# **NAAN MUDHALVAN**

# **DATA ANALYTICS**

**PHASE-3** 

# PROJECT-1

PROJECT TITLE:PRODUCT SALES ANALYSIS

**DOMAIN: DATA ANALYTICS** 

NAME:VINOTH.R

## **AGENDA:**

**INTRODUCTION** 

**PROJECT OVERVIEW** 

PROJECT DEVELOPMENT

**PROJECT TASK** 

**PROJECT TASK** 

**COCLUSION** 

**THANKYOU** 

### **INTRODUCTION:**

In the realm of data analytics, the development and dataset components of our product sales analysis project represent the foundational pillars upon which our quest for actionable insights and informed decision-making is built. The development aspect encapsulates the strategic orchestration of resources, technologies, and processes, from the provisioning of a data warehousing solution to the integration of advanced analytics tools. Simultaneously, the dataset forms the lifeblood of our analysis, encapsulating a rich repository of transactional and contextual data points, ready to be mined and transformed into meaningful patterns and trends. Through the harmonious synergy of these elements, our project seeks to unlock the full potential of sales data, providing invaluable intelligence that empowers us to optimize product strategies, enhance customer experiences, and drive business growth.

#### **PROJECT OVERVIEW:**

The project aims to develop a comprehensive product sales analysis system utilizing data analytics. The development component involves establishing a data warehousing solution on IBM Cloud with Db2 Warehouse, designing the necessary data schema, setting up ETL processes, ensuring data security, and integrating with relevant analytics tools for effective reporting and visualization. Simultaneously, the project will curate and manage a robust dataset that encompasses key sales metrics such as product IDs, unit prices, quantities sold, customer information, payment methods, and location data, ensuring data quality and reliability. This integrated approach will enable insightful and actionable sales analysis, fostering data-driven decision-making within the organization.

#### PROJECT DEVELOPMENT:

the development and dataset components of our product sales analysis project represent the foundational pillars upon which our quest for actionable insights and informed decision-making is built. The development aspect encapsulates the strategic orchestration of resources, technologies, and processes, from the provisioning of a data warehousing solution to the integration of advanced analytics tools. Simultaneously, the dataset forms the lifeblood of our analysis, encapsulating a rich repository of transactional and contextual data points, ready to be mined and transformed into meaningful patterns and trends. Through the harmonious synergy of these elements, our project seeks to unlock the full potential of sales data, providing invaluable intelligence that empowers us to optimize product strategies, enhance customer experiences, and drive business growth.

## **DATA SET:**

|   | Or | Prod  | Qu  | Pr | Ord | Purchas  | M  | Sa | Cit | Н |
|---|----|-------|-----|----|-----|----------|----|----|-----|---|
|   | de | uct   | ant | ic | er  | е        | on | le | У   | o |
|   | r  |       | ity | е  | Dat | Address  | th | S  |     | u |
|   | ID |       | Or  | Ea | e   |          |    |    |     | r |
|   |    |       | der | ch |     |          |    |    |     |   |
|   |    |       | ed  |    |     |          |    |    |     |   |
| 0 | 29 | Macb  | 1   | 17 | ### | 136      | 12 | 17 |     | 0 |
|   | 56 | ook   |     | 00 | ### | Church   |    | 00 | Ne  |   |
|   | 65 | Pro   |     |    | ##  | St, New  |    |    | w   |   |
|   |    | Lapto |     |    |     | York     |    |    | Yor |   |
|   |    | р     |     |    |     | City, NY |    |    | k   |   |
|   |    |       |     |    |     | 10001    |    |    | Cit |   |
|   |    |       |     |    |     |          |    |    | У   |   |
| 1 | 29 | LG    | 1   | 60 | ### | 562 2nd  | 12 | 60 |     | 7 |
|   | 56 | Wash  |     | 0  | ### | St, New  |    | 0  | Ne  |   |
|   | 66 | ing   |     |    | ##  | York     |    |    | W   |   |
|   |    | Mach  |     |    |     | City, NY |    |    | Yor |   |
|   |    | ine   |     |    |     | 10001    |    |    | k   |   |
|   |    |       |     |    |     |          |    |    | Cit |   |
|   |    |       |     |    |     |          |    |    | У   |   |
| 2 | 29 | USB-  | 1   | 11 | ### | 277      | 12 | 11 |     | 1 |
|   | 56 | С     |     | .9 | ### | Main St, |    | .9 | Ne  | 8 |
|   | 67 | Charg |     | 5  | ##  | New      |    | 5  | W   |   |
|   |    |       |     |    |     | York     |    |    | Yor |   |

|   |                | ing<br>Cable                       |   |                |                  | City, NY<br>10001  |    |                | k<br>Cit<br>y              |            |
|---|----------------|------------------------------------|---|----------------|------------------|--|----|----------------|----------------------------|------------|
| 3 | 29<br>56<br>68 | 27in<br>FHD<br>Moni<br>tor         | 1 | 14<br>9.<br>99 | ###<br>###<br>## | 410 6th<br>St, San<br>Francisc<br>o, CA<br>94016             | 12 | 14<br>9.<br>99 | San<br>Fra<br>nci          | <b>1 5</b> |
| 4 | 29<br>56<br>69 | USB-<br>C<br>Charg<br>ing<br>Cable | 1 | 11<br>.9<br>5  | ###<br>###<br>## | 43 Hill<br>St,<br>Atlanta,<br>GA<br>30301                    | 12 | 11<br>.9<br>5  | Atl<br>ant<br>a            | 1 2        |
| 5 | 29<br>56<br>70 | AA Batte ries (4- pack)            | 1 | 3.<br>84       | ###<br>###<br>## | 200<br>Jefferso<br>n St,<br>New<br>York<br>City, NY<br>10001 | 12 | 3.<br>84       | Ne<br>W<br>Yor<br>k<br>Cit | 2 2        |
| 6 | 29<br>56<br>71 | USB-<br>C<br>Charg<br>ing<br>Cable | 1 | 11<br>.9<br>5  | ###<br>###<br>## | 928<br>12th St,<br>Portlan<br>d, OR<br>97035                 | 12 | 11<br>.9<br>5  | Por<br>tla<br>nd           | <b>1 5</b> |
| 7 | 29<br>56<br>72 | USB-<br>C<br>Charg                 | 2 | 11<br>.9<br>5  | ###<br>###<br>## | 813<br>Hickory<br>St,  | 12 | 23<br>.9       | Dal<br>las                 | 9          |

|   |                | ing<br>Cable                                     |   |               |                  | Dallas,<br>TX<br>75001                         |    |               |                          |   |
|---|----------------|--|---|---------------|------------------|--|----|---------------|--------------------------|---|
| 8 | 29<br>56<br>73 | Bose<br>Soun<br>dSpor<br>t<br>Head<br>phon<br>es | 1 | 99<br>.9<br>9 | ###<br>###<br>## | 718<br>Wilson<br>St,<br>Dallas,<br>TX<br>75001 | 12 | 99<br>.9<br>9 | Dal<br>las               | 3 |
| 9 | 29<br>56<br>74 | AAA Batte ries (4- pack)                         | 4 | 2.<br>99      | ###<br>###<br>## | 77 7th St, Dallas, TX 75001                    | 12 | .9<br>6       | Dal<br>las               | 1 |
| 1 | 29             | USB-   | 2 | 11            | ###              | 594 1st  | 12 | 23            |                          | 1 |
| 0 | 56<br>75       | C Charg ing Cable                                |   | .9<br>5       | ###              | St, San<br>Francisc<br>o, CA<br>94016          |    | .9            | San<br>Fra<br>nci<br>sco | 3 |
| 1 | 29             | Think  | 1 | 99            | ###              | 410  | 12 | 99            |                          | 1 |
| 1 | 56<br>76       | Pad<br>Lapto<br>p                                |   | 9.<br>99      | ###              | Lincoln<br>St, Los<br>Angeles<br>, CA<br>90001 |    | 9.<br>99      | Los<br>An<br>gel<br>es   | 7 |

| 1 | 29 | AA    | 2 | 3. | ### | 866      | 12 | 7. |      | 1 |
|---|----|-------|---|----|-----|----------|----|----|------|---|
| 2 | 56 | Batte |   | 84 | ### | Pine St, |    | 68 | Bos  | 9 |
|   | 77 | ries  |   |    | ##  | Boston,  |    |    | ton  |   |
|   |    | (4-   |   |    |     | MA       |    |    |      |   |
|   |    | pack) |   |    |     | 02215    |    |    |      |   |
| 1 | 29 | AAA   | 2 | 2. | ### | 187      | 12 | 5. |      | 9 |
| 3 | 56 | Batte |   | 99 | ### | Lincoln  |    | 98 | Dal  |   |
|   | 78 | ries  |   |    | ##  | St,      |    |    | las  |   |
|   |    | (4-   |   |    |     | Dallas,  |    |    |      |   |
|   |    | pack) |   |    |     | TX       |    |    |      |   |
|   |    |       |   |    |     | 75001    |    |    |      |   |
| 1 | 29 | USB-  | 1 | 11 | ### | 902 2nd  | 12 | 11 |      | 9 |
| 4 | 56 | С     |   | .9 | ### | St,      |    | .9 | Dal  |   |
|   | 79 | Charg |   | 5  | ##  | Dallas,  |    | 5  | las  |   |
|   |    | ing   |   |    |     | TX       |    |    |      |   |
|   |    | Cable |   |    |     | 75001    |    |    |      |   |
| 1 | 29 | Light | 1 | 14 | ### | 338      | 12 | 14 |      | 1 |
| 5 | 56 | ning  |   | .9 | ### | Main St, |    | .9 | Au   | 4 |
|   | 80 | Charg |   | 5  | ##  | Austin,  |    | 5  | stin |   |
|   |    | ing   |   |    |     | TX       |    |    |      |   |
|   |    | Cable |   |    |     | 73301    |    |    |      |   |
| 1 | 29 | Googl | 1 | 60 | ### | 79 Elm   | 12 | 60 |      | 1 |
| 6 | 56 | е     |   | 0  | ### | St,      |    | 0  | Bos  | 2 |
|   | 81 | Phon  |   |    | ##  | Boston,  |    |    | ton  |   |
|   |    | е     |   |    |     | MA       |    |    |      |   |
|   |    |       |   |    |     | 02215    |    |    |      |   |

| 1 | 29 | USB-  | 1 | 11 | ### | 79 Elm   | 12 | 11 |     | 1 |
|---|----|-------|---|----|-----|----------|----|----|-----|---|
| 7 | 56 | С     |   | .9 | ### | St,      |    | .9 | Bos | 2 |
|   | 81 | Charg |   | 5  | ##  | Boston,  |    | 5  | ton | _ |
|   |    | ing   |   |    |     | MA       |    |    |     |   |
|   |    | Cable |   |    |     | 02215    |    |    |     |   |
| 1 | 29 | Bose  | 1 | 99 | ### | 79 Elm   | 12 | 99 |     | 1 |
| 8 | 56 | Soun  |   | .9 | ### | St,      |    | .9 | Bos | 2 |
|   | 81 | dSpor |   | 9  | ##  | Boston,  |    | 9  | ton |   |
|   |    | t     |   |    |     | MA       |    |    |     |   |
|   |    | Head  |   |    |     | 02215    |    |    |     |   |
|   |    | phon  |   |    |     |          |    |    |     |   |
|   |    | es    |   |    |     |          |    |    |     |   |
| 1 | 29 | Wire  | 1 | 11 | ### | 79 Elm   | 12 | 11 |     | 1 |
| 9 | 56 | d     |   | .9 | ### | St,      |    | .9 | Bos | 2 |
|   | 81 | Head  |   | 9  | ##  | Boston,  |    | 9  | ton |   |
|   |    | phon  |   |    |     | MA       |    |    |     |   |
|   |    | es    |   |    |     | 02215    |    |    |     |   |
| 2 | 29 | USB-  | 1 | 11 | ### | 780 Elm  | 12 | 11 |     | 1 |
| 0 | 56 | C     |   | .9 | ### | St,      |    | .9 | Por | 9 |
|   | 82 | Charg |   | 5  | ##  | Portlan  |    | 5  | tla |   |
|   |    | ing   |   |    |     | d, OR    |    |    | nd  |   |
|   |    | Cable |   |    |     | 97035    |    |    |     |   |
| 2 | 29 | Wire  | 1 | 11 | ### | 341      | 12 | 11 |     | 2 |
| 1 | 56 | d     |   | .9 | ### | Lake St, |    | .9 | San | 2 |
|   | 83 | Head  |   | 9  | ##  | San      |    | 9  | Fra |   |
|   |    | phon  |   |    |     | Francisc |    |    | nci |   |
|   |    | es    |   |    |     | o, CA    |    |    | SCO |   |
|   |    |       |   |    |     | 94016    |    |    |     |   |

| 2 | 29 | AAA   | 4 | 2. | ### | 936      | 12 | 11        |     | 1 |
|---|----|-------|---|----|-----|----------|----|-----------|-----|---|
| 2 | 56 | Batte |   | 99 | ### | Church   |    | .9        | San | 2 |
|   | 84 | ries  |   |    | ##  | St, San  |    | 6         | Fra |   |
|   |    | (4-   |   |    |     | Francisc |    |           | nci |   |
|   |    | pack) |   |    |     | o, CA    |    |           | sco |   |
|   |    |       |   |    |     | 94016    |    |           |     |   |
| 2 | 29 | Wire  | 1 | 11 | ### | 662      | 12 | 11        |     | 2 |
| 3 | 56 | d     |   | .9 | ### | Ridge    |    | .9        | San | 2 |
|   | 85 | Head  |   | 9  | ##  | St, San  |    | 9         | Fra |   |
|   |    | phon  |   |    |     | Francisc |    |           | nci |   |
|   |    | es    |   |    |     | o, CA    |    |           | sco |   |
|   |    |       |   |    |     | 94016    |    |           |     |   |
| 2 | 29 | USB-  | 1 | 11 | ### | 573      | 12 | 11        |     | 1 |
| 4 | 56 | С     |   | .9 | ### | Maple    |    | .9        | Por | 6 |
|   | 86 | Charg |   | 5  | ##  | St,      |    | 5         | tla |   |
|   |    | ing   |   |    |     | Portlan  |    |           | nd  |   |
|   |    | Cable |   |    |     | d, ME    |    |           |     |   |
|   |    |       |   |    |     | 04101    |    |           |     |   |
| 2 | 29 | Apple | 1 | 15 | ### | 531      | 12 | <b>15</b> |     | 0 |
| 5 | 56 | Airpo |   | 0  | ### | Ridge    |    | 0         | Bos |   |
|   | 87 | ds    |   |    | ##  | St,      |    |           | ton |   |
|   |    | Head  |   |    |     | Boston,  |    |           |     |   |
|   |    | phon  |   |    |     | MA       |    |           |     |   |
|   |    | es    |   |    |     | 02215    |    |           |     |   |

#### **CONCLUSION:**

In conclusion, the development and dataset creation stages of the product sales analysis project using data analytics are foundational pillars of our endeavor. The robustness of our data warehousing infrastructure, established through IBM Cloud Db2 Warehouse, provides a secure and scalable environment for data storage and retrieval. The meticulously crafted dataset, featuring key attributes such as product details, sales transactions, and customer information, forms the bedrock for insightful analytics. By meticulously planning, designing, and implementing these essential elements, we set the stage for comprehensive, datadriven insights, enabling us to make informed business decisions, identify trends, and optimize our sales strategies with a keen eye on customer needs and market dynamics.

