
System Requirements Specification Index

For

Data Analysis Tool Console Application

Version 1.0

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Data Analysis Tool Console

System Requirements Specification

1 PROJECT ABSTRACT

SalesMetrics Solutions requires a comprehensive data processing application to analyze sales performance metrics across multiple regions and product categories. The company needs a Python console application that can efficiently process large volumes of sales data, calculate key performance statistics, visualize trends, and generate actionable business insights. This tool will help sales managers identify growth opportunities and make data-driven decisions to optimize their product portfolio and regional sales strategies.

2 BUSINESS REQUIREMENTS:

Screen Name	Console input screen
Problem Statement	<ol style="list-style-type: none">1. Application must process sales data by region and product2. System must calculate basic statistics (totals, averages)3. Program must identify top-performing products and regions

3 CONSTRAINTS

3.1 INPUT REQUIREMENTS

1. Data Structure:
 - Sales data organized by regions and products
 - Data provided as a nested dictionary
 - Example: `sales_data[region][product] = quantity_sold`

3.2 CALCULATION CONSTRAINTS

1. Regional Analysis

- Calculate total sales per region
- Identify highest and lowest performing regions

2. Product Analysis:

- Calculate total sales per product across all regions
- Identify top and bottom products

3.3 OUTPUT CONSTRAINTS

1. Display Format:

- Show "Sales Data Analysis Tool"
- Show analysis type and results
- Format numbers appropriately

4. TEMPLATE CODE STRUCTURE:

1. Analysis Functions:

- `analyze_regional_sales(sales_data)`
- `analyze_product_performance(sales_data)`
- `display_results(results, analysis_type)`

2. Main Section:

- `load_sales_data()`
- `display_menu()`
- `perform_selected_analysis(analysis_type)`

5. EXECUTION STEPS TO FOLLOW:

1. Run the program
2. Select analysis type from menu
3. View calculated statistics
4. Repeat with different analysis or exit