



["Nike Sales Dashboard
using Power BI"]

BDA ASSIGNMENT - 1

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INTRODUCTION :

The **Nike Sales Dashboard** is an interactive Power BI report designed to provide a comprehensive analysis of Nike's product sales across various regions and time periods. This dashboard is developed to assist stakeholders in understanding key performance indicators such as sales trends, profit margins, and product-specific metrics. The dashboard is divided into three pages - Overview, Insights, and Performance - each offering distinct yet interconnected insights.

The design of the dashboard follows a grayscale theme, aligning with Nike's sleek and modern brand identity. It also includes strategically placed Nike logos and icons to enhance visual appeal and brand recognition. The interactive elements such as filters, navigators, and dynamic visualizations ensure that users can effortlessly explore the data and derive actionable insights.



AIM :

The primary objective of this project is to create a robust and intuitive dashboard that allows users to:

- **Analyze Product-Specific Sales:** View detailed information and sales performance metrics for individual Nike products.
- **Explore Sales Trends:** Examine trends in sales units, revenue, and profitability across different regions and timeframes.
- **Enhance Decision-Making:** Provide business users and stakeholders with actionable insights to make informed decisions regarding product strategy, marketing, and sales operations.

This dashboard is particularly aimed at Nike's sales and marketing teams, product managers, and executives who require quick access to detailed sales information and visual analytics.

PROCEDURE :

The development of the Nike Sales Dashboard was executed in a series of methodical steps, encompassing data collection, preparation, visualization, and final design.

1. Data Collection

The foundation of the dashboard is built on three key datasets:

- **DataSet_Nike:** This dataset serves as the primary source of sales data and includes the following fields:
 - **Product Information:** Product ID, Product Name.
 - **Sales Metrics:** Units Sold, Operating Margin, Operating Profit.
 - **Transaction Details:** Invoice Date, Sales Method, Retailer ID, Region, State, City.
 - **Time Dimensions:** Derived from the invoice date to connect with the Calendar table.

The screenshot displays the NikeSales_Dashboard application. The main window shows a table with columns: Brand, Retailer ID, Invoice Date, Region, State, City, Units Sold, Operating Profit, Operating Margin, Sales Method, and Product Name. The table contains 30 rows of data. A sidebar on the right shows a search bar and a list of data sources: Calendar, DataSet_Nike, and Nike-Details. The DataSet_Nike source is selected, and a dropdown menu shows the table name 'DataSet_Nike' and the last refresh time '8/28/2024, 6:58:27 PM'.

Brand	Retailer ID	Invoice Date	Region	State	City	Units Sold	Operating Profit	Operating Margin	Sales Method	Product Name
NIKE	1185732	Wednesday, February 17, 2021	Northeast	West Virginia	Charleston	175	24500	0.4	In-store	Nike Joyride Run Flyknit
NIKE	1185732	Wednesday, February 17, 2021	Northeast	West Virginia	Charleston	250	50000	0.4	In-store	Nike Storage mode Import
NIKE	1185732	Wednesday, February 17, 2021	Northeast	West Virginia	Charleston	350	35000	0.4	In-store	Nike Data refreshed 8/28/2024, 6:58:27 PM
NIKE	1185732	Tuesday, March 16, 2021	Northeast	West Virginia	Charleston	570	68400	0.4	In-store	Nike react Phantom run Flyknit 2
NIKE	1185732	Tuesday, March 16, 2021	Northeast	West Virginia	Charleston	275	33000	0.4	In-store	Nike react Phantom run Flyknit 2
NIKE	1185732	Tuesday, March 16, 2021	Northeast	West Virginia	Charleston	325	26000	0.4	In-store	Jordan Break
NIKE	1185732	Tuesday, March 16, 2021	Northeast	West Virginia	Charleston	175	17500	0.4	In-store	LeBron 7 QS
NIKE	1185732	Tuesday, March 16, 2021	Northeast	West Virginia	Charleston	225	36000	0.4	In-store	Nike In-Season TR 9
NIKE	1185732	Tuesday, March 16, 2021	Northeast	West Virginia	Charleston	325	39000	0.4	In-store	Nike Joyride Run Flyknit
NIKE	1185732	Saturday, April 17, 2021	Northeast	West Virginia	Charleston	550	66000	0.4	In-store	Nike ZoomX Vista Grind
NIKE	1185732	Saturday, April 17, 2021	Northeast	West Virginia	Charleston	250	30000	0.4	In-store	Nike Air Force 1 Sage Low
NIKE	1185732	Saturday, April 17, 2021	Northeast	West Virginia	Charleston	250	20000	0.4	In-store	Nike Air Force 1 '07 LV8
NIKE	1185732	Saturday, April 17, 2021	Northeast	West Virginia	Charleston	175	17500	0.4	In-store	Nike Air Max 720
NIKE	1185732	Saturday, April 17, 2021	Northeast	West Virginia	Charleston	200	52000	0.4	In-store	Nike Air Max Dia
NIKE	1185732	Saturday, April 17, 2021	Northeast	West Virginia	Charleston	325	65000	0.4	In-store	Air Jordan 1 Mid SE
NIKE	1185732	Tuesday, May 18, 2021	Northeast	West Virginia	Charleston	595	142800	0.4	In-store	Nike Daybreak
NIKE	1185732	Tuesday, May 18, 2021	Northeast	West Virginia	Charleston	300	48000	0.4	In-store	Nike SB Shane
NIKE	1185732	Tuesday, May 18, 2021	Northeast	West Virginia	Charleston	275	38500	0.4	In-store	Nike Mercurial Vapor 13 Club Neymar Jr. TF
NIKE	1185732	Tuesday, May 18, 2021	Northeast	West Virginia	Charleston	200	28000	0.4	In-store	Air Jordan 1 Mid
NIKE	1185732	Tuesday, May 18, 2021	Northeast	West Virginia	Charleston	225	40500	0.4	In-store	Nike Air Max 270 React
NIKE	1185732	Tuesday, May 18, 2021	Northeast	West Virginia	Charleston	350	77000	0.4	In-store	Nike Air Max 98
NIKE	1185732	Thursday, June 17, 2021	Northeast	West Virginia	Charleston	600	108000	0.4	In-store	Nike Joyride Dual Run Premium
NIKE	1185732	Thursday, June 17, 2021	Northeast	West Virginia	Charleston	425	68000	0.4	In-store	Nike Free RN Flyknit 3.0 2020
NIKE	1185732	Thursday, June 17, 2021	Northeast	West Virginia	Charleston	300	42000	0.4	In-store	Nike Mercurial Vapor 13 Club Neymar Jr. IC
NIKE	1185732	Thursday, June 17, 2021	Northeast	West Virginia	Charleston	275	38500	0.4	In-store	Nike Mercurial Vapor 13 Elite Neymar Jr. FG
NIKE	1185732	Thursday, June 17, 2021	Northeast	West Virginia	Charleston	275	49500	0.4	In-store	PG 4 EP
NIKE	1185732	Thursday, June 17, 2021	Northeast	West Virginia	Charleston	425	110500	0.4	In-store	Air Max 97 LX

- **Nike-Details:** This dataset contains detailed product information, including:
 - **Visual Elements:** Image URLs (back image, overall image, left side image, right side image, sole image, upper image).
 - **Product Specifications:** Product ID, Product Name, Description, Brand.
 - **Market Information:** Sale Price, Listing Price, Discount, Rating, Reviews.
 - **User Interaction Metrics:** Last visited.

Table: Nike-Details (572 rows)

URL	Product Name	Product ID	Listing Price	Sale Price	Discount
https://www.nike.com/in/n/air-force-1-07-essential-shoe-BHN3Db/C1646-600	Nike Air Force 1 '07 Essential	C1646-600	\$0	\$7,495	
https://www.nike.com/in/n/air-force-1-07-shoe-JK8T4/CT4328-101	Nike Air Force 1 '07	CT4328-101	\$0	\$7,495	
https://www.nike.com/in/n/air-max-200-lx-shoe-nTddB/CJ3482-200	Nike Air Max 200 LX	CJ3482-200	\$0	\$10,495	
https://www.nike.com/in/n/air-max-dia-se-shoe-CH3PhK/CD0479-200	Nike Air Max Dia SE	CD0479-200	\$0	\$9,995	
https://www.nike.com/in/n/air-max-verona-shoe-BN72WH/C26156-101	Nike Air Max Verona	C26156-101	\$0	\$10,495	
https://www.nike.com/in/n/free-metcon-3-training-shoe-NM02/CJ6314-146	Nike Free Metcon 3	CJ6314-146	\$0	\$5,995	
https://www.nike.com/in/n/nikecourt-blanc-shoe-Kw62P/CJ0808-100	NikeCourt Blanc	CJ0808-100	\$0	\$10,495	
https://www.nike.com/in/n/jordan-air-max-200-lx-shoe-v2gHX/AV5186-101	Jordan Air Max 200 LX	AV5186-101	\$0	\$7,995	
https://www.nike.com/in/n/superrep-go-training-shoe-WLSRm/CJ0860-668	Nike SuperRep Go	CJ0860-668	\$0	\$14,995	
https://www.nike.com/in/n/air-max-270-react-eng-shoe-sWRvd/CJ2608-100	Nike Air Max 270 React ENG	CJ2608-100	\$0	\$7,995	
https://www.nike.com/in/n/air-force-1-07-shoe-7fcdQX/CJ1379-001	Nike Air Force 1 '07	CJ1379-001	\$0	\$3,495	
https://www.nike.com/in/n/court-vintage-shoe-bvP4d/CT11726-100	Nike Court Vintage Premium	CT11726-100	\$0	\$15,995	
https://www.nike.com/in/n/air-max-97-shoe-nQGPp/CJ4525-001	Nike Air Max 97	CT4525-001	\$0	\$11,995	
https://www.nike.com/in/n/react-phantom-run-flyknit-2-running-shoe-LcSG87/CJ0277-002	Nike React Phantom Run Flyknit 2	CJ0277-002	\$0	\$9,995	
https://www.nike.com/in/n/air-max-90-shoe-nDnRm/CT1030-100	Nike Air Max 90	CT1030-100	\$0	\$11,995	
https://www.nike.com/in/n/react-phantom-run-flyknit-2-running-shoe-tW5NcL/CJ0280-001	Nike React Phantom Run Flyknit 2	CJ0280-001	\$0	\$13,995	
https://www.nike.com/in/n/zoomx-vista-grind-shoe-25s8B/CQ9500-100	Nike ZoomX Vista Grind	CQ9500-100	\$0	\$8,995	
https://www.nike.com/in/n/air-max-270-react-eng-shoe-6p35N/CJ0619-100	Nike Air Max 270 React	CJ0619-100	\$0	\$15,995	
https://www.nike.com/in/n/air-max-98-shoe-LgHjrm/CJ0592-001	Nike Air Max 98	CJ0592-001	\$0	\$11,995	
https://www.nike.com/in/n/joyride-dual-run-running-shoe-gDpVc/CT3867-001	Nike Joyride Dual Run Premium	CT3867-001	\$0	\$10,995	
https://www.nike.com/in/n/free-rn-flyknit-3-2020-running-shoe-Nn61BT/CJ0267-001	Nike Free RN Flyknit 3.0 2020	CJ0267-001	\$0	\$22,995	
https://www.nike.com/in/n/mercurial-vapor-13-elite-neyymar-jr-fg-football-boot-cQIM6G/AT7898-104	Nike Mercurial Vapor 13 Elite Neymar Jr. FG	AT7898-104	\$0	\$8,995	
https://www.nike.com/in/n/pg-4-ep-basketball-shoe-9fGQw/CD5086-500	PG 4 EP	CD5086-500	\$0	\$15,995	
https://www.nike.com/in/n/air-max-97-lx-shoe-6V8gBm/CJ0625-700	Air Max 97 LX	CJ0625-700	\$0	\$9,995	
https://www.nike.com/in/n/air-max-90-shoe-mNsXT4/CT4352-104	Nike Air Max 90	CT4352-104	\$0	\$9,995	

- **Calendar:** A custom date table created in Power BI, encompassing:
 - **Date Components:** Date, Day, Day Number, Month, Month Number, Year.
 - This table was necessary to facilitate time-based analysis and ensure proper alignment of sales data over time.

Table: Calendar (731 rows)

Date	day	day_no	month	month_No	year
1/1/2020 12:00:00 AM	Wed	1	Jan	1	2020
1/2/2020 12:00:00 AM	Thu	2	Jan	1	2020
1/3/2020 12:00:00 AM	Fri	3	Jan	1	2020
1/4/2020 12:00:00 AM	Sat	4	Jan	1	2020
1/5/2020 12:00:00 AM	Sun	5	Jan	1	2020
1/6/2020 12:00:00 AM	Mon	6	Jan	1	2020
1/7/2020 12:00:00 AM	Tue	7	Jan	1	2020
1/8/2020 12:00:00 AM	Wed	8	Jan	1	2020
1/9/2020 12:00:00 AM	Thu	9	Jan	1	2020
1/10/2020 12:00:00 AM	Fri	10	Jan	1	2020
1/11/2020 12:00:00 AM	Sat	11	Jan	1	2020
1/12/2020 12:00:00 AM	Sun	12	Jan	1	2020
1/13/2020 12:00:00 AM	Mon	13	Jan	1	2020
1/14/2020 12:00:00 AM	Tue	14	Jan	1	2020
1/15/2020 12:00:00 AM	Wed	15	Jan	1	2020
1/16/2020 12:00:00 AM	Thu	16	Jan	1	2020
1/17/2020 12:00:00 AM	Fri	17	Jan	1	2020
1/18/2020 12:00:00 AM	Sat	18	Jan	1	2020
1/19/2020 12:00:00 AM	Sun	19	Jan	1	2020
1/20/2020 12:00:00 AM	Mon	20	Jan	1	2020
1/21/2020 12:00:00 AM	Tue	21	Jan	1	2020
1/22/2020 12:00:00 AM	Wed	22	Jan	1	2020
1/23/2020 12:00:00 AM	Thu	23	Jan	1	2020
1/24/2020 12:00:00 AM	Fri	24	Jan	1	2020
1/25/2020 12:00:00 AM	Sat	25	Jan	1	2020

2. Data Preparation

After collecting the necessary data, the next step was to establish relationships and create calculated columns to drive the analysis:

- **Establishing Relationships:**
 - **DataSet_Nike and Calendar:** Linked using the `Invoice Date` to ensure proper time-based filtering and analysis.
 - **DataSet_Nike and Nike-Details:** Linked using `Product ID` to enable detailed product-level analysis and visualization.
- **Creating Calculated Columns:**
 - **CY_Units (Current Year Units):** `CY_Units = CALCULATE([Units], Calendar[Year] = 2021)`
 - This column calculates the total units sold in the current year (2021) for each product.
 - **PY_Units (Previous Year Units):** `PY_Units = CALCULATE([Units], Calendar[Year] = 2020)`
 - This column calculates the total units sold in the previous year (2020) for comparison.
 - **Profit:** `Profit = CALCULATE(SUM(DataSet_Nike[Operating Profit]), Calendar[Year] = 2020)`
 - This column computes the total operating profit generated by each product in 2020.
 - **Units:** `Units = SUM(DataSet_Nike[Units Sold])`
 - This column aggregates the total units sold for each product, providing a basic metric for analysis.

3. Dashboard Design and Visualization

The dashboard was divided into three pages, each designed to provide specific insights:

Page 1: Overview

The Overview page is the entry point of the dashboard, providing users with a summary of product information and enabling them to interact with the dashboard:

- **Product Information:**
 - **Main Image and Additional Images:** Displays one primary image and three supplementary images of the selected shoe, allowing users to visually identify the product.



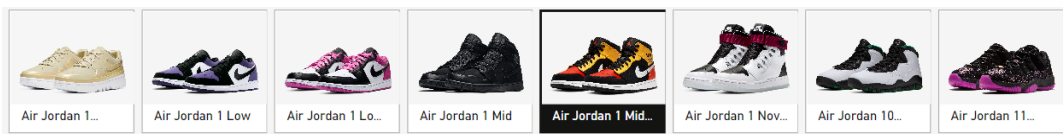
- **Product Name and Description:** Provides a brief overview of the product, including its name and a description.

Air Jordan 1 Mid SE

The Air Jordan 1 Mid SE maintains the timeless appeal of the OG AJ1, revamped with fresh colours and premium materials. Built with a lightweight Air-Sole unit and classic design lines, it captures the essence of the original through a modern lens.

- **Filter Panel:**

- **Product Filter:** A slicer that allows users to select a specific shoe from the available products. When a shoe is selected, the data and visualizations on the other pages (Insights and Performance) automatically update to reflect the selected product's metrics.



- **Page Navigator Button:**

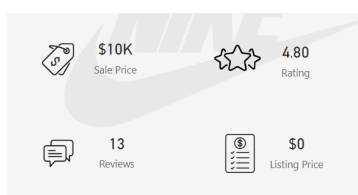
- A navigation button present on all three pages, allowing users to switch between the Overview, Insights, and Performance pages easily. This ensures that users can navigate through the dashboard without any friction.



Page 2: Insights

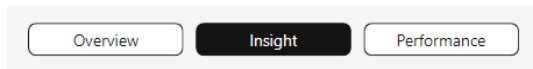
The Insights page dives deeper into the selected product's market and user engagement metrics:

- **Product Information:**
 - **Main Image, Product Name, and Description:** Similar to the Overview page, this section reinforces the product's identity.
- **Key Market Metrics:**
 - **Sale Price:** Displays the current sale price of the selected shoe.
 - **Listing Price:** Shows the original listing price, allowing users to compare it with the sale price to assess discounts.
 - **Rating:** Provides the product's average user rating, giving insight into customer satisfaction.
 - **Number of Reviews:** Indicates how many reviews the product has received, providing context for the rating.



- **Page Navigator Button:**

- As with the other pages, this button allows seamless navigation across the dashboard.



Page 3: Performance

The Performance page focuses on sales metrics and visual representations of the selected product's performance:

- **Product Information:**

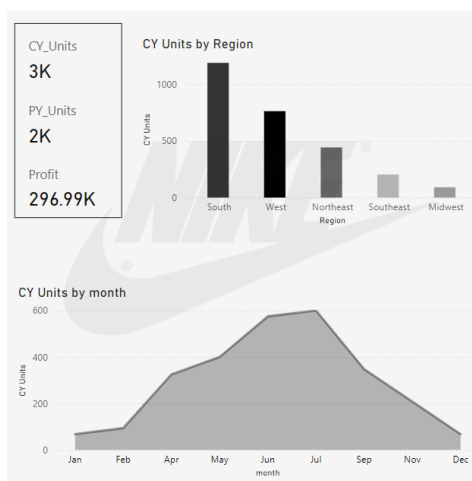
- **Multiple Images and Product Name:** Reinforces the selected product's identity with four images and the product name.

- **Sales Metrics:**

- **CY_Units (Current Year Units):** Displays the total units sold in the current year.
- **PY_Units (Previous Year Units):** Shows the total units sold in the previous year, allowing for a year-over-year comparison.
- **Profit:** Displays the profit generated by the product in the previous year.

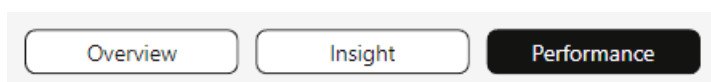
- **Visualizations:**

- **Bar Graph - CY Units by Region:** A bar graph that breaks down the current year's units sold by region, providing a geographic analysis of sales performance.
- **Stacked Area Chart - CY Units by Month:** A stacked area chart that displays the trend of units sold across different months in the current year, helping to identify seasonal trends or spikes in sales.



- **Page Navigator Button:**

- Present on this page as well to ensure users can easily navigate to other sections of the dashboard.



4. Final Design and Optimization

After completing the visualization setup, the final phase involved arranging the components for optimal usability and visual appeal:

- **Theme and Color Scheme:** The dashboard utilizes a grayscale theme to maintain a clean and modern look that aligns with Nike's brand image. The choice of colors ensures that the focus remains on the data, with visual elements enhancing rather than distracting from the insights.



- **Visual Alignment:** All visual components were carefully aligned and spaced to create a balanced and aesthetically pleasing layout. The use of white space ensures that the dashboard is not cluttered, making it easier for users to focus on the data.
- **Interactive Elements:** The interaction between filters and visualizations was rigorously tested to ensure that users could seamlessly explore different aspects of the data without encountering any issues.

RESULTS AND OUTPUTS :

The Nike Sales Dashboard effectively meets the project's objectives, providing a powerful tool for exploring Nike's product sales data. The key outcomes of the dashboard include:

- **Interactive Product Analysis:** Users can select any Nike shoe from the Overview page, and the dashboard will dynamically update to show detailed insights on that product across the Insights and Performance pages.
- **Comprehensive Market and Sales Metrics:** The dashboard provides key metrics such as sale price, listing price, ratings, and reviews, alongside essential sales data like CY_Units, PY_Units, and profit. These metrics offer a holistic view of each product's performance in the market.
- **Visual Trend Analysis:** The bar graph and stacked area chart on the Performance page allow users to explore regional sales distributions and monthly sales trends, helping to identify patterns and opportunities.
- **User-Friendly Navigation:** The inclusion of a consistent page navigator across all three pages ensures that users can easily switch between different views and insights, making the dashboard highly intuitive and user-friendly.

Overview

Insight

Performance

Air Jordan 1 Nova XX

Featuring an internal 1/2 sleeve construction, the Air Jordan 1 Nova XX Shoe offers a snug fit without traditional laces. Underfoot, an Air-Sole unit at the heel provides lightweight cushioning that moves with you all day long.

\$10.5K

Sale Price

5.00

Rating

1

Reviews

\$0

Listing Price

CY_Units

4K

PY_Units

310

Profit

70.39K

CY Units by Region

Region	CY Units
Southeast	1100
South	1000
Midwest Region	950
Northeast	350
West	50

CY Units by month

Month	CY Units
Feb	100
Mar	150
May	200
Jun	400
Jul	450
Sep	250
Oct	900
Nov	300
Dec	1500

Air Jordan 1 Nova XX

CONCLUSION :

The Nike Sales Dashboard represents a significant achievement in visualizing complex sales data in an accessible and interactive format. By combining detailed product information with powerful sales metrics and visual analytics, the dashboard serves as a valuable resource for Nike's sales and marketing teams, enabling data-driven decision-making and strategic planning. The design and functionality of the dashboard ensure that users can navigate and interpret the data with ease, making it a critical tool for understanding and optimizing Nike's product sales performance.

REFERENCE FILES :

<https://drive.google.com/drive/folders/1r2v8ql8tKKRsTTgETWP7bvviX0boC3HG>

CERTIFICATE :

MICROSOFT

Data Analysis and Visualization with Power BI

Beginner level

29 hours (approximately)

<https://www.coursera.org/account/accomplishments/certificate/MCDPXZ2Z6ZZ3>



