

## Task5 REPORT

### 1 DATA SOURCING TASK

#### 1. CREATE EXTERNAL TABLES FOR GEO HIERARCHY.

#### Step 1: Create users

|   | USERNAME           | USER_ID | CREATED  | COMMON | ORACLE_MAINTAINED | INHERITED | DEFAULT_COLLATION | IMPLICIT | ALL_SHARD |
|---|--------------------|---------|----------|--------|-------------------|-----------|-------------------|----------|-----------|
| 1 | SOURCE_ABSTRACTION | 110     | 22.02.22 | YES    | Y                 | NO        | USING_NLS_COMP    | NO       | NO        |
| 2 | SOURCE_SYSTEM_1    | 106     | 21.02.22 | YES    | Y                 | NO        | USING_NLS_COMP    | NO       | NO        |
| 3 | SOURCE_SYSTEM_2    | 107     | 21.02.22 | YES    | Y                 | NO        | USING_NLS_COMP    | NO       | NO        |
| 4 | SA_SOURCE_SYSTEM_1 | 108     | 21.02.22 | YES    | Y                 | NO        | USING_NLS_COMP    | NO       | NO        |
| 5 | SA_SOURCE_SYSTEM_2 | 109     | 21.02.22 | YES    | Y                 | NO        | USING_NLS_COMP    | NO       | NO        |

#### Step 2: Create directories and grant privileges to directories for users

```
-- check directories
SELECT * FROM ALL_DIRECTORIES WHERE DIRECTORY_NAME LIKE 'SOURCE_%';
```

Script Output x

Query Result x

Query Result 1 x

SQL | All Rows Fetched: 3 in 0,008 seconds

|   | OWNER | DIRECTORY_NAME | DIRECTORY_PATH                    | ORIGIN_CON_ID |
|---|-------|----------------|-----------------------------------|---------------|
| 1 | SYS   | SOURCE_1       | /opt/oracle/oradata/Source_1_data | 1             |
| 2 | SYS   | SOURCE_2       | /opt/oracle/oradata/Source_2_data | 1             |
| 3 | SYS   | SOURCE_GEO     | /opt/oracle/oradata/Geo_data      | 1             |

|    |                    |            |       |
|----|--------------------|------------|-------|
| 12 | SA_SOURCE_SYSTEM_1 | SOURCE_1   | READ  |
| 13 | SA_SOURCE_SYSTEM_1 | SOURCE_1   | WRITE |
| 14 | SA_SOURCE_SYSTEM_2 | SOURCE_1   | READ  |
| 15 | SA_SOURCE_SYSTEM_2 | SOURCE_2   | READ  |
| 16 | SA_SOURCE_SYSTEM_2 | SOURCE_1   | WRITE |
| 17 | SA_SOURCE_SYSTEM_2 | SOURCE_2   | WRITE |
| 18 | SOURCE_ABSTRACTION | SOURCE_GEO | READ  |
| 19 | SOURCE_ABSTRACTION | SOURCE_GEO | WRITE |

#### Step 3: Create external tables for geo

- geo\_structure\_iso3166.csv

| Script Output ×   Query Result ×   Query Result 1 ×   Query Result 2 ×   Query Result 3 |            |             |                                 |                 |
|---|------------|-------------|---------------------------------|-----------------|
| SQL   All Rows Fetched: 29 in 0,142 seconds   |            |             |                                 |                 |
|   | CHILD_CODE | PARENT_CODE | STRUCTURE_DESC                  | STRUCTURE_LEVEL |
| 1   | 1          | (null)      | World                           | World           |
| 2   | 2          | 1           | Africa                          | Continents      |
| 3   | 14         | 2           | Eastern Africa                  | Regions         |
| 4   | 17         | 2           | Middle Africa                   | Regions         |
| 5   | 15         | 2           | Northern Africa                 | Regions         |
| 6   | 18         | 2           | Southern Africa                 | Regions         |
| 7   | 11         | 2           | Western Africa                  | Regions         |
| 8   | 419        | 1           | Latin America and the Caribbean | Continents      |
| 9   | 29         | 419         | Caribbean                       | Regions         |
| 10  | 13         | 419         | Central America                 | Regions         |
| 11  | 5          | 419         | South America                   | Regions         |
| 12  | 21         | 1           | Northern America                | Continents      |
| 13  | 21         | 21          | Northern America                | Regions         |
| 14  | 142        | 1           | Asia                            | Continents      |
| 15  | 143        | 142         | Central Asia                    | Regions         |
| 16  | 30         | 142         | Eastern Asia                    | Regions         |
| 17  | 34         | 142         | Southern Asia                   | Regions         |
| 18  | 35         | 142         | South-Eastern Asia              | Regions         |
| 19  | 145        | 142         | Western Asia                    | Regions         |
| 20  | 150        | 1           | Europe                          | Continents      |
| 21  | 151        | 150         | Eastern Europe                  | Regions         |
| 22  | 154        | 150         | Northern Europe                 | Regions         |
| 23  | 39         | 150         | Southern Europe                 | Regions         |
| 24  | 155        | 150         | Western Europe                  | Regions         |
| 25  | 9          | 1           | Oceania                         | Continents      |
| 26  | 53         | 9           | Australia and New Zealand       | Regions         |
| 27  | 54         | 9           | Melanesia                       | Regions         |
| 28  | 57         | 9           | Micronesia                      | Regions         |
| 29  | 61         | 9           | Polynesia                       | Regions         |

- geo\_countries\_structure\_iso3166.csv

Script Output x Query Result x Query Result 1 x Query Result 2 x Query Result 3 x Quer

SQL | Fetched 50 rows in 0,584 seconds

|    | COUNTRY_ID | COUNTRY_DESC                     | STRUCTURE_CODE | STRUCTURE_DESC  |
|----|------------|----------------------------------|----------------|-----------------|
| 1  | 108        | Burundi                          | 14             | Eastern Africa  |
| 2  | 174        | Comoros                          | 14             | Eastern Africa  |
| 3  | 262        | Djibouti                         | 14             | Eastern Africa  |
| 4  | 232        | Eritrea                          | 14             | Eastern Africa  |
| 5  | 231        | Ethiopia                         | 14             | Eastern Africa  |
| 6  | 404        | Kenya                            | 14             | Eastern Africa  |
| 7  | 450        | Madagascar                       | 14             | Eastern Africa  |
| 8  | 454        | Malawi                           | 14             | Eastern Africa  |
| 9  | 480        | Mauritius                        | 14             | Eastern Africa  |
| 10 | 175        | Mayotte                          | 14             | Eastern Africa  |
| 11 | 508        | Mozambique                       | 14             | Eastern Africa  |
| 12 | 638        | Reunion                          | 14             | Eastern Africa  |
| 13 | 646        | Rwanda                           | 14             | Eastern Africa  |
| 14 | 690        | Seychelles                       | 14             | Eastern Africa  |
| 15 | 706        | Somalia                          | 14             | Eastern Africa  |
| 16 | 800        | Uganda                           | 14             | Eastern Africa  |
| 17 | 834        | United Republic of Tanzania      | 14             | Eastern Africa  |
| 18 | 894        | Zambia                           | 14             | Eastern Africa  |
| 19 | 716        | Zimbabwe                         | 14             | Eastern Africa  |
| 20 | 24         | Angola                           | 17             | Middle Africa   |
| 21 | 120        | Cameroon                         | 17             | Middle Africa   |
| 22 | 140        | Central African Republic         | 17             | Middle Africa   |
| 23 | 148        | Chad                             | 17             | Middle Africa   |
| 24 | 178        | Congo                            | 17             | Middle Africa   |
| 25 | 180        | Democratic Republic of the Congo | 17             | Middle Africa   |
| 26 | 226        | Equatorial Guinea                | 17             | Middle Africa   |
| 27 | 266        | Gabon                            | 17             | Middle Africa   |
| 28 | 678        | Sao Tome and Principe            | 17             | Middle Africa   |
| 29 | 12         | Algeria                          | 15             | Northern Africa |
| 30 | 818        | Egypt                            | 15             | Northern Africa |
| 31 | 434        | Libya                            | 15             | Northern Africa |

- geo\_countries\_iso3166.csv

| Script Output x Query Result x Query Result 1 x Query Result 2 x Query Result 3 x |            |                                   |              |
|---|------------|-----------------------------------|--------------|
| SQL   Fetched 50 rows in 0,228 seconds  |            |                                   |              |
|   | COUNTRY_ID | COUNTRY_DESC                      | COUNTRY_CODE |
| 1   | 4          | Afghanistan                       | AFG          |
| 2   | 8          | Albania                           | ALB          |
| 3   | 12         | Algeria                           | DZA          |
| 4   | 16         | American Samoa                    | ASM          |
| 5   | 20         | Andorra                           | AND          |
| 6   | 24         | Angola                            | AGO          |
| 7   | 660        | Anguilla                          | AIA          |
| 8   | 28         | Antigua and Barbuda               | ATG          |
| 9   | 32         | Argentina                         | ARG          |
| 10  | 51         | Armenia                           | ARM          |
| 11  | 533        | Aruba                             | ABW          |
| 12  | 36         | Australia                         | AUS          |
| 13  | 40         | Austria                           | AUT          |
| 14  | 31         | Azerbaijan                        | AZE          |
| 15  | 44         | Bahamas                           | BHS          |
| 16  | 48         | Bahrain                           | BHR          |
| 17  | 50         | Bangladesh                        | BGD          |
| 18  | 52         | Barbados                          | BRB          |
| 19  | 112        | Belarus                           | BLR          |
| 20  | 56         | Belgium                           | BEL          |
| 21  | 84         | Belize                            | BLZ          |
| 22  | 204        | Benin                             | BEN          |
| 23  | 60         | Bermuda                           | BMU          |
| 24  | 64         | Bhutan                            | BTN          |
| 25  | 68         | Bolivia (Plurinational State of)  | BOL          |
| 26  | 535        | Bonaire, Saint Eustatius and Saba | BES          |
| 27  | 70         | Bosnia and Herzegovina            | BIH          |
| 28  | 72         | Botswana                          | BWA          |
| 29  | 76         | Brazil                            | BRA          |
| 30  | 92         | British Virgin Islands            | VGB          |
| 31  | 96         | Brunei Darussalam                 | BRN          |

## 2. CREATE EXTERNAL TABLES FOR CHOSEN BUSINESS DATA SOURCES.

### SOURCE 1

#### CHANNEL TABLE

|   | CHANNEL_ID | CHANNEL_DESC | CHANNEL_CLASS | CHANNEL_CLASS_ID |
|---|------------|--------------|---------------|------------------|
| 1 | 3          | Catalog      | Indirect      | 2                |
| 2 | 4          | Internet     | Indirect      | 2                |
| 3 | 2          | Tele Sales   | Direct        | 1                |
| 4 | 1          | Direct Sales | Direct        | 1                |

#### COUNTRIES

| ❖ COUNTRY_ID | ❖ COUNTRY_ISO_CODE | ❖ COUNTRY_NAME           | ❖ COUNTRY_SUBREGION | ❖ COUNTRY_SUBREGION_ID | ❖ COUNTRY_REGION | ❖ COUNTRY_REGION_ID | ❖ COUNTRY_TOTAL | ❖ COUNTRY_TOTAL_ID | ❖ COUNTRY_NAME_HIST |
|--------------|--------------------|--------------------------|---------------------|------------------------|------------------|---------------------|-----------------|--------------------|---------------------|
| 1 22         | US                 | United States of America | Northern America    | 52797                  | Americas         | 52801               | World total     | 52806              | (null)              |
| 2 8          | DE                 | Germany                  | Western Europe      | 52799                  | Europe           | 52803               | World total     | 52806              | (null)              |
| 3 21         | GB                 | United Kingdom           | Western Europe      | 52799                  | Europe           | 52803               | World total     | 52806              | (null)              |
| 4 16         | NL                 | The Netherlands          | Western Europe      | 52799                  | Europe           | 52803               | World total     | 52806              | (null)              |
| 5 12         | IE                 | Ireland                  | Western Europe      | 52799                  | Europe           | 52803               | World total     | 52806              | (null)              |
| 6 9          | DK                 | Denmark                  | Western Europe      | 52799                  | Europe           | 52803               | World total     | 52806              | (null)              |
| 7 11         | FR                 | France                   | Western Europe      | 52799                  | Europe           | 52803               | World total     | 52806              | (null)              |
| 8 10         | ES                 | Spain                    | Western Europe      | 52799                  | Europe           | 52803               | World total     | 52806              | (null)              |
| 9 20         | TR                 | Turkey                   | Western Europe      | 52799                  | Europe           | 52803               | World total     | 52806              | (null)              |
| 10 18        | PL                 | Poland                   | Eastern Europe      | 52795                  | Europe           | 52803               | World total     | 52806              | (null)              |
| 11 7         | BR                 | Brazil                   | Southern America    | 52798                  | Americas         | 52801               | World total     | 52806              | (null)              |
| 12 5         | AR                 | Argentina                | Southern America    | 52798                  | Americas         | 52801               | World total     | 52806              | (null)              |
| 13 15        | MY                 | Malaysia                 | Asia                | 52805                  | Asia             | 52807               | World total     | 52806              | (null)              |

## CUSTOMERS

| ❖ CUSTOMER_ID | ❖ CUSTOMER_FIRST_NAME | ❖ CUSTOMER_LAST_NAME | ❖ CUS... | ❖ CUSTOME... | ❖ CUSTOMER_ADDRESS                     | ❖ CUSTOMER_COUNTRY_ID | ❖ CUSTOMER_ISO_CODE | ❖ CUSTOMER_COUNTRY_NAME  | ❖ CUSTOMER_PHONE | ❖ CUSTOMER_EMAIL    |
|---------------|-----------------------|----------------------|----------|--------------|--|-----------------------|---------------------|--------------------------|------------------|---------------------|
| 1 1           | Abigail               | Ruddy                | M        | 1976         | Edo, 27 South Sagadahoc Boulevard      | 2                     | IT                  | Italy                    | 518-236-6123     | Ruddy@company.com   |
| 2 3           | Abigail               | Ruddy                | M        | 1942         | Schimmert, 47 Toa Alta Road            | 2                     | IT                  | Italy                    | 288-613-9676     | Ruddy@company.com   |
| 3 4           | Abigail               | Ruddy                | M        | 1977         | Scheveningen, 47 South Kanabec Road    | 2                     | IT                  | Italy                    | 222-269-1259     | Ruddy@company.com   |
| 4 5           | Abigail               | Ruddy                | M        | 1949         | Joinville, 57 North 3rd Drive          | 7                     | BR                  | Brazil                   | 675-133-2226     | Ruddy@company.com   |
| 5 6           | Abigail               | Ruddy                | M        | 1950         | Nagoya, 67 East Minutosh Avenue        | 14                    | JP                  | Japan                    | 163-207-2933     | Ruddy@company.com   |
| 6 7           | Abigail               | Ruddy                | M        | 1946         | Santos, 77 Bradford Avenue             | 7                     | BR                  | Brazil                   | 129-379-7140     | Ruddy@company.com   |
| 7 8           | Abigail               | Ruddy                | M        | 1975         | Yokohama, 77 North Packard Avenue      | 14                    | JP                  | Japan                    | 689-236-7611     | Ruddy@company.com   |
| 8 9           | Abigail               | Ruddy                | M        | 1949         | Harlem, 87 West Conbocton Avenue       | 2                     | IT                  | Italy                    | 208-184-6025     | Ruddy@company.com   |
| 9 10          | Abigail               | Ruddy                | M        | 1951         | Bolton, 97 Sagadahoc Avenue            | 21                    | GB                  | United Kingdom           | 391-613-8000     | Ruddy@company.com   |
| 10 11         | Abigail               | Ruddy                | M        | 1948         | Lelystad, 97 South Geneva Avenue       | 2                     | IT                  | Italy                    | 587-269-1680     | Ruddy@company.com   |
| 11 12         | Abner                 | Everett              | M        | 1954         | Wolverhampton, 107 Covington Avenue    | 21                    | GB                  | United Kingdom           | 298-692-7934     | Everett@company.com |
| 12 13         | Abner                 | Everett              | M        | 1975         | Murnau, 107 North Sagacue Avenue       | 8                     | DE                  | Germany                  | 167-248-1619     | Everett@company.com |
| 13 14         | Abner                 | Everett              | M        | 1947         | The Beatles 117 West Gloucester Square | 33                    | MC                  | United States of America | 450-711-8375     | Everett@company.com |

## EMPLOYEES

| ❖ EMPLOYEE_ID | ❖ EMPLOYEE_NAME | ❖ EMPLOYEE_LAST_NAME | ❖ EMPLOYEE_BIRTHDAY | ❖ EMPLOYEE_POSITION          | ❖ EMPLOYEE_PHONE | ❖ EMPLOYEE_EMAIL                     | ❖ EMPLOYEE_ADDRESS                               | ❖ EMPLOYEE_COUNTRY       |
|---------------|-----------------|----------------------|---------------------|------------------------------|------------------|--------------------------------------|--|--------------------------|
| 1 1           | Chuck           | Owens                | Chuck               | 1941-12-13 04:17:282 manager | 6-618-641-4682   | Chuck_Owens6529402528@icloud.biz     | Veldhoven, 27 South Marinette Boulevard          | Spain                    |
| 2 2           | Bryon           | Morrow               | Bryon               | 1940-07-16 15:55:122 seller  | 6-013-861-1165   | Bryon_Morrow1383217053@ieee.tech     | Pune, 67 West Foster City Avenue                 | Spain                    |
| 3 3           | Harvey          | Ashwell              | Harvey              | 1990-11-17 13:36:472 cashier | 0-381-406-8284   | Harvey_Ashwell12075201909@yahoo.com  | Dice, 77 Tallapoosa Avenue                       | New Zealand              |
| 4 4           | Mike            | Rosa                 | Mike                | 1976-05-02 13:47:142 seller  | 2-417-013-3273   | Mike_Rosa616003147@ovock.tech        | Hieuwegein, 77 South Isabella Avenue             | New Zealand              |
| 5 5           | Barney          | Lee                  | Barney              | 2007-08-06 17:16:162 cashier | 3-271-744-3725   | Barney_Lee1306118385@icloud.biz      | Auckland, 87 West Yabucosa Avenue                | Denmark                  |
| 6 6           | Kieth           | Veale                | Kieth               | 2007-10-10 07:38:112 manager | 5-342-342-4567   | Kieth_Veale12226030178@mbat.biz      | Bolward, 107 South Marinette Avenue              | Denmark                  |
| 7 7           | Jacob           | Raven                | Jacob               | 1971-09-20 13:57:192 seller  | 3-523-205-5320   | Jacob_Raven18017442178@icloud.biz    | Den Haag The Hague, 27 East Tallapoosa Boulevard | United Kingdom           |
| 8 8           | Marjorie        | Reyes                | Marjorie            | 1996-09-19 07:21:142 cashier | 1-121-403-3104   | Marjorie_Reyes2045901648@nicksia.com | Edam, 37 Isabella Street                         | United Kingdom           |
| 9 9           | Hank            | Cann                 | Hank                | 2010-01-23 17:39:352 manager | 1-043-505-6717   | Hank_Cann7362050176@joinlas.com      | Alphen aan den Rijn, 37 North Yabucosa Street    | United Kingdom           |
| 10 10         | Lucas           | Lee                  | Lucas               | 1978-03-01 09:16:152 seller  | 5-512-304-6430   | Lucas_Lee2039640108@ovock.tech       | Londrina, 57 South Ontonagon Drive               | United States of America |
| 11 11         | Cecilia         | Wise                 | Cecilia             | 2005-06-24 12:50:162 cashier | 4-823-366-5704   | Cecilia_Wise63651510@ubusive.com     | Adelaide, 87 Foster City Avenue                  | United States of America |
| 12 12         | Vera            | Elden                | Vera                | 1996-08-17 11:18:252 seller  | 0-510-606-2634   | Vera_Elden575590006@acrit.org        | Soest, 87 North Tallapoosa Avenue                | United States of America |
| 13 13         | Clint           | Owen                 | Clint               | 1986-10-25 21:51:182 cashier | 2-536-705-7020   | Clint_Owen126549936@irrepy.com       | Riesville, 107 Yadin Avenue                      | United States of America |

## PRODUCTS

| ❖ PRODUCT_ID | ❖ PRODUCT_NAME                        | ❖ BRAND_ID | ❖ BRAND           | ❖ PRODUCT_TYPE_ID | ❖ PRODUCT_TYPE       | ❖ UNIT_COST | ❖ UNIT_PRICE |
|--------------|---------------------------------------|------------|-------------------|-------------------|----------------------|-------------|--------------|
| 1 1          | Handbag Holiday Cuticle Oil           | 330        | Butter London 93  |                   | Treatment            | 1576.50     | 1970.62      |
| 2 2          | LIPPY                                 | 330        | Butter London 83  |                   | Lipgloss             | 443.62      | 554.52       |
| 3 3          | Hardwear P.D. Quick Top Coat          | 330        | Butter London 12  |                   | Top Coat             | 572.97      | 716.21       |
| 4 4          | Horse Power Nail Fertilizer           | 330        | Butter London 93  |                   | Treatment            | 1398.29     | 1747.86      |
| 5 5          | Kitten Heels Powder Finish Foot Creme | 330        | Butter London 18  |                   | Cream                | 474.72      | 593.40       |
| 6 6          | Matte Finish Top Coat                 | 330        | Butter London 12  |                   | Top Coat             | 628.99      | 786.24       |
| 7 7          | Melt Away Cuticle Eliminator          | 330        | Butter London 93  |                   | Treatment            | 1771.22     | 2214.02      |
| 8 8          | Nail File                             | 330        | Butter London 5   |                   | Nail File            | 497.58      | 621.98       |
| 9 9          | Nail Foundation Flawless Base Coat    | 330        | Butter London 17  |                   | Base Coat            | 641.47      | 801.84       |
| 10 10        | Nail Lacquer                          | 330        | Butter London 29  |                   | Nail Color           | 1128.20     | 1410.25      |
| 11 11        | Powder Room                           | 330        | Butter London 61  |                   | Polish Remover       | 181.94      | 227.42       |
| 12 12        | Rock Off Glycolic Callus Peel         | 330        | Butter London 100 |                   | Exfoliators & Scrubs | 1659.24     | 2074.05      |
| 13 13        | Royal Punch Remover                   | 330        | Butter London 61  |                   | Polish Remover       | 1517.20     | 1896.50      |

## PROMOTIONS

| ❖ PROMO_ID | ❖ PROMO_NAME              | ❖ PROMO_CATEGORY | ❖ PROMO_CATEGORY_ID | ❖ PROMO_COST | ❖ PROMO_BEGIN_DATE      | ❖ PROMO_END_DATE        |
|------------|---------------------------|------------------|---------------------|--------------|-------------------------|-------------------------|
| 1 5        | everyday low price        | ad news          | 3                   | 0.00         | 2020-06-01 00:00:00.000 | 2021-06-01 00:00:00.000 |
| 2 1        | NO PROMOTION #            | NO PROMOTION     | 1                   | 0.00         | 1999-01-01 00:00:00.000 | 1999-01-01 00:00:00.000 |
| 3 33       | internet promotion #29-64 | internet         | 5                   | 9800.00      | 2021-03-31 00:00:00.000 | 2021-06-30 00:00:00.000 |
| 4 2        | post promotion #20-33     | post             | 8                   | 77200.00     | 2020-09-15 00:00:00.000 | 2020-11-15 00:00:00.000 |
| 5 30       | TV promotion #12-61       | TV               | 2                   | 91600.00     | 2021-04-28 00:00:00.000 | 2021-07-28 00:00:00.000 |

## STORES

| ❖ STORE_ID | ❖ STORE_POSTAL_CODE | ❖ STORE_CITY | ❖ STORE_CITY_ID | ❖ STORE_STATE | ❖ STORE_STATE_ID | ❖ STORE_COUNTRY          | ❖ STORE_COUNTRY_ID | ❖ STORE_PHONE | ❖ STORE_STREET_ADDRESS                             |
|------------|---------------------|--------------|-----------------|---------------|------------------|--------------------------|--------------------|---------------|--|
| 1 15       | SW1W 8NE            | London       | 10              | ENG           | 10               | United Kingdom           | 21                 | 2072590747    | 53-55 Fimlico Road                                 |
| 2 25       | 122055118           | Albany       | 12              | NY            | 11               | United States of America | 22                 | 518-489-1112  | 1440 Central Ave                                   |
| 3 6        | 46002               | Valencia     | 3               | AN            | 3                | Spain                    | 10                 | 96.309.29.61  | San Vicente, 46                                    |
| 4 35       | 12021               | Riyadh       | 19              | I             | 16               | Saudi Arabia             | 19                 | 96615513116   | Northern Ring With Rd Salim Ibn Hagil              |
| 5 4        | 8002                | Barcelona    | 2               | CT            | 2                | Spain                    | 10                 | 93.394.35.53  | Rambla Caletetes 109                               |
| 6 43       | 2194                | Johannesburg | 24              | GT            | 20               | South Africa             | 23                 | 27873500159   | Cnr Tyrwhitt and Cradock Avenue, Rosebank          |
| 7 18       | NI 0PN              | London       | 10              | ENG           | 10               | United Kingdom           | 21                 | 2073540179    | 30 Upper St, Islington, O2 Centre                  |
| 8 38       | C1430E27            | Buenos Aires | 20              | C             | 17               | Argentina                | 5                  | 5777-9501     | Melian Avenida 4602                                |
| 9 31       | 282628423           | Charlotte    | 16              | NC            | 14               | United States of America | 22                 | 7045471787    | 9335 North Tryon Street, 104, Northlake Mall       |
| 10 20      | WC2R 0HS            | London       | 10              | ENG           | 10               | United Kingdom           | 21                 | 2078365166    | Unit2 Burleigh House, 355-359 The Strand           |
| 11 1       | 28005               | Madrid       | 1               | MD            | 1                | Spain                    | 10                 | 91.275.21.89  | Plaza Canovas del Castillo 5                       |
| 12 5       | 46002               | Valencia     | 3               | AN            | 3                | Spain                    | 10                 | 96.309.20.11  | Gran via Marques del Turia Ave, 49                 |
| 13 8       | 5011                | Christchurch | 5               | S             | 5                | New Zealand              | 17                 | 33434920      | Westfield shopping centre, Riccarton Rd, 1022 ميني |

## SALES

| ❖ PRODUCT_ID | ❖ CUSTOMER_ID | ❖ CHANNEL_ID | ❖ PROMO_ID | ❖ EMPLOYEE_ID | ❖ STORE_ID | ❖ QUANTITY_SOLD | ❖ TIME_ID  |
|--------------|---------------|--------------|------------|---------------|------------|-----------------|------------|
| 1 7560       | 31855         | 3            | 1          | 39            | 17         | 1.00            | 2021-04-09 |
| 2 5727       | 39662         | 4            | 1          | 40            | 18         | 1.00            | 2021-05-09 |
| 3 3446       | 13429         | 2            | 1          | 42            | 20         | 1.00            | 2021-01-09 |
| 4 4711       | 1453          | 3            | 1          | 44            | 22         | 1.00            | 2021-01-09 |
| 5 3601       | 37704         | 3            | 1          | 45            | 23         | 1.00            | 2021-01-09 |
| 6 2050       | 1789          | 2            | 1          | 47            | 25         | 1.00            | 2021-01-09 |
| 7 3462       | 23991         | 3            | 1          | 48            | 26         | 1.00            | 2021-01-09 |
| 8 10086      | 31381         | 3            | 1          | 52            | 30         | 1.00            | 2021-01-09 |
| 9 4065       | 31240         | 3            | 1          | 64            | 42         | 1.00            | 2021-02-09 |
| 10 8992      | 18294         | 4            | 1          | 65            | 43         | 1.00            | 2021-02-09 |
| 11 6671      | 549           | 3            | 1          | 67            | 1          | 1.00            | 2021-02-09 |
| 12 6207      | 8281          | 2            | 1          | 72            | 6          | 1.00            | 2021-02-09 |
| 13 10320     | 956           | 3            | 1          | 73            | 7          | 1.00            | 2021-02-09 |

SOURCE 2

CHANNEL TABLE

| CHANNEL_ID | CHANNEL_DESC | CHANNEL_CLASS | CHANNEL_CLASS_ID |
|------------|--------------|---------------|------------------|
| 1 3        | Catalog      | Indirect      | 2                |
| 2 4        | Internet     | Indirect      | 2                |
| 3 2        | Tele Sales   | Direct        | 1                |
| 4 1        | Direct Sales | Direct        | 1                |

COUNTRIES

| COUNTRY_ID | COUNTRY_ISO_CODE | COUNTRY_NAME             | COUNTRY_SUBREGION | COUNTRY_SUBREGION_ID | COUNTRY_REGION | COUNTRY_REGION_ID | COUNTRY_TOTAL | COUNTRY_TOTAL_ID | COUNTRY_NAME_HIST |
|------------|------------------|--------------------------|-------------------|----------------------|----------------|-------------------|---------------|------------------|-------------------|
| 1 22       | US               | United States of America | Northern America  | 52797                | Americas       | 52801             | World total   | 52806            | (null)            |
| 2 8        | DE               | Germany                  | Western Europe    | 52799                | Europe         | 52803             | World total   | 52806            | (null)            |
| 3 21       | GB               | United Kingdom           | Western Europe    | 52799                | Europe         | 52803             | World total   | 52806            | (null)            |
| 4 16       | NL               | The Netherlands          | Western Europe    | 52799                | Europe         | 52803             | World total   | 52806            | (null)            |
| 5 12       | IE               | Ireland                  | Western Europe    | 52799                | Europe         | 52803             | World total   | 52806            | (null)            |
| 6 9        | DK               | Denmark                  | Western Europe    | 52799                | Europe         | 52803             | World total   | 52806            | (null)            |
| 7 11       | FR               | France                   | Western Europe    | 52799                | Europe         | 52803             | World total   | 52806            | (null)            |

CUSTOMERS

| CUSTOMER_ID | CUSTOMER_COMPANY_NAME | CUSTOMER_COMPANY_NUMBER | CUSTOMER_ADDRESS                          | CUSTOMER_COUNTRY_ID | CUSTOMER_ISO_CODE | CUSTOMER_COUNTRY_NAME    | CUSTOMER_PHONE | CUSTOMER_EMAIL      |
|-------------|-----------------------|-------------------------|---|---------------------|-------------------|--------------------------|----------------|---------------------|
| 1 1144      | AECOM                 | 244-12-4802             | Bryant, 47 East Pierce Road               | 22                  | US                | United States of America | 278-184-9485   | Weik@company.com    |
| 2 653       | Carrefour             | 853-71-2262             | Molino, 57 East Butterfly Drive           | 22                  | US                | United States of America | 580-730-6712   | Lin@company.com     |
| 3 3731      | Biolife Grup          | 503-78-1713             | Buckley, 67 West Moca Avenue              | 22                  | US                | United States of America | 279-695-6085   | Carbery@company.com |
| 4 5109      | Boeing                | 588-33-8704             | Superleaf Hey, 107 East Donna Lake Avenue | 22                  | US                | United States of America | 540-574-7561   | Roy@company.com     |
| 5 5483      | Aecon Impex           | 837-35-3332             | North Hills, 27 South Osaukee Boulevard   | 22                  | US                | United States of America | 248-303-6668   | Frabu@company.com   |
| 6 1712      | Amazon.com            | 236-51-6113             | Malaga, 47 South Idaho Road               | 10                  | ES                | Spain                    | 593-209-4524   | Ivey@company.com    |
| 7 3332      | BuzzFeed              | 466-01-4362             | Montera, 27 East Saratoga Boulevard       | 22                  | US                | United States of America | 694-444-1052   | Moy@company.com     |
| 8 5227      | Boeing                | 380-68-3251             | Madsworth, 67 North Athens Avenue         | 22                  | US                | United States of America | 541-781-6716   | Spivak@company.com  |

EMPLOYEES

| EMPLOYEE_ID | EMPLOYEE_NAME | EMPLOYEE_LAST_NAME | EMPLOYEE_BIRTHDAY    | EMPLOYEE_POSITION | EMPLOYEE_PHONE | EMPLOYEE_EMAIL                       | EMPLOYEE_ADDRESS                            | EMPLOYEE_COUNTRY         |
|-------------|---------------|--------------------|----------------------|-------------------|----------------|--------------------------------------|---|--------------------------|
| 1 39        | Noah          | Eastwood Noah      | 2002-05-21 17:52:082 | manager           | 0-068-186-5614 | Noah_Eastwood1682896119@minogy.biz   | Dun Laoghaire, 47 South Garfield Road       | United States of America |
| 2 48        | Nicole        | Nicholls Nicole    | 1964-09-09 21:08:522 | cashier           | 4-853-084-5747 | Nicole_Nicholls1613216810@gomple.com | Enschede, 107 Breckinridge Avenue           | Argentina                |
| 3 34        | Anne          | Walter Anne        | 1988-11-22 18:10:542 | manager           | 0-876-676-3636 | Anne_Walter2146573068@sheye.org      | Herkrade, 7 South Rusk Circle               | United Kingdom           |
| 4 52        | Valerie       | Page Valerie       | 1964-06-15 17:03:082 | seller            | 6-060-250-3532 | Valerie_Page_1971521838@retoux.com   | Schimmert, 37 North Breckinridge Street     | Spain                    |
| 5 71        | Michael       | Davies Michael     | 1985-04-02 02:30:342 | cashier           | 3-251-651-1164 | Michael_Davies559374531@guentru.biz  | Schwebisch Gmünd, 37 South Albemarle Street | Argentina                |
| 6 32        | Emma          | Snell Emma         | 2008-08-18 17:11:512 | seller            | 7-333-141-2502 | Emma_Snell1141093086@yenbat.biz      | Yokohama, 57 South Owen Drive               | United Kingdom           |
| 7 27        | Noah          | Boyle Noah         | 1967-01-09 13:16:252 | seller            | 1-310-675-5064 | Noah_Boyle872967336@bulaffy.com      | Schoonoord, 107 York Avenue                 | Spain                    |

PRODUCTS

| PRODUCT_ID | PRODUCT_NAME                                    | BRAND_ID | BRAND             | PRODUCT_TYPE_ID | PRODUCT_TYPE   | UNIT_COST | UNIT_PRICE |
|------------|---|----------|-------------------|-----------------|----------------|-----------|------------|
| 1 10631    | Petit Pro Palette                               | 242      | Viseart           | 44              | Eye Palette    | 142.39    | 177.99     |
| 2 612      | Purely Nourishing Moisturizer: Combination Skin | 140      | bareMinerals      | 28              | Lotion         | 1036.83   | 1296.04    |
| 3 5884     | Nail Paint                                      | 62       | Berry M           | 29              | Nail Color     | 857.62    | 1072.03    |
| 4 380      | Foundation Small 104 Brush                      | 77       | Make Up For Ever  | 68              | Face           | 391.98    | 489.97     |
| 5 9956     | Ultimate Brows Shade & Shaper Pencil            | 78       | Uita              | 97              | Pencil         | 1676.47   | 2095.59    |
| 6 833      | Lavender Sage Foot Butter                       | 379      | Nubur             | 18              | Cream          | 878.17    | 1097.71    |
| 7 6457     | Lip Brush L                                     | 357      | Suqqu             | 57              | Lip            | 1004.42   | 1255.52    |
| 8 4821     | Retouch Loose Powder                            | 51       | Temptu            | 31              | Loose Powder   | 1056.02   | 1320.02    |
| 9 5133     | Zap & Hide                                      | 234      | Jane Iredale      | 94              | Concealer      | 412.02    | 515.02     |
| 10 6905    | Make-up Melt Cleanser                           | 146      | Rouge Bunny Rouge | 37              | Makeup Remover | 1807.73   | 2259.66    |

PROMOTIONS

| PROMO_ID | PROMO_NAME                | PROMO_CATEGORY | PROMO_CATEGORY_ID | PROMO_COST | PROMO_BEGIN_DATE        | PROMO_END_DATE          |
|----------|---------------------------|----------------|-------------------|------------|-------------------------|-------------------------|
| 1 33     | internet promotion #29-64 | internet       | 5                 | 9800.00    | 2021-03-31 00:00:00.000 | 2021-06-30 00:00:00.000 |
| 2 5      | everyday low price        | ad news        | 3                 | 0.00       | 2020-06-01 00:00:00.000 | 2021-06-01 00:00:00.000 |
| 3 2      | post promotion #20-33     | post           | 8                 | 77200.00   | 2020-09-15 00:00:00.000 | 2020-11-15 00:00:00.000 |
| 4 30     | TV promotion #12-61       | TV             | 2                 | 91600.00   | 2021-04-28 00:00:00.000 | 2021-07-28 00:00:00.000 |
| 5 1      | NO PROMOTION #            | NO PROMOTION   | 1                 | 0.00       | 1999-01-01 00:00:00.000 | 1999-01-01 00:00:00.000 |

STORES

| STORE_ID | STORE_POSTAL_CODE | STORE_CITY   | STORE_CITY_ID | STORE_STATE | STORE_STATE_ID | STORE_COUNTRY            | STORE_COUNTRY_ID | STORE_PHONE  | STORE_STREET_ADDRESS                      |
|----------|-------------------|--------------|---------------|-------------|----------------|--------------------------|------------------|--------------|---|
| 1 15     | SW1W 8NE          | London       | 10            | ENG         | 10             | United Kingdom           | 21               | 2072590747   | 53-55 Pimlico Road                        |
| 2 25     | 122055118         | Albany       | 12            | NY          | 11             | United States of America | 22               | 518-489-1112 | 1440 Central Ave                          |
| 3 6      | 46002             | Valencia     | 3             | AN          | 3              | Spain                    | 10               | 96.309.29.61 | San Vicente, 44                           |
| 4 35     | 12221             | Riyadh       | 19            | 1           | 16             | Saudi Arabia             | 19               | 96615513116  | Northern Ring with Rd Salim Ibn Maqil     |
| 5 4      | 8002              | Barcelona    | 2             | CT          | 2              | Spain                    | 10               | 93.304.35.53 | Rambla Canaletes 109                      |
| 6 43     | 2194              | Johannesburg | 24            | GT          | 20             | South Africa             | 23               | 27873500159  | Cnr Tyrwhitt and Cradock Avenue, Rosebank |

SALES

| PRODUCT_ID | CUSTOMER_ID | CHANNEL_ID | PROMO_ID | EMPLOYEE_ID | STORE_ID | QUANTITY_SOLD | TIME_ID    |
|------------|-------------|------------|----------|-------------|----------|---------------|------------|
| 1 7563     | 2396        | 3          | 30       | 12          | 30       | 1.00          | 2020-01-02 |
| 2 6235     | 1433        | 3          | 30       | 43          | 17       | 1.00          | 2020-02-02 |
| 3 147      | 486         | 3          | 5        | 44          | 18       | 1.00          | 2020-01-02 |
| 4 3882     | 5306        | 3          | 30       | 45          | 19       | 1.00          | 2020-07-02 |
| 5 3660     | 359         | 3          | 30       | 58          | 32       | 1.00          | 2020-07-02 |
| 6 10117    | 3957        | 3          | 30       | 60          | 34       | 1.00          | 2020-01-02 |
| 7 2154     | 111         | 3          | 30       | 62          | 36       | 1.00          | 2020-01-02 |
| 8 3175     | 1981        | 3          | 30       | 66          | 40       | 1.00          | 2020-07-02 |
| 9 7405     | 3163        | 3          | 30       | 71          | 1        | 1.00          | 2020-01-02 |
| 10 1515    | 4652        | 3          | 30       | 77          | 7        | 1.00          | 2020-07-02 |