	Detail	Hint	Answer
Step 1 - Empathize	Stakeholder Challenge	What challenge are stakeholders trying to solve?	Stakeholders want to understand the current business situation to decide on the market expansion and product strategy plans
	Dashboard Goal	What is the goal of this dashboard?	The dashboard aims to: 1. Provide information on the company's business situation in the 2011-2015 period in each region/market/product category via growth indicators (revenue, profit, profit margin, growth rate,...) 2. Identify prominent markets/products in each region/product category
	Dataset understanding	Identify dimensions and measures: - Dimensions contain qualitative values such as names, dates, or geographical data - Measures contain quantitative values that you can measure. Measures can be aggregated	1. Dimension: Order ID, Order date, Ship date, Ship mode, Customer ID, Customer name, Segment, City, State, Country, Postal code, Market, Region, Product ID, Category, Sub-category, Product name, Order priority, Returns 2. Measure: Sales, Quantity, Discount, Profit, Number of items, Shipping cost
	Dashboard audience	- Who is the dashboard audience? - What does the audience want to gain from the dashboard?	1. Audience: Senior Managers of Global Superstore X 2. Audience expectation: Have an overview of business situation to identify which markets and products the company should focus on

	Dataset cleaning	Suggested questions to consider:
		- Are there many null values?
		- Are there outliers/anomalies?
		- Is the data type accurate?
		....
			1. Orders table
			- Change data type (Ship date, Order date: Date; Sales, Profit, Shipping cost: Decimal number; Discount: Percentage;...)
			- Postal Code columns have a large number of null values (81%)
			  -> Check with DA team
			2. Returns table
			- Promote first row as Headers
			- Order ID column has 1 duplicate value: Order ID US-2014-136679 appears in 2 different countries (US and Mexico), at 2 different time points (11/15/2014 and 6/4/2014), with 2 different customers
			  -> Check with DA team
			3. People table
			- Promote first row as Headers

Step 2: Define point of view	Top Down	From the stakeholders' standpoint, list down important questions (suggested approach: logic tree, brainstorming question list)	1. How was the company business situation? - Total sales, Gross profit, Gross profit margin, Total customers, Revenue CAGR, Revenue YoY growth? - Average revenue per customer, Average shipping time, Average order value, Return rate? 2. Which markets were the main sources of revenue? Which markets had huge potential for further development? Were there any products that record high sales in only some specific markets? 3. Which product categories/products were the main sources of revenue? Which product categories/products had huge potential for further development? Were products within top 5 highest sales seasonal?
	Bottom Up	From raw data, identify key dimensions and key measures, which will then form layer 0, layer 2, layer 2 in Step 3 - Ideate	1. Key dimensions: Ship date (Year, Quarter), Ship mode, Segment, City, State, Country, Region, Category, Sub-category 2. Key Measures: Total sales, Gross profit, Gross profit margin, Revenue CAGR, Revenue YoY%, Total customers, Return rate, Average revenue per customer, Average order Value, Average shipping days,
Step 3 - Ideate	List down key metrics	Layer 0 dimension: Scorecard	1. Total sales 2. Gross profit 3. Gross profit margin 4. Return rate 5. Revenue CAGR 6. Revenue YoY% 4. Total customers 6. Average revenue per customer 7. Average order value 8. Average shipping days
		Layer 1 dimension	1. Sales by segment 2. Sales by category 3. Sales by shipping Mode 4. Sales by salesperson 5. Sales and profit by year
		Layer 2 dimension	Top 5 products by sales, Top 5 cities by sales (with profit and profit margin)
		Table	Category, Sub-category, Market, Country, Total sales, Gross profit, % Total sales
	Dashboard lauout	Layout for each page of dashboard. There is no limit on the number of pages, but make sure that each page serves a specific goal and all contribute to the main goal of the dashboard	1 page, from overview to detail - Dashboard title on the top left - Drop-down slicer on the top right - Scorecards on the left first and second rows - Sales breakdown by various dimensions on the right first and second rows - Sales vs. profit by category and market, Top 5 products/countries by sales on the bottom

Step 4 - Prototype	Build a complete dashboard	Suggested factors to consider: - Visualization type - Visualization size - Visualization arrangement - Theme color ...	
Step 5 - Review	Review the dashboard		