

	Detail	Hint	Answer
Step 1 - Empathize	Stakeholder Challenge	What are stakeholder want to solve ? What are their problems?	<ul style="list-style-type: none"> - Overview the sale's information - Expand market share - Decide strategic products
	Dashboard Goal	Which is the target of the dashboard?	<ul style="list-style-type: none"> - Overview the sale's information by country -> idea about market to expand - Sale situation in each market and decide which market should be expanded - Sale KPIs relate to products to decide which is strategic products
	Stakeholder	Who will directly use this dashboard	Senior Manager => Using Strategic Dash Board
	Empathize dataset	What are dimension, measure - Dimension - Measure	<ul style="list-style-type: none"> - Orders: Dimension: Order Date, Ship Date, Ship Mode, Customer ID, Segment, City, Country, State, Market, Product ID, Category, Sub-Category, Product Name, Order Priority. Measure: Sales, Quantity, Discount, Profit, Shipping Cost. - People: Dimension: Salename, Region - Return: Dimension: Market, order_id
	Clean dataset	<ul style="list-style-type: none"> - Does it have null value? - What are outliers? - Are they in the right type ? - ... 	<ul style="list-style-type: none"> - Null: Only have in Postalcode, it is not important to solve the problem. - Outliners Profit: have numerous products which have negative profit, it can be sold for liquidation. Need to be reconfirmed. - Don't have duplicate data - Change all data in right type
Step 2: Define point of view	Top Down	Place yourself as stakeholder, us logic tree or brainstorming question list to list down important question you want to answer.	Using logic tree to solve the problem: - Overview sale information: Total Sale, Profit, Quantity, Order, Return Rate - Marketshare expand (increase sale in market): Analyze current sales data and growth trends for different regions. Evaluate demographics, purchasing power, and cultural preferences in each region. Identify regions with the highest growth potential and demand for retail products. - Strategic Product to increase sale quantity: Pricing and Promotion Strategy: Dynamic Pricing: Utilize dynamic pricing algorithms to optimize base on demand, competition and customer behavior; Offer personalized discounts and promotions to loyal customer to enhance retention. Seasonal Promotion: Design seasonal promotions to capitalize on peak buying period; Utilize social media and email marketing to create awareness and drive traffic during promotional events. Product Assortment and Mechandise: Optimize product mix: Using historical data to identify top-selling products and focus promote on them; Identify underperformance product and consider repositioning or discontinuing them Improve Merchandise and Product display: Using historical data to understand customer behavior and preference, place high margin strategically
	Bottom Up	From dataraw, decide key dimension, key measure and then create layer 0, layer 1, layer 2 in ideation.	<ul style="list-style-type: none"> - Overview sale information: Total Sale, Profit, Quantity, Order, Return Rate, Sale, Profit by Month, Return rate by month - Marketshare expand: Key dimension: Country, Segment, Market Sub dimension: Shipping Type, Time Series Key metric: Total Sale, Quant Sale, Return number, count distint customer ID, shipping cost, avg DateDiff (Ship date và Order Date), avg bucket amount, profit margin each customer by market, Customer increase rate, - Strategic Product Key dimension: cat, sub_cat, Product Name, Product_id Sub dimension: Market, Time series Key metric: total sale by cat and sub_cat, top sale amount, high quant sales, low quant sale, Profit margin by cat and sub_cat, high margin product, low margin product.
		- List down key metrics follow layers 0, 1, 2,...	
		Layer 0 dimension: Score card	Total Sale, Total Profit, Total Return, Total Quantity

Step 3 - Ideate	List down Key metrics	Layer 1 dimension:	<ul style="list-style-type: none"> - Return Rate by Month: line chart - AVG shipping fee by country - Shipping type proportion: Pie chart - Avg Shipping time by shipping type - Number of customer by Month - Number of customer by Market - Number of customer by Segment - Sale by month with top 3 market - Sale proportion by category - Profit proportion by category - Order proportion by category
		Layer 2 dimension	<ul style="list-style-type: none"> - Sale by country with size by Sale and color by profit - Sale and profit margin: barchart dual line chart - Customer amount by market và segment: stack barchart - Bucket Amount and Profit by Market
		Table	<ul style="list-style-type: none"> - Market table: Country, Avg sale a cus, avg profit a cus, avg items per cus - Sale by Subcat and cat with high sale and high profit - Low sale and profit product
	Divide page layout by layer from noteworth KPIs to more details	Divide page layout by layer from noteworth KPIs to more details. Each page should represent its purpose	Devide into 3 report pages: <ul style="list-style-type: none"> - Sale Overview and Important Details - Customer Insights by Market: with Important Details and Teriary Info - Product Insights: with Important Details and Teriary Info
Step 4 - Prototype	Create complete dashboard	<ul style="list-style-type: none"> - Choose chart fit with question - Choose color for dashboard 	This section is shown in Dashboard
Step 5 - Review	Review and update	<i>Always remember that next dashboard can better 10 times than the first one</i>	This section is shown in Dashboard