**Un-normalized example of Monthly Sales Staff Customer Listing Report**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Staff id** | **Sales Person** | **Sales**  **Office** | **Office**  **Manager** | **Office Phone** | **Cust 1**  **Name** | **Cust 1**  **City** | **Cust 1**  **Postal** | **Cust 2**  **Name** | **Cust 2**  **City** | **Cust 2**  **Postal** | **Cust 3**  **Name** | **Cust 3**  **City** | **Cust 3**  **Postal** |
| 102 | Vicky Nasi | Sarnia | Brenn Soper | 541-466-7937 | MyWorks | Sarnia | N7S | Babbleset | London | N6A | Mudo | Toronto | M3B |
| 105 | Dawn Bestwick | London | Irwin Artz | 717-340-4669 | Yotz | Toronto | M3B | Bubblebox | Toronto | M3B | Latz | London | N6M |
| 101 | Elaine Iston | Toronto | Hill Miner | 610-982-6636 | Livetube | London | N6A | Flipbug | Sarnia | N7S | Meejo | Sarnia | N7T |
| 108 | Patrick Gooley | London | Irwin Artz | 717-340-4669 | Rhybox | Sarnia | N7T | Gigashots | Sarnia | N7T | Gabspot | Sarnia | N7S |
| 106 | Lynda McKeady | Toronto | Hill Miner | 610-982-6636 | Lazz | Toronto | M1B | Zoomdog | Toronto | M1B | Livepath | London | N6A |
| 103 | Gertrud Lainton | Sarnia | Brenn Soper | 541-466-7937 | Flashspan | London | N6A | Jaloo | London | N6M | Bridgeview | Sarnia | N7T |
| 107 | Nikolaos Velez | London | Irwin Artz | 717-340-4669 | Devcast | London | N6M | Edgeify | London | N6A | Fivebridge | Toronto | M1B |
| 104 | Jereme Willis | Toronto | Hill Miner | 610-982-6636 | Zoombeat | Toronto | M3B | Mybuzz | Toronto | M3B | Jazzy | London | N6M |
| 110 | Mort Cawdery | Sarnia | Brenn Soper | 541-466-7937 | Bluejam | Sarnia | N7S | Layo | Sarnia | N7T | Feedmix | London | N6A |
| 111 | Budd Shrimpling | Sarnia | Brenn Soper | 541-466-7937 | JumpXS | Sarnia | N7T | Zoomzone | Sarnia | N7S | Linktype | Toronto | M3B |
| 112 | Lory Placide | London | Irwin Artz | 717-340-4669 | Edgewire | Toronto | M1B | Snaptags | Toronto | M1B | Kare | Sarnia | N7S |
| 109 | Abner Chandler | Toronto | Hill Miner | 610-982-6636 | Yambee | London | N6M | Yodoo | London | N6A | Yata | Sarnia | N7S |

1: First Formational Form (1NF)

# Sales

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Staff id** | Sales Person | Sales  Office | Office  Manager | Office Phone | **Customer Name** | City | Postal |
| 102 | Vicky Nasi | Sarnia | Brenn Soper | 541-466-7937 | MyWorks | Sarnia | N7S |
| 102 | Vicky Nasi | Sarnia | Brenn Soper | 541-466-7937 | Babbleset | London | N6A |
| 102 | Vicky Nasi | Sarnia | Brenn Soper | 541-466-7937 | Mudo | Toronto | M3B |
| 105 | Dawn Bestwick | London | Irwin Artz | 717-340-4669 | Yotz | Toronto | M3B |
| 105 | Dawn Bestwick | London | Irwin Artz | 717-340-4669 | Bubblebox | Toronto | M3B |
| 105 | Dawn Bestwick | London | Irwin Artz | 717-340-4669 | Latz | London | N6M |
| 101 | Elaine Iston | Toronto | Hill Miner | 610-982-6636 | Livetube | London | N6A |
| 101 | Elaine Iston | Toronto | Hill Miner | 610-982-6636 | Flipbug | Sarnia | N7S |
| 101 | Elaine Iston | Toronto | Hill Miner | 610-982-6636 | Meejo | Sarnia | N7T |
| 108 | Patrick Gooley | London | Irwin Artz | 717-340-4669 | Rhybox | Sarnia | N7T |
| 108 | Patrick Gooley | London | Irwin Artz | 717-340-4669 | Gigashots | Sarnia | N7T |
| 108 | Patrick Gooley | London | Irwin Artz | 717-340-4669 | Gabspot | Sarnia | N7S |
| 106 | Lynda McKeady | Toronto | Hill Miner | 610-982-6636 | Lazz | Toronto | M1B |
| 106 | Lynda McKeady | Toronto | Hill Miner | 610-982-6636 | Zoomdog | Toronto | M1B |
| 106 | Lynda McKeady | Toronto | Hill Miner | 610-982-6636 | Livepath | London | N6A |
| 103 | Gertrud Lainton | Sarnia | Brenn Soper | 541-466-7937 | Flashspan | London | N6A |
| 103 | Gertrud Lainton | Sarnia | Brenn Soper | 541-466-7937 | Jaloo | London | N6M |
| 103 | Gertrud Lainton | Sarnia | Brenn Soper | 541-466-7937 | Bridgeview | Sarnia | N7T |
| 107 | Nikolaos Velez | London | Irwin Artz | 717-340-4669 | Devcast | London | N6M |
| 107 | Nikolaos Velez | London | Irwin Artz | 717-340-4669 | Edgeify | London | N6A |
| 107 | Nikolaos Velez | London | Irwin Artz | 717-340-4669 | Fivebridge | Toronto | M1B |
| 104 | Jereme Willis | Toronto | Hill Miner | 610-982-6636 | Zoombeat | Toronto | M3B |
| 104 | Jereme Willis | Toronto | Hill Miner | 610-982-6636 | Mybuzz | Toronto | M3B |
| 104 | Jereme Willis | Toronto | Hill Miner | 610-982-6636 | Jazzy | London | N6M |
| 110 | Mort Cawdery | Sarnia | Brenn Soper | 541-466-7937 | Bluejam | Sarnia | N7S |
| 110 | Mort Cawdery | Sarnia | Brenn Soper | 541-466-7937 | Layo | Sarnia | N7T |
| 110 | Mort Cawdery | Sarnia | Brenn Soper | 541-466-7937 | Feedmix | London | N6A |
| 111 | Budd Shrimpling | Sarnia | Brenn Soper | 541-466-7937 | JumpXS | Sarnia | N7T |
| 111 | Budd Shrimpling | Sarnia | Brenn Soper | 541-466-7937 | Zoomzone | Sarnia | N7S |
| 111 | Budd Shrimpling | Sarnia | Brenn Soper | 541-466-7937 | Linktype | Toronto | M3B |
| 112 | Lory Placide | London | Irwin Artz | 717-340-4669 | Edgewire | Toronto | M1B |
| 112 | Lory Placide | London | Irwin Artz | 717-340-4669 | Snaptags | Toronto | M1B |
| 112 | Lory Placide | London | Irwin Artz | 717-340-4669 | Kare | Sarnia | N7S |
| 109 | Abner Chandler | Toronto | Hill Miner | 610-982-6636 | Yambee | London | N6M |
| 109 | Abner Chandler | Toronto | Hill Miner | 610-982-6636 | Yodoo | London | N6A |
| 109 | Abner Chandler | Toronto | Hill Miner | 610-982-6636 | Yata | Sarnia | N7S |

SALES (**Staff\_id,** sales\_manager, office\_phone, **customer\_name**, city, postal)

2: Second Formational Form (2NF)

# Sales

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Staff ID** | Sales Person | Sales Office | Office Manager | Office Phone |
| 102 | Vicky Nasi | Sarnia | Brenn Soper | 541-466-7937 |
| 105 | Dawn  Bestwick | London | Irwin Artz | 717-340-4669 |
| 101 | Elaine Iston | Toronto | Hill Miner | 610-982-6636 |
| 108 | Patrick Gooley | London | Irwin Artz | 717-340-4669 |
| 106 | Lynda  McKeady | Toronto | Hill Miner | 610-982-6636 |
| 103 | Gertrud Lainton | Sarnia | Brenn Soper | 541-466-7937 |
| 107 | Nikolaos Velez | London | Irwin Artz | 717-340-4669 |
| 104 | Jereme Willis | Toronto | Hill Miner | 610-982-6636 |
| 110 | Mort  Cawdery | Sarnia | Brenn Soper | 541-466-7937 |
| 111 | Budd  Shrimpling | Sarnia | Brenn Soper | 541-466-7937 |
| 112 | Lory Placide | London | Irwin Artz | 717-340-4669 |
| 109 | Abner  Chandler | Toronto | Hill Miner | 610-982-6636 |

SALES (**Staff\_id,** sales\_person,sales\_office, office\_manager,office\_phone)

# Customer

|  |  |  |  |
| --- | --- | --- | --- |
| **Customer ID** | **Customer Name** | City | Postal |
| 102 | MyWorks | Sarnia | N7S |
| 103 | Babbleset | London | N6A |
| 104 | Mudo | Toronto | M3B |
| 105 | Yotz | Toronto | M3B |
| 106 | Bubblebox | Toronto | M3B |
| 107 | Latz | London | N6M |
| 108 | Livetube | London | N6A |
| 109 | Flipbug | Sarnia | N7S |
| 110 | Meejo | Sarnia | N7T |
| 111 | Rhybox | Sarnia | N7T |
| 112 | Gigashots | Sarnia | N7T |
| 113 | Gabspot | Sarnia | N7S |
| 114 | Lazz | Toronto | M1B |
| 115 | Zoomdog | Toronto | M1B |
| 116 | Livepath | London | N6A |
| 117 | Flashspan | London | N6A |
| 118 | Jaloo | London | N6M |
| 119 | Bridgeview | Sarnia | N7T |
| 120 | Devcast | London | N6M |
| 121 | Edgeify | London | N6A |
| 122 | Fivebridge | Toronto | M1B |
| 123 | Zoombeat | Toronto | M3B |
| 124 | Mybuzz | Toronto | M3B |
| 125 | Jazzy | London | N6M |
| 126 | Bluejam | Sarnia | N7S |
| 127 | Layo | Sarnia | N7T |
| 128 | Feedmix | London | N6A |
| 129 | JumpXS | Sarnia | N7T |
| 130 | Zoomzone | Sarnia | N7S |
| 131 | Linktype | Toronto | M3B |
| 132 | Edgewire | Toronto | M1B |
| 133 | Snaptags | Toronto | M1B |
| 134 | Kare | Sarnia | N7S |
| 135 | Yambee | London | N6M |
| 136 | Yodoo | London | N6A |
| 137 | Yata | Sarnia | N7S |

CUSTOMER (**customer\_id, customer\_name**, city,postal)

# Service

|  |  |
| --- | --- |
| **Staff id** | **Customer**  **ID** |
| 102 | 102 |
| 102 | 103 |
| 102 | 104 |
| 105 | 105 |
| 105 | 106 |
| 105 | 107 |
| 101 | 108 |
| 101 | 109 |
| 101 | 110 |
| 108 | 111 |
| 108 | 112 |
| 108 | 113 |
| 106 | 114 |
| 106 | 115 |
| 106 | 116 |
| 103 | 117 |
| 103 | 118 |
| 103 | 119 |
| 107 | 120 |
| 107 | 121 |
| 107 | 122 |
| 104 | 123 |
| 104 | 124 |
| 104 | 125 |
| 110 | 126 |
| 110 | 127 |
| 110 | 128 |
| 111 | 129 |
| 111 | 130 |
| 111 | 131 |
| 112 | 132 |
| 112 | 133 |
| 112 | 134 |
| 109 | 135 |
| 109 | 136 |
| 109 | 137 |

SERVICE (**customer\_id, staff\_id**)

3: Third Formational Form (3NF)

# Sales

|  |  |  |
| --- | --- | --- |
| **Staff ID** | Sales Person | *Sales Office* |
| 102 | Vicky Nasi | Sarnia |
| 105 | Dawn  Bestwick | London |
| 101 | Elaine Iston | Toronto |
| 108 | Patrick Gooley | London |
| 106 | Lynda  McKeady | Toronto |
| 103 | Gertrud Lainton | Sarnia |
| 107 | Nikolaos Velez | London |
| 104 | Jereme Willis | Toronto |
| 110 | Mort  Cawdery | Sarnia |
| 111 | Budd  Shrimpling | Sarnia |
| 112 | Lory Placide | London |
| 109 | Abner  Chandler | Toronto |

SALES (**staff\_id**, sales\_diagram, *sales\_office*)

# Manager

|  |  |  |
| --- | --- | --- |
| **Sales Office** | Office Manager | Office Phone |
| Sarnia | Brenn Soper | 541-466-7937 |
| London | Irwin Artz | 717-340-4669 |
| Toronto | Hill Miner | 610-982-6636 |
| London | Irwin Artz | 717-340-4669 |
| Toronto | Hill Miner | 610-982-6636 |
| Sarnia | Brenn Soper | 541-466-7937 |
| London | Irwin Artz | 717-340-4669 |
| Toronto | Hill Miner | 610-982-6636 |
| Sarnia | Brenn Soper | 541-466-7937 |
| Sarnia | Brenn Soper | 541-466-7937 |
| London | Irwin Artz | 717-340-4669 |
| Toronto | Hill Miner | 610-982-6636 |

MANAGER (**sales\_office,** office\_manager, office\_phone)

# Service

|  |  |
| --- | --- |
| **Staff id** | **Customer**  **ID** |
| 102 | 102 |
| 102 | 103 |
| 102 | 104 |
| 105 | 105 |
| 105 | 106 |
| 105 | 107 |
| 101 | 108 |
| 101 | 109 |
| 101 | 110 |
| 108 | 111 |
| 108 | 112 |
| 108 | 113 |
| 106 | 114 |
| 106 | 115 |
| 106 | 116 |
| 103 | 117 |
| 103 | 118 |
| 103 | 119 |
| 107 | 120 |
| 107 | 121 |
| 107 | 122 |
| 104 | 123 |
| 104 | 124 |
| 104 | 125 |
| 110 | 126 |
| 110 | 127 |
| 110 | 128 |
| 111 | 129 |
| 111 | 130 |
| 111 | 131 |
| 112 | 132 |
| 112 | 133 |
| 112 | 134 |
| 109 | 135 |
| 109 | 136 |
| 109 | 137 |

SERVICE (**customer\_id, staff\_id**)

# Customer

|  |  |  |  |
| --- | --- | --- | --- |
| **Customer ID** | **Customer Name** | City | Postal |
| 102 | MyWorks | Sarnia | N7S |
| 103 | Babbleset | London | N6A |
| 104 | Mudo | Toronto | M3B |
| 105 | Yotz | Toronto | M3B |
| 106 | Bubblebox | Toronto | M3B |
| 107 | Latz | London | N6M |
| 108 | Livetube | London | N6A |
| 109 | Flipbug | Sarnia | N7S |
| 110 | Meejo | Sarnia | N7T |
| 111 | Rhybox | Sarnia | N7T |
| 112 | Gigashots | Sarnia | N7T |
| 113 | Gabspot | Sarnia | N7S |
| 114 | Lazz | Toronto | M1B |
| 115 | Zoomdog | Toronto | M1B |
| 116 | Livepath | London | N6A |
| 117 | Flashspan | London | N6A |
| 118 | Jaloo | London | N6M |
| 119 | Bridgeview | Sarnia | N7T |
| 120 | Devcast | London | N6M |
| 121 | Edgeify | London | N6A |
| 122 | Fivebridge | Toronto | M1B |
| 123 | Zoombeat | Toronto | M3B |
| 124 | Mybuzz | Toronto | M3B |
| 125 | Jazzy | London | N6M |
| 126 | Bluejam | Sarnia | N7S |
| 127 | Layo | Sarnia | N7T |
| 128 | Feedmix | London | N6A |
| 129 | JumpXS | Sarnia | N7T |
| 130 | Zoomzone | Sarnia | N7S |
| 131 | Linktype | Toronto | M3B |
| 132 | Edgewire | Toronto | M1B |
| 133 | Snaptags | Toronto | M1B |
| 134 | Kare | Sarnia | N7S |
| 135 | Yambee | London | N6M |
| 136 | Yodoo | London | N6A |
| 137 | Yata | Sarnia | N7S |

CUSTOMER (**customer\_id, customer\_name**, city,postal)