DETAILED PROJECT REPORT

Project Title: Amazon Sales Data Dashboard
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Version: 1.0
Date: 08 July 2025

🎯 OBJECTIVE

The objective of this project is to analyze Amazon's sales records to gain business insights and visualize trends in revenue, profit, product performance, and regional sales. A Power BI dashboard was created to help understand and communicate key metrics to stakeholders.

✅ BENEFITS

- Understand regional and product-based revenue trends
- Identify high-profit regions and sales channels
- Enable dynamic filtering for comparative analysis
- Reduce manual efforts with real-time, interactive dashboards

📁 DATA SUMMARY

- Source: CSV file provided (Amazon Sales Records)
- Size: ~100 records × 14 columns
- Fields: Order ID, Region, Country, Item Type, Sales Channel, Order Date, Units Sold, Unit Price, Total Revenue, etc.

🧱 ARCHITECTURE OVERVIEW

Layer	Tool Used
Data Source	CSV (Excel import)
ETL	Excel (Power Query)
Data Modeling	Power BI (with DAX)
Visualizations	Power BI Desktop
Deployment	.pbix file (offline); optionally deploy to Power BI Service

🔍 DATA CLEANING & TRANSFORMATION

- Converted text-based date columns (Order Date, Ship Date) to Date format
- Created new time-based columns: Year, Month, YearMonth
- Removed blank rows and ensured correct data types
- Created a **Date Table** in Power BI using DAX

DASHBOARD SUMMARY

Main Visuals:
- **Line Chart:** Monthly Revenue Trend
- **Bar Chart:** Profit by Region
- **Pie Chart:** Revenue by Item Type
- **KPI Cards:** Total Revenue, Profit, Units Sold, Average Unit Price
- **Slicers:** Region, Item Type, Year
- **Data Table:** Detailed view of orders

DAX MEASURES

Metric	DAX Formula Example
Total Revenue	SUM([Total Revenue])
Total Profit	SUM([Total Profit])
Units Sold	SUM([Units Sold])
Average Unit Price	AVERAGE([Unit Price])

🧪 TESTING & VALIDATION

Feature	Test Outcome
Date filtering	✅ Works via slicers
Region-based filtering	✅ Charts update on region click
Year/Month hierarchy	✅ Handled by Date Table
Missing/blank rows	✅ Removed during Power Query
Relationship setup	✅ One-to-many from Date to Sales

🚀 DEPLOYMENT

- Developed and tested using Power BI Desktop
- .pbix file exported and ready for sharing
- Optional deployment: Power BI Service (cloud-based sharing)

❓ Q & A (INSPIRED BY THE DEMO)

- **Q1: Source of Data?**
  CSV file containing cleaned Amazon sales records.

- **Q2: Type of Data?**
  Structured data: text, numeric, and date columns.

- **Q3: What was your flow?**
  Power Query → Power BI Modelling → DAX → Dashboard → Export

- **Q4: How are invalid or blank rows handled?**
  Filtered and removed during Power Query cleaning.

- **Q5: What tools were used?**
  Excel, Power Query, Power BI Desktop, DAX.

- **Q6: What's unique about your dashboard?**
  Fully dynamic visuals with slicers; time-aware analysis using a Date Table; lightweight but effective KPI monitoring.