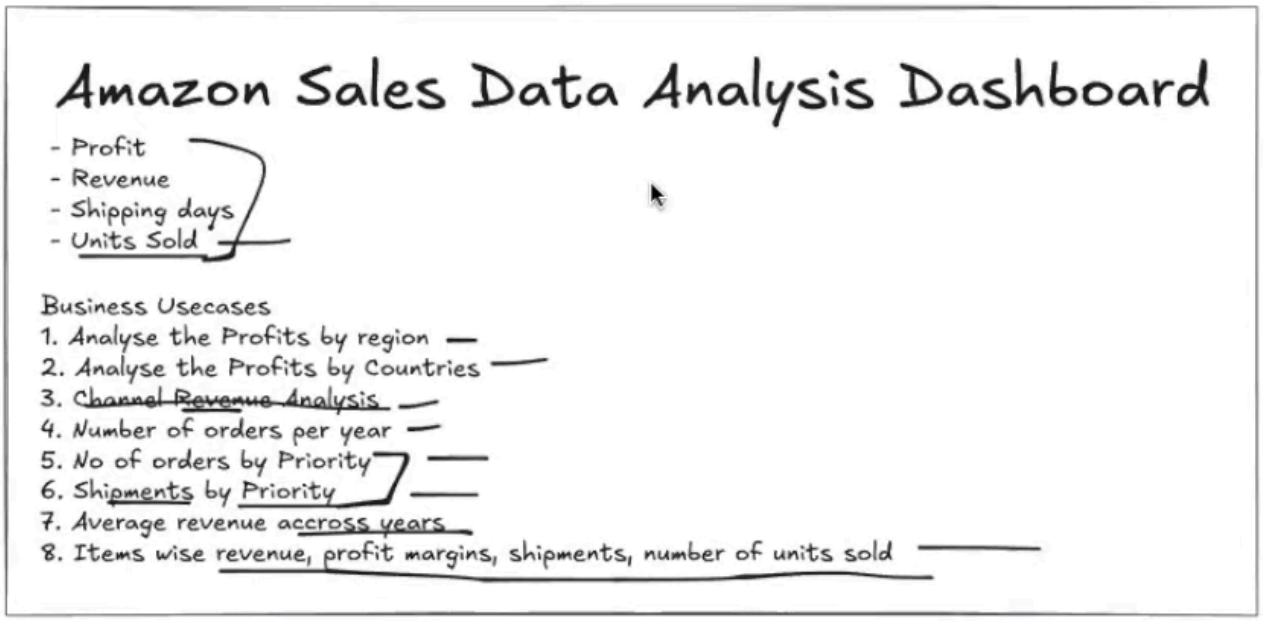
Business Problem Statement:
Stakeholders frequently articulate business problems in broad, non-technical terms, requiring a data professional to translate these into actionable analytical tasks. For instance, a request to "understand profit" necessitates the development of visualizations to track profit margins across various product lines, regions, or time periods. Similarly, a desire to "optimize sales" implies the need for a dashboard illustrating performance by sales channel, identifying top-performing channels, and highlighting areas for improvement. The core challenge is to extract precise data visualization requirements from these high-level business objectives. For these kind of questions we need to ask right questions like what could be the KPIs.

So let's say here, client wants to analyze profits, revenue generated, shipping days, no. of units/products sold, they will give a BRD (Business Requirement Document)



The audience of the dashboard can be operations people, sales people, BDE people, Product Managers or Product Analysts, or the higher authorities like CXOs or CTOs,

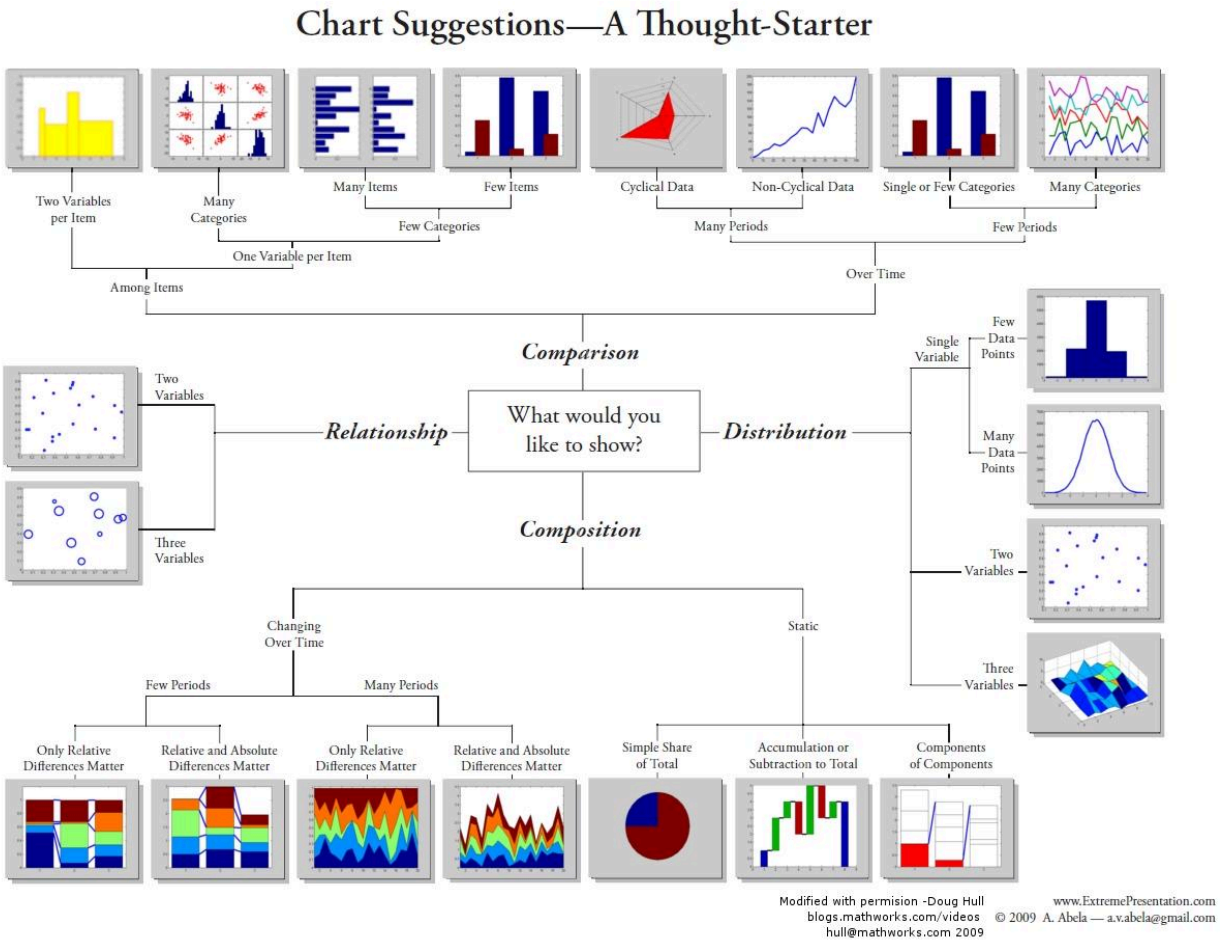
Possible business use cases from client's end:

- **Analyze the profits by region or country wise**
- **Channel Revenue Analysis**
- **Number of Orders per year**
- **Number of Orders by priority**
- **Shipments by priority**
- **Average revenue across years**
- **Items wise revenue, profit margins, shipments, no. of units sold**

Step 2: Creating a **Wireframe** (Deciding what charts, how to use, from simple BRD diagram).
It's a great practice to create wireframes before building the dashboard in order to save the time.

Because, if we build dashboard directly and the client will refuse it, then it will be a waste of time. So, to avoid this wireframes are essential before building a dashboard. In dashboarding, wireframes are essentially blueprints that outline the structure, layout, and functionality of a dashboard before any visual design or development work begins. It's just like in software development, a **mockup** is a static, visual representation of a user interface (UI) that shows the look and feel of a product, but it's not yet functional

Step 3: Dashboard layout. Header should be the company name. Building dashboard. In order to find profits, we will create this KPI as we don't have any column called profit. Now the question is which chart should we use in this case? Here, we will use bar chart because it helps in comparing one thing with another and in general if there are <10 categories, we can prefer using bar charts. If we are using bar charts in more than 10 categories, we have to scroll a lot. And, it's also recommended that if there are any countries categories, we can use maps which is visually appealing. And, user will be able to find insights quickly as well. It is also usually recommended to use pie chart or donut charts when we are dealing with <=4 features or categories for visually appealing.



This is the chart chooser we can take help from. (Link: https://datavizblog.com/2013/04/29/andrew-abelas-chart-chooser/)

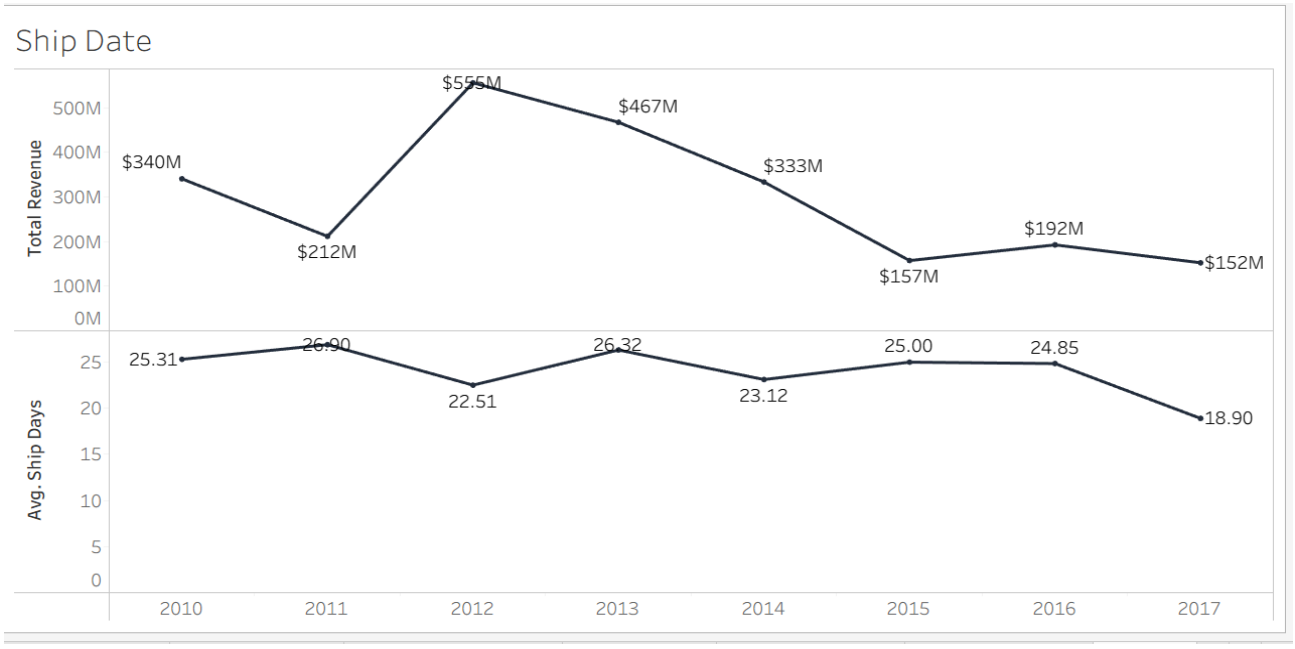
Step 4: No. of orders per year, we have to calculate. But, we can see, in the dataset, we don't have any no. of orders column right? So, we have to manually create a column. We need to create a KPI for this. **(Note: Whenever you are analyzing something over time, use line charts over bar charts because line charts are built for this purpose)**

Step 5: Then I am calculating, shipments by priority, Revenue, Shipment Days, Units Sold, Profit by Regions, and Profit wise countries. One thing I learned here is how we can add any KPI that is not present in the BRD or from the client requirements. For example, Shipment days is not mentioned directly in the requirements. But we know that shipment days = shipment date - order days (basically how long they are taking to deliver the product to your home address). An analyst can create own formulas but we can ask directly to the client about the KPI which is not mentioned.

Step 6: Next is profit by countries. So, here in this case we need a map. And, whenever we creates map, we need 2 things - latitude and longitude. (**NB:** Tableau is smart enough to detect if there is any country column or anything related to that; it will automatically generates latitude and longitude for that particular country.

Step 7: In the dashboard part, remember never use short forms in the dashboard otherwise it will raise a lot of questions from a stakeholder point of view.

There is an option in every chart as “Use this as filter”. If we are clicking here, what will happen is that if we click on any one section, the entire dashboard will act accordingly. Suppose, if we select Sales in India section (any specific bar), it will show what profit has been generated, how many orders have been placed, how many shipments done in India, it will show every stats in India.



Here, in this case, the chart starts from 0, and we can see there are no shipment days that start from 20+ average days. So, we don’t need those. So, we deleted those ranges. **Another Rule of Thumb is that** always use the bar chart in either descending order or ascending order,

because it will help the stakeholder or the user to quickly find who was the top performer and the low performer.