- **2) Open:** The opening price of the cryptocurrency on the given date. It represents the price of the cryptocurrency at the beginning of the trading day
- **3) High:** The highest price reached by the cryptocurrency on the given date. It represents the peak price observed during the trading day.
- **4) Low:** The lowest price reached by the cryptocurrency on the given date. It represents the minimum price observed during the trading day.
- **5) Close:** The closing price of the cryptocurrency on the given date. It represents the last traded price of the cryptocurrency for that particular day.
- **6) Adj Close:** The adjusted closing price of the cryptocurrency on the given date. The adjusted close accounts for corporate actions, such as dividends or stock splits, and provides a more accurate representation of the cryptocurrency's value.
- **7) Volume:** The trading volume of the cryptocurrency on the given date. It represents the total number of units of the cryptocurrency traded during the trading day.

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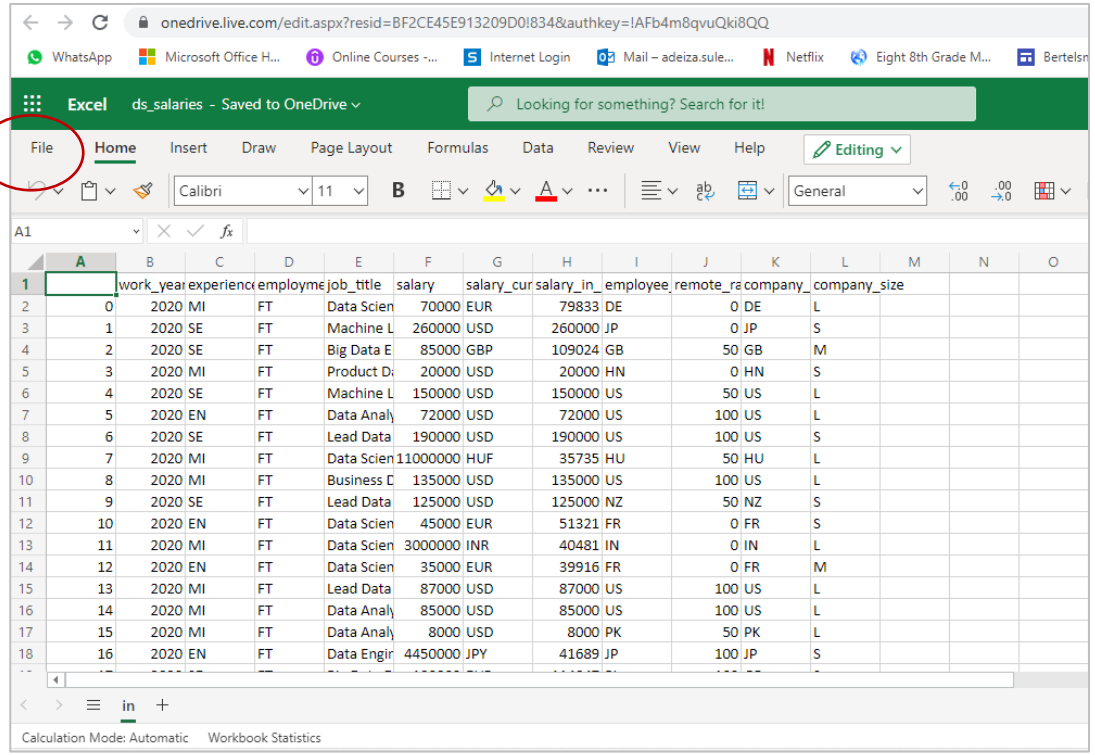
How to Download the Dataset

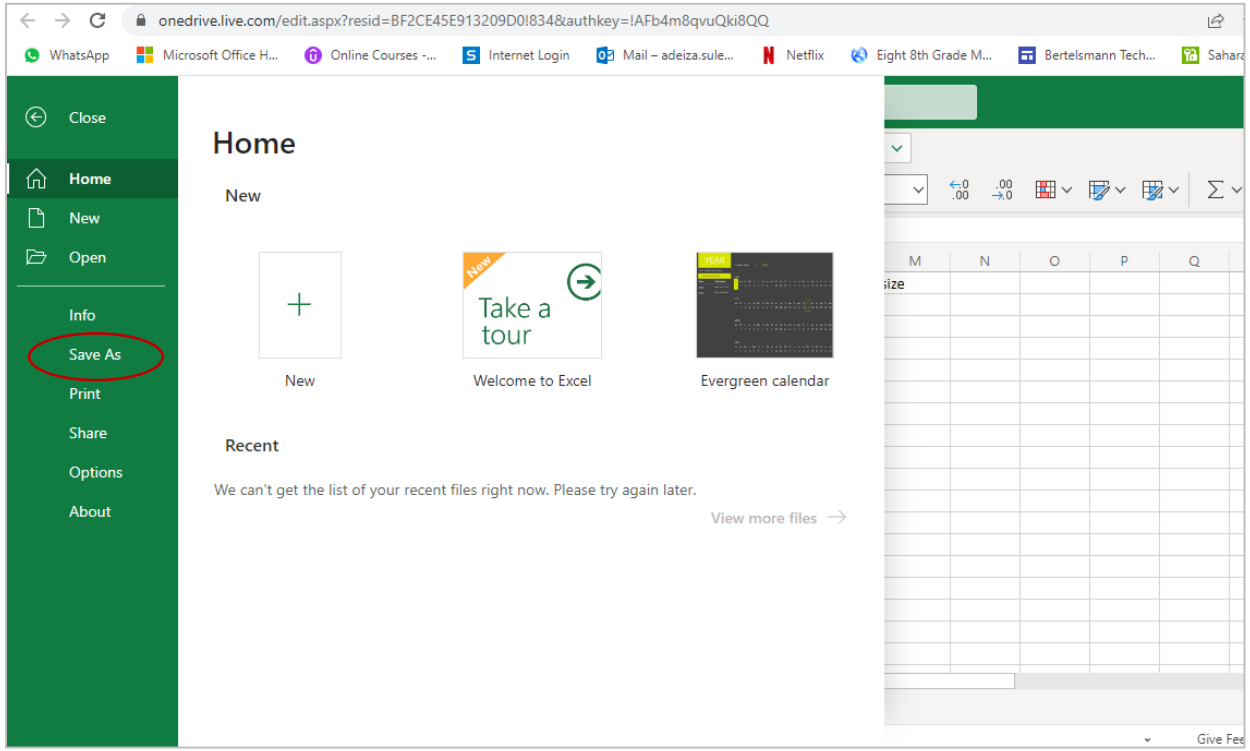
Step 1

- Download Bitcoin data- **HERE**
- Download Ethereum data – **HERE**
- Download Doge data – **HERE**
- Download Cardano data – **HERE**

Step 2



Step 3



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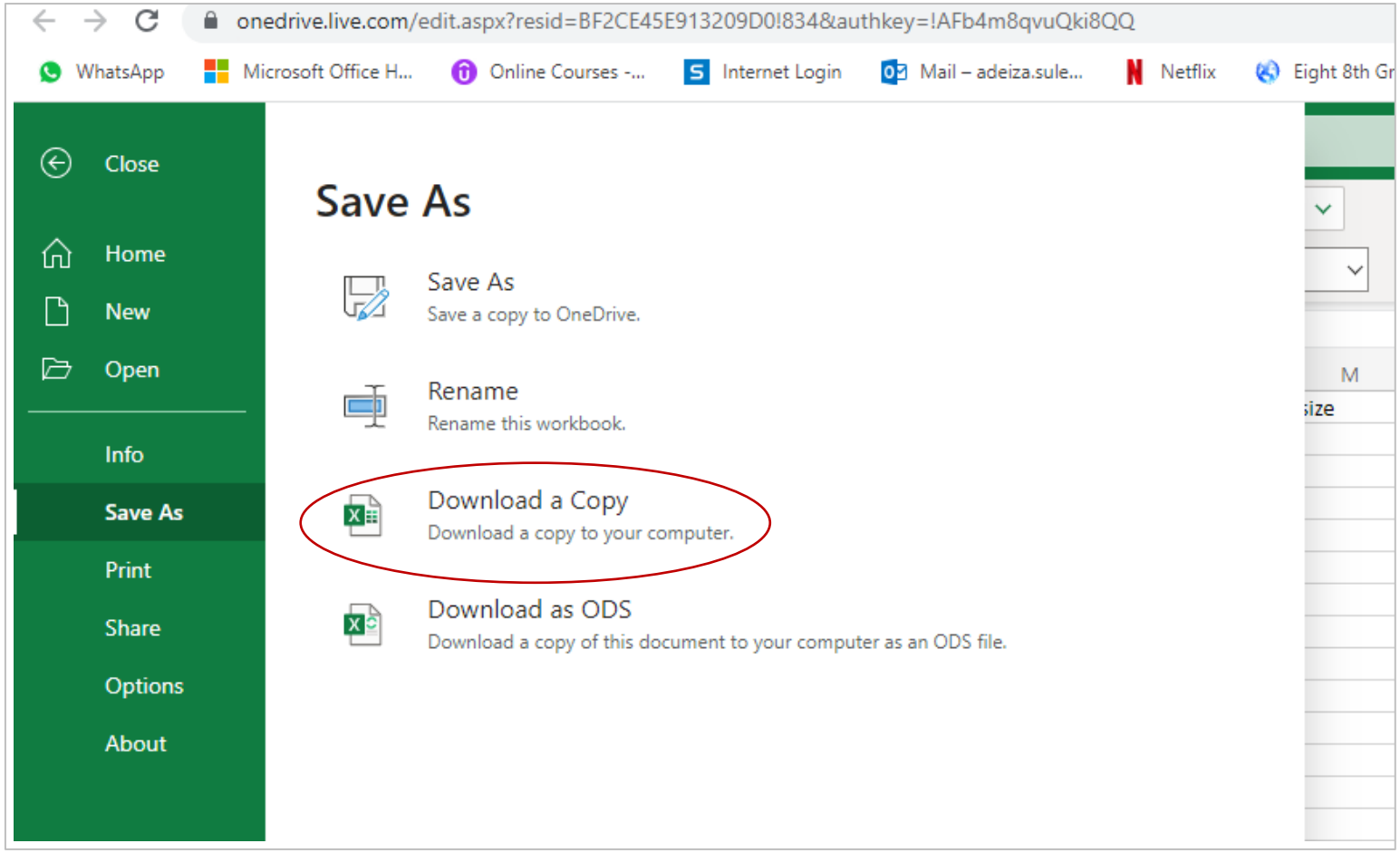
How to Download the Dataset

Step 4



Background Story

CryptoVision is a fintech startup that specializes in providing real-time insights and analytics for cryptocurrencies. With the growing interest and adoption of cryptocurrencies, investors and traders are seeking reliable platforms to track and analyze the performance of various digital assets.

CryptoVision aims to cater to this demand by offering a comprehensive and user-friendly Power BI dashboard that provides valuable insights into four popular cryptocurrencies: ADA, BTC, DOGE, and ETH.

AIM

The aim of this project is to develop a powerful and intuitive PowerBI dashboard and empower you with practical experience, where you'll consolidate your knowledge and build upon your Power BI skills.

Objectives

1. **Consolidate on Skill**: You will have the opportunity to showcase your proficiency in data processing, data modeling, and Power BI visualization techniques.
2. **Presentation Skills**: The project will require you to present your insights and analysis in a clear and compelling manner, focusing on effective data storytelling.
3. **Build Additional Skills**: You will gain experience in the crypto market, learn about cryptocurrency data, and develop expertise in using Power BI for financial analysis.

Key Considerations

1. **Data Collection and Consolidation:** You will collect historical cryptocurrency data from 2018 till date for ADA, BTC, DOGE, and ETH from Yahoo Finance

2. **Data Modeling and Transformation:** You will perform data cleaning, filtering, and transformation to prepare the data for analysis and visualization.

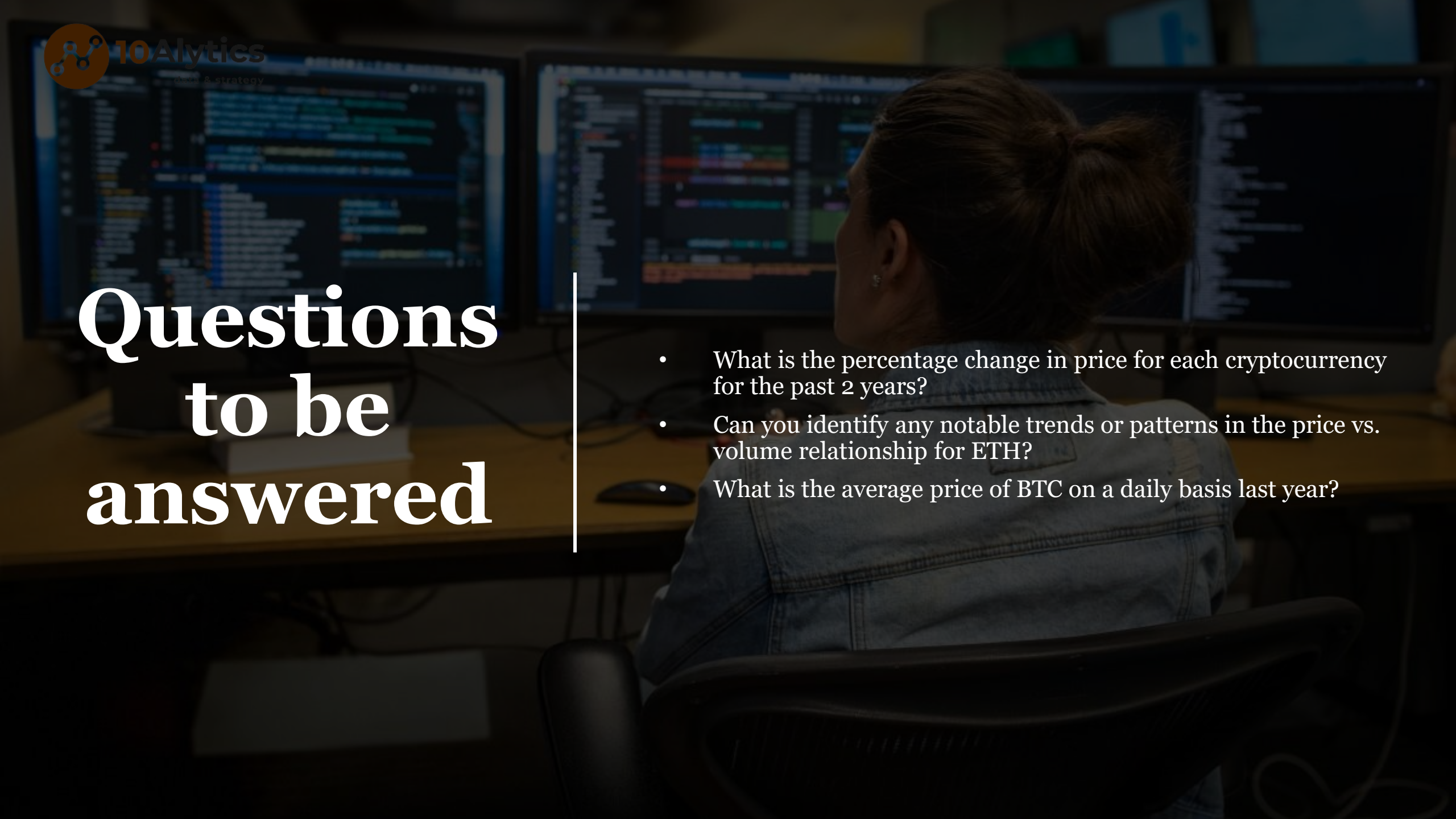
3. **Visualization Design:** You will design and implement the required visuals for an Insight and a Forecast Dashboard

4. **Data Storytelling:** You will be required to craft insightful questions that the dashboard visuals can answer effectively, enabling them to demonstrate their data storytelling skills.

Tailored Analysis

This project requires you to create an Insight and a Forecast Dashboard. Here are some of the questions to answer:

1. Visualize the Average, Max High, Min Low, and Total Volume.
2. What is the price volatility across time?
3. What is the average price across time?
4. Visualize the High and Low Prices across time for each coin.
5. Show the trend of the trading range percentage.
6. Forecast the price range and the volume of each coin in the next 2 years from today.
7. Show the relationship between Price and volume.
8. Visualize the High and Low Prices across time for each coin.
9. Show the trend of the trading range percentage.
10. Forecast the price range and the volume of each coin in the next 2 years from today.
11. Show the relationship between Price and volume.



Questions to be answered

- What is the percentage change in price for each cryptocurrency for the past 2 years?
- Can you identify any notable trends or patterns in the price vs. volume relationship for ETH?
- What is the average price of BTC on a daily basis last year?

The real magic of data lies in storytelling. As you work on this project, we encourage you to bring life to the visuals through storytelling. Here are some you could answer:

Data Storytelling Questions

1. Based on the price volatility by date, can you narrate a compelling story about a significant price swing for one of the cryptocurrencies? What external factors or events might have caused this dramatic price movement?

2. Explain the relationship between trading volume and price movements for DOGE. How do fluctuations in trading volume impact the price, and how might investors interpret these patterns?

3. You are presenting this dashboard to potential investors interested in cryptocurrencies. How would you use the visuals to showcase the growth potential and risks associated with each cryptocurrency? What key insights would you highlight to support your investment recommendations?

4. Provide a comparative analysis of the trading range percentage for BTC and ETH over different time periods. How does the volatility of these two cryptocurrencies differ, and what implications does this have for risk management strategies?

5. Analyze the data by year and identify any standout performers among the four cryptocurrencies. What factors might have contributed to the success of these cryptocurrencies, and how might they continue to perform in the future?

In Summary

Throughout this project, we encourage you to think critically, explore different angles, and craft compelling narratives around the data insights. The ability to tell a compelling story with data is a crucial skill that can set you apart as a proficient data analyst and present valuable insights to potential stakeholders.

We look forward to seeing your creativity and data storytelling skills come to life as you dive into the fascinating world of cryptocurrencies!

Good luck!

- Create a report for all analyses done. Your report should include:
  - "QUESTION TO BE ANSWERED“ and "DATA
  - STORYTELLING QUESTIONS“ and upload them to the Google Classroom
  - Pictures of your dashboard should also be included.
- Post your work on Linkedin with the Hashtag

#Analysiswith10Alytics and tag: @10Alytics.