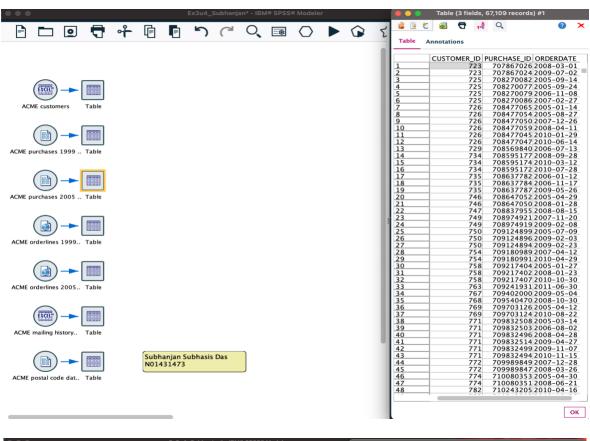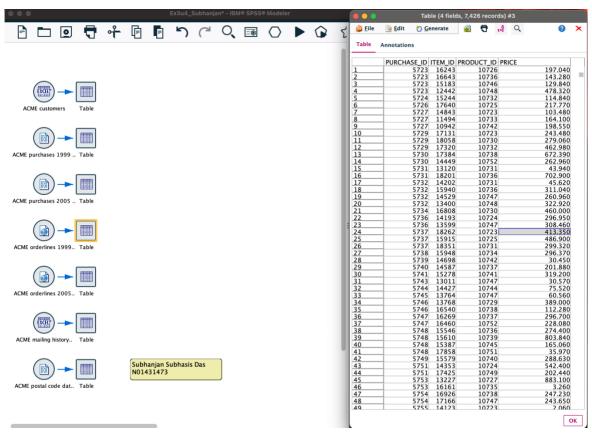Name – Subhanjan Subhasis Das
N01431473

# EXERCISE 3 UNIT 4

## 1: Import data

**Table (3 fields, 67,109 records) #1**

| | CUSTOMER_ID | PURCHASE_ID | ORDERDATE |
|---|---|---|---|
| 1 | 723 | 707867026 | 2008-03-01 |
| 2 | 723 | 707867024 | 2009-07-02 |
| 3 | 725 | 708270082 | 2005-09-14 |
| 4 | 725 | 708270077 | 2005-09-24 |
| 5 | 725 | 708270079 | 2006-11-08 |
| 6 | 725 | 708270086 | 2007-02-27 |
| 7 | 726 | 708477065 | 2005-01-14 |
| 8 | 726 | 708477054 | 2005-08-27 |
| 9 | 726 | 708477050 | 2007-12-26 |
| 10 | 726 | 708477059 | 2008-04-11 |
| 11 | 726 | 708477045 | 2010-01-29 |
| 12 | 726 | 708477047 | 2010-06-14 |
| 13 | 729 | 708569840 | 2006-07-13 |
| 14 | 734 | 708595177 | 2008-09-28 |
| 15 | 734 | 708595174 | 2010-03-12 |
| 16 | 734 | 708595172 | 2010-07-28 |
| 17 | 735 | 708637782 | 2006-01-12 |
| 18 | 735 | 708637784 | 2006-11-17 |
| 19 | 735 | 708637787 | 2009-05-26 |
| 20 | 746 | 708647052 | 2005-04-29 |
| 21 | 746 | 708647050 | 2008-01-28 |
| 22 | 747 | 708837955 | 2008-08-15 |
| 23 | 749 | 708974921 | 2007-11-20 |
| 24 | 749 | 708974919 | 2009-02-08 |
| 25 | 750 | 709124899 | 2005-07-09 |
| 26 | 750 | 709124896 | 2009-02-03 |
| 27 | 750 | 709124894 | 2009-02-23 |
| 28 | 754 | 709180989 | 2007-04-12 |
| 29 | 754 | 709180991 | 2010-04-29 |
| 30 | 758 | 709217404 | 2005-01-27 |
| 31 | 758 | 709217402 | 2008-01-23 |
| 32 | 758 | 709217407 | 2010-10-30 |
| 33 | 763 | 709241931 | 2011-06-30 |
| 34 | 767 | 709402000 | 2009-05-04 |
| 35 | 768 | 709540470 | 2008-10-30 |
| 36 | 769 | 709703126 | 2005-04-12 |
| 37 | 769 | 709703124 | 2010-08-22 |
| 38 | 771 | 709832508 | 2005-03-14 |
| 39 | 771 | 709832503 | 2006-08-02 |
| 40 | 771 | 709832496 | 2008-04-28 |
| 41 | 771 | 709832514 | 2009-04-27 |
| 42 | 771 | 709832499 | 2009-11-07 |
| 43 | 771 | 709832494 | 2010-11-15 |
| 44 | 772 | 709989849 | 2007-12-28 |
| 45 | 772 | 709989847 | 2008-03-26 |
| 46 | 774 | 710080353 | 2005-04-30 |
| 47 | 774 | 710080351 | 2008-06-21 |
| 48 | 782 | 710243205 | 2010-04-16 |

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**Table (4 fields, 7,426 records) #3**

| | PURCHASE_ID | ITEM_ID | PRODUCT_ID | PRICE |
|---|---|---|---|---|
| 1 | 5723 | 16243 | 10726 | 197.040 |
| 2 | 5723 | 16643 | 10736 | 143.280 |
| 3 | 5723 | 15183 | 10746 | 129.840 |
| 4 | 5723 | 12442 | 10748 | 478.320 |
| 5 | 5724 | 15244 | 10732 | 114.840 |
| 6 | 5726 | 17640 | 10725 | 217.770 |
| 7 | 5727 | 14843 | 10723 | 103.480 |
| 8 | 5727 | 11494 | 10733 | 164.100 |
| 9 | 5727 | 10942 | 10742 | 198.550 |
| 10 | 5729 | 17131 | 10723 | 243.480 |
| 11 | 5729 | 18058 | 10730 | 279.060 |
| 12 | 5729 | 17320 | 10732 | 462.980 |
| 13 | 5730 | 17384 | 10738 | 672.390 |
| 14 | 5730 | 14449 | 10752 | 262.960 |
| 15 | 5731 | 13120 | 10731 | 43.940 |
| 16 | 5731 | 18201 | 10736 | 702.900 |
| 17 | 5732 | 14202 | 10731 | 45.620 |
| 18 | 5732 | 15940 | 10736 | 311.040 |
| 19 | 5732 | 14529 | 10747 | 260.960 |
| 20 | 5732 | 13400 | 10748 | 322.920 |
| 21 | 5734 | 16808 | 10730 | 460.000 |
| 22 | 5736 | 14193 | 10724 | 296.950 |
| 23 | 5736 | 13599 | 10747 | 308.460 |
| 24 | 5737 | 18262 | 10723 | 413.350 |
| 25 | 5737 | 15915 | 10725 | 486.900 |
| 26 | 5737 | 18351 | 10731 | 299.320 |
| 27 | 5738 | 15948 | 10734 | 296.370 |
| 28 | 5739 | 14698 | 10742 | 30.450 |
| 29 | 5740 | 14587 | 10737 | 201.880 |
| 30 | 5741 | 15278 | 10741 | 319.200 |
| 31 | 5743 | 13011 | 10747 | 30.570 |
| 32 | 5744 | 14427 | 10744 | 75.520 |
| 33 | 5745 | 13764 | 10747 | 60.560 |
| 34 | 5746 | 13768 | 10729 | 389.000 |
| 35 | 5746 | 16540 | 10738 | 112.280 |
| 36 | 5747 | 16269 | 10737 | 296.700 |
| 37 | 5747 | 16460 | 10752 | 228.080 |
| 38 | 5748 | 15546 | 10736 | 274.400 |
| 39 | 5748 | 15610 | 10739 | 803.840 |
| 40 | 5748 | 15387 | 10745 | 165.060 |
| 41 | 5748 | 17858 | 10751 | 35.970 |
| 42 | 5749 | 15579 | 10740 | 288.630 |
| 43 | 5751 | 14353 | 10724 | 542.400 |
| 44 | 5751 | 17425 | 10749 | 202.440 |
| 45 | 5753 | 13227 | 10727 | 883.100 |
| 46 | 5753 | 16161 | 10735 | 3.260 |
| 47 | 5754 | 16926 | 10738 | 247.230 |
| 48 | 5754 | 17166 | 10747 | 243.650 |
| 49 | 5755 | 14123 | 10723 | 2.060 |

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Table (4 fields, 162,308 records) #1

File  Edit  Generate

Table  Annotations

| | PURCHASE_ID | ITEM_ID | PRODUCT_ID | PRICE |
|---|---|---|---|---|
| 50 | 709124894 | 3961736888 | 10723 | 103.829 |
| 51 | 709124894 | 6968605706 | 10731 | 248.155 |
| 52 | 709124894 | 3381169640 | 10733 | 489.894 |
| 53 | 709124894 | 2661824219 | 10745 | 218.115 |
| 54 | 709124896 | 2425563739 | 10725 | 122.902 |
| 55 | 709124896 | 3401035015 | 10743 | 177.473 |
| 56 | 709124899 | 5132709309 | 10745 | 5.000 |
| 57 | 709180989 | 4111086975 | 10738 | 218.258 |
| 58 | 709180991 | 4811209254 | 10732 | 187.028 |
| 59 | 709217402 | 2820247795 | 10744 | 134.480 |
| 60 | 709217402 | 4059546003 | 10750 | 179.966 |
| 61 | 709217404 | 5280138902 | 10723 | 29.253 |
| 62 | 709217404 | 3708461011 | 10730 | 75.154 |
| 63 | 709217404 | 5461542282 | 10745 | 154.800 |
| 64 | 709217407 | 3508438221 | 10745 | 101.388 |
| 65 | 709217407 | 4499104787 | 10747 | 97.171 |
| 66 | 709217407 | 2429578776 | 10752 | 21.681 |
| 67 | 709241931 | 4586241359 | 10733 | 524.869 |
| 68 | 709241931 | 3362189910 | 10737 | 385.259 |
| 69 | 709241931 | 4752848943 | 10738 | 777.145 |
| 70 | 709402000 | 2545737026 | 10742 | 139.343 |
| 71 | 709540470 | 4474424011 | 10733 | 60.563 |
| 72 | 709540470 | 9231069230 | 10742 | 107.757 |
| 73 | 709540470 | 5549435105 | 10751 | 11.115 |
| 74 | 709703124 | 5052053060 | 10729 | 275.578 |
| 75 | 709703124 | 3559415984 | 10732 | 284.411 |
| 76 | 709703124 | 3262347456 | 10746 | 107.604 |
| 77 | 709703126 | 2217122699 | 10727 | 138.977 |
| 78 | 709703126 | 5720328122 | 10736 | 216.685 |
| 79 | 709832494 | 4461187851 | 10732 | 110.572 |
| 80 | 709832494 | 5663059323 | 10737 | 105.550 |
| 81 | 709832496 | 4453457964 | 10734 | 7.891 |
| 82 | 709832496 | 5165669904 | 10751 | 48.617 |
| 83 | 709832496 | 4799768600 | 10752 | 162.785 |
| 84 | 709832499 | 3490063901 | 10731 | 146.837 |
| 85 | 709832499 | 3582363421 | 10752 | 45.359 |
| 86 | 709832499 | 3457522994 | 18383 | 25.000 |
| 87 | 709832503 | 4605087362 | 10727 | 24.659 |
| 88 | 709832503 | 3141724728 | 10729 | 25.922 |
| 89 | 709832503 | 3003087759 | 10747 | 104.374 |
| 90 | 709832503 | 5918331446 | 10748 | 141.268 |
| 91 | 709832508 | 3995859676 | 10726 | 134.057 |
| 92 | 709832508 | 4629736639 | 10741 | 69.472 |
| 93 | 709832508 | 3783243096 | 10749 | 52.160 |
| 94 | 709832514 | 2010593714 | 10743 | 298.430 |
| 95 | 709989847 | 2911547641 | 10738 | 41.995 |
| 96 | 709989849 | 2868102404 | 10727 | 117.542 |
| 97 | 709989849 | 1434093524 | 10739 | 219.391 |
| 98 | 709989849 | 2864002849 | 10742 | 42.077 |

OK

ACME customers    Table
ACME purchases 1999 ..  Table
ACME purchases 2005 ..  Table
ACME orderlines 1999..  Table
ACME orderlines 2005..  Table
ACME mailing history..  Table
ACME postal code dat..  Table

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Table (2 fields, 21,000 records) #2

Table  Annotations

| | customer_id | mailing |
|---|---|---|
| 1 | 723.000 | XL original orange baseball cap |
| 2 | 723.000 | XS original red soccer shirt |
| 3 | 724.000 | XL original orange baseball cap |
| 4 | 725.000 | XL original orange baseball cap |
| 5 | 726.000 | XL original orange baseball cap |
| 6 | 727.000 | Standard tennisracket |
| 7 | 727.000 | XL original orange baseball cap |
| 8 | 727.000 | XS original red soccer shirt |
| 9 | 728.000 | XL original orange baseball cap |
| 10 | 729.000 | XL original orange baseball cap |
| 11 | 730.000 | Standard tennisracket |
| 12 | 730.000 | XL original orange baseball cap |
| 13 | 731.000 | XL original orange baseball cap |
| 14 | 731.000 | XS original red soccer shirt |
| 15 | 732.000 | XL original orange baseball cap |
| 16 | 732.000 | XS original red soccer shirt |
| 17 | 733.000 | XL original orange baseball cap |
| 18 | 733.000 | XS original red soccer shirt |
| 19 | 734.000 | XL original orange baseball cap |
| 20 | 734.000 | XS original red soccer shirt |
| 21 | 735.000 | XL original orange baseball cap |
| 22 | 736.000 | XL original orange baseball cap |
| 23 | 736.000 | XS original red soccer shirt |
| 24 | 737.000 | Standard tennisracket |
| 25 | 737.000 | XL original orange baseball cap |
| 26 | 738.000 | XL original orange baseball cap |
| 27 | 739.000 | XL original orange baseball cap |
| 28 | 740.000 | Standard tennisracket |
| 29 | 740.000 | XL original orange baseball cap |
| 30 | 741.000 | XL original orange baseball cap |
| 31 | 742.000 | XL original orange baseball cap |
| 32 | 742.000 | XS original red soccer shirt |
| 33 | 743.000 | XL original orange baseball cap |
| 34 | 743.000 | XS original red soccer shirt |
| 35 | 744.000 | XL original orange baseball cap |
| 36 | 745.000 | XL original orange baseball cap |
| 37 | 746.000 | Standard tennisracket |
| 38 | 746.000 | XL original orange baseball cap |
| 39 | 747.000 | Standard tennisracket |
| 40 | 747.000 | XL original orange baseball cap |
| 41 | 748.000 | XL original orange baseball cap |
| 42 | 749.000 | XL original orange baseball cap |
| 43 | 750.000 | XL original orange baseball cap |
| 44 | 751.000 | XL original orange baseball cap |
| 45 | 751.000 | XS original red soccer shirt |
| 46 | 752.000 | XL original orange baseball cap |
| 47 | 753.000 | XL original orange baseball cap |
| 48 | 753.000 | XS original red soccer shirt |
| 49 | 754.000 | XL original orange baseball cap |

OK

ACME customers    Table
ACME purchases 1999 ..  Table
ACME purchases 2005 ..  Table
ACME orderlines 1999..  Table
ACME orderlines 2005..  Table
ACME mailing history..  Table
ACME postal code dat..  Table

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ACME customers — Table
ACME purchases 1999 .. — Table
ACME purchases 2005 .. — Table
ACME orderlines 1999.. — Table
ACME orderlines 2005.. — Table
ACME mailing history.. — Table
ACME postal code dat.. — Table

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Table (4 fields, 4,983 records) #1

File    Edit    Generate

Table    Annotations

| | POSTAL_CODE | PCT_WORKING | PCT_HOUSE_OWNERS | PCT_WITH_CAR |
|---|---|---|---|---|
| 1 | 1001EZ | 76 | 60 | 87 |
| 2 | 1001FA | 76 | 60 | 88 |
| 3 | 1001GB | 70 | 48 | 88 |
| 4 | 1001PJ | 76 | 59 | 90 |
| 5 | 1001PR | 86 | 69 | 91 |
| 6 | 1002AI | 88 | 72 | 92 |
| 7 | 1002EH | 76 | 59 | 92 |
| 8 | 1002GZ | 79 | 67 | 91 |
| 9 | 1002JC | 76 | 57 | 87 |
| 10 | 1002JX | 80 | 64 | 92 |
| 11 | 1002MP | 83 | 67 | 91 |
| 12 | 1002VW | 83 | 70 | 92 |
| 13 | 1002WX | 80 | 67 | 92 |
| 14 | 1002YB | 73 | 57 | 93 |
| 15 | 1003IX | 71 | 56 | 89 |
| 16 | 1003QH | 80 | 62 | 90 |
| 17 | 1003QN | 88 | 74 | 90 |
| 18 | 1003TK | 91 | 72 | 92 |
| 19 | 1003UB | 67 | 49 | 93 |
| 20 | 1004CR | 80 | 60 | 88 |
| 21 | 1004IB | 81 | 65 | 89 |
| 22 | 1004PO | 84 | 70 | 94 |
| 23 | 1004XV | 85 | 70 | 88 |
| 24 | 1005GB | 81 | 64 | 87 |
| 25 | 1005GR | 77 | 62 | 88 |
| 26 | 1005SZ | 70 | 55 | 95 |
| 27 | 1006FL | 84 | 71 | 94 |
| 28 | 1006KL | 70 | 54 | 96 |
| 29 | 1006VP | 75 | 63 | 90 |
| 30 | 1006WP | 75 | 61 | 92 |
| 31 | 1007AE | 74 | 58 | 85 |
| 32 | 1007HU | 76 | 63 | 86 |
| 33 | 1007JU | 82 | 65 | 86 |
| 34 | 1007TN | 83 | 70 | 90 |
| 35 | 1007YV | 79 | 64 | 90 |
| 36 | 1008CD | 75 | 60 | 89 |
| 37 | 1008DS | 82 | 66 | 90 |
| 38 | 1008GT | 71 | 61 | 92 |
| 39 | 1008IP | 78 | 65 | 90 |
| 40 | 1008KU | 82 | 66 | 96 |
| 41 | 1008LJ | 82 | 66 | 91 |
| 42 | 1008NV | 72 | 57 | 91 |
| 43 | 1008YE | 84 | 69 | 89 |
| 44 | 1008YS | 81 | 64 | 89 |
| 45 | 1008YZ | 74 | 57 | 91 |
| 46 | 1009SH | 80 | 65 | 92 |
| 47 | 1009TV | 73 | 59 | 90 |
| 48 | 1009ZI | 80 | 66 | 89 |
| 49 | 1009ZS | 87 | 72 | 92 |

OK

## 2. Determine the relationships between datasets.

# 3. Renaming CUSTOMER_ID