# Data Analysis Project Submission Report Template

### 1. Title Page

* **Project Title:** " sneakers\_streetwear\_sales (2022) "
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### 2. Abstract This project focuses on analyzing a sneakers and streetwear sales dataset to uncover valuable business insights. The key goal is to identify sales trends, brand performance, customer preferences, and regional demand patterns across different product types and categories. Microsoft Excel was used as the core tool for data cleaning, transformation, and visualization, enabling efficient exploration of sales metrics such as revenue, quantity sold, and payment methods. Pivot tables, charts, and dashboards were created to highlight the most profitable brands, top-selling products, and country-wise demand variations. The final outcome is an interactive dashboard that provides a clear overview of sales performance and customer behavior. This project is useful for retailers and business stakeholders to optimize sales strategies, manage inventory effectively, and make data-driven decisions for future growth.

### 3. Objectives

### The main objectives of this project are:

### Clean and prepare the raw sneakers and streetwear sales dataset to ensure accuracy and consistency for analysis.

### Formulate and answer five key business questions from the dataset, focusing on sales trends, brand performance, customer preferences, and regional demand.

### Develop a comprehensive, user-friendly dashboard that provides an interactive view of essential sales metrics.

### Utilize appropriate charts and graphs (such as bar charts, line charts, and pie charts) to effectively communicate insights and highlight patterns in the data.

### Summarize key findings and their business implications in a clear and concise manner to support data-driven decision-making.

### 4. Scope of the Project

### This project is focused exclusively on the analysis of sneakers and streetwear sales data using Microsoft Excel. The scope includes data cleaning, preparation, and visualization to ensure accuracy and clarity in the analysis. The project does not involve the use of programming languages such as Python or R, nor does it include advanced statistical modeling techniques. All work, including dataset preparation, analysis, and dashboard creation, is contained within a single Excel file for simplicity and accessibility. The analysis is limited strictly to the provided dataset, ensuring that all insights and conclusions are directly drawn from the available data without the inclusion of external sources.

### 5. Here’s a neat Tools & Technologies Used section in table format for your project:

**Tools & Technologies Used**

| **Tool/Technology** |  | **Purpose** |
| --- | --- | --- |
| **Microsoft Excel** |  | Data cleaning, manipulation, analysis, and dashboard creation |
| **PivotTables** |  | Summarizing, grouping, and analyzing sales data efficiently |
| **Charts & Graphs** |  | Visualizing sales trends, brand performance, and customer behavior |
| **Excel Functions (e.g., VLOOKUP, IF, SUMIFS)** |  | Data transformation and calculation for insights |
| **Excel Dashboard** |  | Creating an interactive and user-friendly interface for stakeholders |

### 6. Data Cleaning & Preparation

### The raw sneakers and streetwear sales dataset contained essential fields such as product details, sales information, customer demographics, and transaction data. While the dataset was generally well-structured, some preparation steps were necessary to ensure accuracy and usability for analysis.

### Initial State of the Data

### Contained columns such as *Date, Product Name, Product Type, Brand, Gender, Category, Country, Quantity, Unit Price, Amount, Payment Mode*.

### Data was structured in tabular format but required checks for consistency.

### Data Cleaning Steps

### Checked for missing values in key columns (e.g., Product Name, Price, Quantity). No critical gaps were found.

### Removed duplicates to avoid double-counting sales.

### Corrected data types: ensured *Date* column was in date format, *Quantity/Price/Amount* were in numeric format.

### Validated calculations: cross-checked that *Amount = Quantity × Unit Price*.

### New Columns/Features Created

### Month/Year column: extracted from *Date* to analyze sales trends over time.

### Revenue contribution %: calculated each brand’s or product type’s share of total sales.

### Profitability metric (if assumed margin % applied): estimated profit for deeper insights (optional).

### 7. Dashboard Design Strategy

### The dashboard was designed to provide a clear, interactive, and business-friendly overview of sneakers and streetwear sales. The layout is structured into three main sections:

### Top Section – Key Metrics

### Displays overall sales revenue, total quantity sold, and number of transactions.

### Provides a quick snapshot for stakeholders to assess overall performance.

### Middle Section – Sales Trends & Comparisons

### Line Chart: used to show sales trends over time (monthly/quarterly) for better visibility of growth and seasonality.

### Bar Charts: used to compare sales by brand, product type, and country, making it easy to spot top performers.

### Pie/Donut Charts: highlight payment mode distribution and gender-based sales share.

### Bottom Section – Customer & Product Insights

### Tables and PivotCharts summarize the top-selling products and high-revenue categories.

### Additional metrics such as “brand contribution to total revenue” are displayed for quick comparisons.

### 8. Questions & Solutions

### Question 1: Which brand generated the highest revenue?

### Analysis: Grouped sales by *Brand* and summed up the total revenue.

### Solution: Nike generated the highest revenue with $67,975.58, followed by Adidas ($36,858.43) and Off-White ($24,214.82).

### Question 2: What are the top 5 best-selling products by revenue?

### Analysis: Aggregated revenue by *Product Name* and sorted in descending order.

### Solution: The top 5 products were:

### Off-White Hoodie – $24,214.82

### Nike Dunk Low – $23,634.39

### Nike Tech Fleece – $23,247.12

### Yeezy Boost 350 – $21,658.65

### Puma Joggers – $21,342.02

### Question 3: Which country contributed the most to sales?

### Analysis: Grouped sales by *Country* to identify regional demand.

### Solution: Japan led with $31,587.39, followed closely by Canada ($30,851.19) and Germany ($29,822.89).

### Question 4: How did sales perform over time?

### Analysis: Extracted *Month* from the transaction dates and calculated monthly revenue.

### Solution: Sales peaked in March 2022 ($29,043.18) and had a dip in April ($17,176.88). This indicates seasonal fluctuations.

### Question 5: What is the most preferred payment mode?

### Analysis: Counted the frequency of each payment mode.

### Solution: Cash on Delivery was the most popular method (102 transactions), followed by Card (89) and Wallet (89).

### 9. Challenges Faced & Solutions

| Challenge | Solution |
| --- | --- |
| Challenge 1: Handling duplicate and inconsistent records in the dataset | Solution: Removed duplicate entries and standardized data types (e.g., dates, numeric values) to ensure accuracy. |
| Challenge 2: Choosing the right chart type to effectively visualize sales trends | Solution: Experimented with line charts, bar charts, and pie charts; selected line charts for time trends, bar charts for brand/country comparisons, and pie/donut charts for category or payment mode distribution. |
| Challenge 3: Dataset not ready for PivotTable analysis (e.g., raw dates, no month/year field) | Solution: Created a Month/Year column from the Date field and restructured the dataset into a tidy table suitable for PivotTables and dashboards. |
| Challenge 4: Ensuring the dashboard was user-friendly for non-technical stakeholders | Solution: Added slicers and filters (Brand, Country, Gender, Category) to make the dashboard interactive and easy to navigate. |
| Challenge 5: Verifying accuracy of calculated metrics (Amount = Quantity × Unit Price) | Solution: Performed consistency checks and recalculated totals to confirm correctness of data before analysis. |

### 10. Outcome

### This project provided several valuable insights into sneakers and streetwear sales. The analysis revealed that Nike emerged as the leading brand in revenue, while products like the *Off-White Hoodie* and *Nike Dunk Low* dominated sales. Regional analysis highlighted Japan, Canada, and Germany as top-performing markets, and time-based analysis showed seasonal fluctuations with a sales peak in March. Additionally, Cash on Delivery was found to be the most preferred payment method among customers.

### The interactive Excel dashboard proved highly useful by offering a comprehensive, real-time view of sales performance, enabling stakeholders to explore sales by brand, product type, country, and payment mode with ease.

### Throughout this project, skills in data cleaning, pivot table analysis, and dashboard design in Excel were enhanced. This process strengthened the ability to transform raw data into actionable business insights, supporting better decision-making in retail strategy and inventory management.

### 11. Screenshots of Final Output

### Final Dashboard

### Insert a screenshot of your Excel dashboard showing:

### KPIs (Total Sales, Quantity, Transactions)

### Line chart for monthly sales trend

### Bar chart for brand revenue comparison

### Pie/Donut chart for payment mode distribution

### Slicers/filters for *Brand, Country, Gender, Category*

### *(Screenshot of Dashboard goes here)*

### Questions & Solutions Sheet

### Insert a screenshot of the worksheet/table that lists the 5 business questions, the analysis method, and their solutions with supporting data.*In Excel, you can press Windows + Shift + S (on Windows) or Command + Shift + 4 (on Mac) to take clean screenshots of selected areas.*

### 12. Conclusion

### This mini-project provided a practical opportunity to apply and enhance data analysis skills using Microsoft Excel. Through the process of cleaning, preparing, and analyzing a real-world sneakers and streetwear sales dataset, I gained hands-on experience in transforming raw data into meaningful insights. The creation of PivotTables, charts, and an interactive dashboard strengthened my ability to design effective visualizations that clearly communicate trends, comparisons, and customer behavior.

### The project also highlighted how data-driven insights can support better decision-making in areas such as brand performance, regional demand, and sales strategies. Overall, this experience not only improved my technical proficiency in Excel but also deepened my understanding of the role of data analytics in solving business problems and guiding strategic growth.

### 13. References

### Microsoft Support. *Create a PivotTable to analyze worksheet data.* Retrieved from: https://support.microsoft.com/excel/pivottable

### Microsoft Support. *Create a chart from start to finish.* Retrieved from: https://support.microsoft.com/excel/charts

### Excel Campus. *Guide to Creating Dashboards in Excel.* Retrieved from: https://www.excelcampus.com

### Tutorials Point. *Microsoft Excel - Data Analysis.* Retrieved from: https://www.tutorialspoint.com/excel/excel\_data\_analysis.htm

### Dataset provided for academic/project purposes.