

Chapter 2 Hands-on MIS Application Software Exercise Solution

This exercise requires some student knowledge of spreadsheet database functions. At a minimum, students should know how to sort the database by various criteria such as item description, item cost, vendor number, vendor, name, or A/P terms. Students may need to be told that A/P Terms is expressed as the number of days that the customer has to pay the vendor for a purchase. In other words, 30 designates net 30 days. The vendor that allows customers the longest amount of time to pay for an order would, of course, offer the most favorable payment terms.

Students will need to add additional columns for calculating the delivery time for each order. The delivery time can be calculated by subtracting the Order Date from the Arrival Date. Vendors with the shortest delivery times are obviously desirable.

These numbers are useful when trying to determine who is the vendor with the best on-time delivery track record. Students can use the DAVVERAGE or the SUMIF and COUNTIF functions to determine the average delivery time for each vendor. Students can also use one of the database functions to determine the vendor with the best accounts payable terms. To determine the vendor with the lowest prices for the same item when it is supplied by multiple vendors, students can filter the database using the item description. This filtered list can then be sorted by item cost and vendor number.

Orders and Suppliers

Vendor Name	Vendor No.	Order No.	Item No.	Item Description	Item Cost	Quantity
Spacetime Technologies	2	A0111	6489	O-Ring	\$ 3.00	900
Steelpin Inc.	6	A0115	5319	Shielded Cable/ft.	\$ 1.10	17,500
Steelpin Inc.	6	A0123	4312	Bolt-nut package	\$ 3.75	4,250
Steelpin Inc.	6	A0204	5319	Shielded Cable/ft.	\$ 1.10	16,500
Steelpin Inc.	6	A0205	5677	Side Panel	\$ 195.00	120
Steelpin Inc.	6	A0207	4312	Bolt-nut package	\$ 3.75	4,200
Alum Sheeting	5	A0223	4224	Bolt-nut package	\$ 3.95	4,500
Alum Sheeting	5	A0433	5417	Control Panel	\$ 255.00	500
Alum Sheeting	5	A0443	1243	Airframe fasteners	\$ 4.25	10,000
Alum Sheeting	5	A0446	5417	Control Panel	\$ 255.00	406
Spacetime Technologies	2	A0533	9752	Gasket	\$ 4.05	1,500
Spacetime Technologies	2	A0555	6489	O-Ring	\$ 3.00	1,100
Spacetime Technologies	2	A0622	9752	Gasket	\$ 4.05	1,550
Spacetime Technologies	2	A0666	5125	Shielded Cable/ft.	\$ 1.15	15,000
Spacetime Technologies	2	A0777	6489	O-Ring	\$ 3.00	1,050
Spacetime Technologies	2	A1222	4111	Bolt-nut package	\$ 3.55	4,200
Durrable Products	3	A1234	9399	Gasket	\$ 3.65	1,250
Durrable Products	3	A1235	9399	Gasket	\$ 3.65	1,450
Durrable Products	3	A1344	5454	Control Panel	\$ 220.00	550
Durrable Products	3	A1345	9399	Gasket	\$ 3.65	1,470
Durrable Products	3	A1346	9399	Gasket	\$ 3.65	1,985
Spacetime Technologies	2	A1444	4111	Bolt-nut package	\$ 3.55	4,250
Spacetime Technologies	2	A1445	4111	Bolt-nut package	\$ 3.55	4,200
Spacetime Technologies	2	A1449	4111	Bolt-nut package	\$ 3.55	4,600
Durrable Products	3	A1456	5454	Control Panel	\$ 220.00	500
Durrable Products	3	A1457	4569	Bolt-nut package	\$ 3.50	3,900
Durrable Products	3	A1567	1369	Airframe fasteners	\$ 4.20	15,000
Manley Valve	7	A2345	6431	O-Ring	\$ 2.85	1,250
Manley Valve	7	A2356	7258	Pressure Gauge	\$ 100.50	95
Manley Valve	7	A2367	9977	Panel Decal	\$ 1.00	525
Manley Valve	7	A2378	6431	O-Ring	\$ 2.85	1,350
Spacetime Technologies	2	A3467	4111	Bolt-nut package	\$ 3.55	4,800
Spacetime Technologies	2	A5689	4111	Bolt-nut package	\$ 3.55	4,585
Manley Valve	7	A9821	6431	O-Ring	\$ 2.85	1,300
Manley Valve	7	A9842	7258	Pressure Gauge	\$ 100.50	100
Manley Valve	7	A9865	9967	Hatch Decal	\$ 0.85	550
Manley Valve	7	A9876	9955	Door Decal	\$ 0.55	150
Pylon Accessories	8	A9999	6433	O-Ring	\$ 2.95	1,500
Alum Sheeting	5	B0247	1243	Airframe fasteners	\$ 4.25	9,000
Steelpin Inc.	6	B0445	4312	Bolt-nut package	\$ 3.75	4,150
Alum Sheeting	5	B0447	5634	Side Panel	\$ 185.00	150
Alum Sheeting	5	B0479	5634	Side Panel	\$ 185.00	140
Alum Sheeting	5	B0567	1243	Airframe fasteners	\$ 4.25	10,500
Pylon Accessories	8	B1111	9764	Gasket	\$ 3.75	1,980
Durrable Products	3	B1234	7258	Pressure Gauge	\$ 90.00	100
Durrable Products	3	B1345	7258	Pressure Gauge	\$ 90.00	120
Durrable Products	3	B1468	1369	Airframe fasteners	\$ 4.20	14,000
Durrable Products	3	B1589	5275	Shielded Cable/ft.	\$ 1.00	25,000
Durrable Products	3	B1666	1369	Airframe fasteners	\$ 4.20	10,000

Fast-Tie Aerospace	4	B2333	6321	O-Ring	\$ 2.45	1,300
Fast-Tie Aerospace	4	B2345	6321	O-Ring	\$ 2.45	1,200
Fast-Tie Aerospace	4	B2356	6321	O-Ring	\$ 2.45	2,500
Fast-Tie Aerospace	4	B2367	6321	O-Ring	\$ 2.45	1,250
Fast-Tie Aerospace	4	B2378	6321	O-Ring	\$ 2.45	1,500
Fast-Tie Aerospace	4	B2498	5689	Side Panel	\$ 175.00	150
Fast-Tie Aerospace	4	B2499	7268	Pressure Gauge	\$ 95.00	110
Fast-Tie Aerospace	4	B2511	7268	Pressure Gauge	\$ 95.00	105
Fast-Tie Aerospace	4	B2519	5462	Shielded Cable/ft.	\$ 1.05	22,500
Fast-Tie Aerospace	4	B2528	5689	Side Panel	\$ 175.00	175
Fast-Tie Aerospace	4	B2537	5462	Shielded Cable/ft.	\$ 1.05	21,500
Fast-Tie Aerospace	4	B2566	5462	Shielded Cable/ft.	\$ 1.05	23,000
Steelpin Inc.	6	B3022	5677	Side Panel	\$ 195.00	110
Steelpin Inc.	6	B3041	5234	Electrical Connector	\$ 1.65	4,500
Steelpin Inc.	6	B3042	5234	Electrical Connector	\$ 1.65	4,750
Steelpin Inc.	6	B3111	5234	Electrical Connector	\$ 1.65	4,850
Steelpin Inc.	6	B3222	8008	Machined Valve	\$ 645.00	150
Steelpin Inc.	6	B3333	8008	Machined Valve	\$ 645.00	100
Fast-Tie Aerospace	4	C0234	5166	Electrical Connector	\$ 1.25	5,650
Fast-Tie Aerospace	4	C0423	5689	Side Panel	\$ 175.00	155
Fast-Tie Aerospace	4	C0433	5462	Shielded Cable/ft.	\$ 1.05	22,500
Steelpin Inc.	6	C0456	5677	Side Panel	\$ 195.00	130
Steelpin Inc.	6	C0467	8008	Machined Valve	\$ 645.00	120
Steelpin Inc.	6	C0589	5319	Shielded Cable/ft.	\$ 1.10	18,100
Manley Valve	7	C1111	9955	Door Decal	\$ 0.55	125
Hulkey Fasteners	1	C1212	1122	Airframe fasteners	\$ 4.25	19,500
Hulkey Fasteners	1	C1313	3166	Electrical Connector	\$ 1.25	5,600
Pylon Accessories	8	C2211	9764	Gasket	\$ 3.75	1,850
Manley Valve	7	C2222	7258	Pressure Gauge	\$ 100.50	90
Hulkey Fasteners	1	C2323	1122	Airframe fasteners	\$ 4.25	15,500
Hulkey Fasteners	1	C2929	3166	Electrical Connector	\$ 1.25	5,500
Hulkey Fasteners	1	C3232	1122	Airframe fasteners	\$ 4.25	18,000
Manley Valve	7	C3333	8148	Machined Valve	\$ 655.50	125
Hulkey Fasteners	1	C3434	1122	Airframe fasteners	\$ 4.25	12,500
Hulkey Fasteners	1	C4545	1122	Airframe fasteners	\$ 4.25	15,000
Hulkey Fasteners	1	C5656	1122	Airframe fasteners	\$ 4.25	14,500
Hulkey Fasteners	1	C6765	5066	Shielded Cable/ft.	\$ 0.95	25,000
Hulkey Fasteners	1	C7875	3166	Electrical Connector	\$ 1.25	5,650
Hulkey Fasteners	1	C8854	3166	Electrical Connector	\$ 1.25	5,425
Hulkey Fasteners	1	C8989	9966	Hatch Decal	\$ 0.75	500
Pylon Accessories	8	D1111	9764	Gasket	\$ 3.75	1,800
Hulkey Fasteners	1	D1212	5066	Shielded Cable/ft.	\$ 0.95	17,500
Hulkey Fasteners	1	D2121	1122	Airframe fasteners	\$ 4.25	17,500
Hulkey Fasteners	1	D3232	1122	Airframe fasteners	\$ 4.25	17,000
Pylon Accessories	8	D3333	9764	Gasket	\$ 3.75	1,750

Cost per order	A/P Terms	Order Date	Arrival Date	Delivery Days
\$ 2,700.00	25	10/10/11	10/18/11	8
\$ 19,250.00	30	08/20/11	08/31/11	11
\$ 15,937.50	30	08/25/11	09/01/11	7
\$ 18,150.00	30	09/15/11	10/05/11	20
\$ 23,400.00	30	11/02/11	11/13/11	11
\$ 15,750.00	30	09/01/11	09/10/11	9
\$ 17,775.00	30	10/15/11	10/20/11	5
\$ 127,500.00	30	10/20/11	10/27/11	7
\$ 42,500.00	30	08/08/11	08/14/11	6
\$ 103,530.00	30	09/01/11	09/10/11	9
\$ 6,075.00	25	09/20/11	09/25/11	5
\$ 3,300.00	25	10/05/11	10/10/11	5
\$ 6,277.50	25	09/25/11	10/05/11	10
\$ 17,250.00	25	10/01/11	10/15/11	14
\$ 3,150.00	25	10/29/11	11/10/11	12
\$ 14,910.00	25	09/15/11	10/15/11	30
\$ 4,562.50	45	10/01/11	10/06/11	5
\$ 5,292.50	45	10/03/11	10/08/11	5
\$ 121,000.00	45	10/09/11	10/14/11	5
\$ 5,365.50	45	10/07/11	10/12/11	5
\$ 7,245.25	45	10/05/11	10/11/11	6
\$ 15,087.50	25	09/20/11	10/10/11	20
\$ 14,910.00	25	09/25/11	10/25/11	30
\$ 16,330.00	25	10/05/11	10/19/11	14
\$ 110,000.00	45	10/15/11	10/20/11	5
\$ 13,650.00	45	10/05/11	10/10/11	5
\$ 63,000.00	45	09/25/11	09/30/11	5
\$ 3,562.50	30	10/05/11	10/10/11	5
\$ 9,547.50	30	10/20/11	10/29/11	9
\$ 525.00	30	11/01/11	11/07/11	6
\$ 3,847.50	30	10/01/11	10/07/11	6
\$ 17,040.00	25	09/05/11	09/20/11	15
\$ 16,276.75	25	09/10/11	09/30/11	20
\$ 3,705.00	30	09/25/11	10/01/11	6
\$ 10,050.00	30	10/15/11	10/24/11	9
\$ 467.50	30	11/05/11	11/11/11	6
\$ 82.50	30	11/01/11	11/06/11	5
\$ 4,425.00	15	10/01/11	10/10/11	9
\$ 38,250.00	30	09/05/11	09/12/11	7
\$ 15,562.50	30	09/03/11	09/11/11	8
\$ 27,750.00	30	10/25/11	11/03/11	9
\$ 25,900.00	30	10/29/11	11/04/11	6
\$ 44,625.00	30	10/10/11	10/17/11	7
\$ 7,425.00	15	09/20/11	09/29/11	9
\$ 9,000.00	45	08/25/11	08/28/11	3
\$ 10,800.00	45	09/05/11	09/09/11	4
\$ 58,800.00	45	09/27/11	10/03/11	6
\$ 25,000.00	45	10/25/11	10/30/11	5
\$ 42,000.00	45	09/29/11	10/04/11	5

\$ 3,185.00	30	08/25/11	09/04/11	10
\$ 2,940.00	30	09/12/11	09/23/11	11
\$ 6,125.00	30	09/25/11	10/04/11	9
\$ 3,062.50	30	10/12/11	10/21/11	9
\$ 3,675.00	30	10/25/11	11/02/11	8
\$ 26,250.00	30	11/01/11	11/09/11	8
\$ 10,450.00	30	11/01/11	11/12/11	11
\$ 9,975.00	30	11/05/11	11/16/11	11
\$ 23,625.00	30	08/20/11	08/26/11	6
\$ 30,625.00	30	11/05/11	11/15/11	10
\$ 22,575.00	30	08/15/11	08/22/11	7
\$ 24,150.00	30	08/10/11	08/15/11	5
\$ 21,450.00	30	11/05/11	11/17/11	12
\$ 7,425.00	30	08/28/11	09/05/11	8
\$ 7,837.50	30	09/05/11	09/13/11	8
\$ 8,002.50	30	09/02/11	09/11/11	9
\$ 96,750.00	30	10/15/11	10/26/11	11
\$ 64,500.00	30	10/10/11	10/21/11	11
\$ 7,062.50	30	10/01/11	10/06/11	5
\$ 27,125.00	30	10/25/11	11/03/11	9
\$ 23,625.00	30	08/25/11	09/02/11	8
\$ 25,350.00	30	10/28/11	11/07/11	10
\$ 77,400.00	30	10/28/11	11/04/11	7
\$ 19,910.00	30	08/25/11	09/05/11	11
\$ 68.75	30	11/05/11	11/10/11	5
\$ 82,875.00	30	08/05/11	08/13/11	8
\$ 7,000.00	30	08/25/11	08/29/11	4
\$ 6,937.50	15	09/25/11	10/05/11	10
\$ 9,045.00	30	10/10/11	10/17/11	7
\$ 65,875.00	30	09/04/11	09/12/11	8
\$ 6,875.00	30	09/01/11	09/06/11	5
\$ 76,500.00	30	10/01/11	10/08/11	7
\$ 81,937.50	30	10/10/11	10/17/11	7
\$ 53,125.00	30	09/05/11	09/11/11	6
\$ 63,750.00	30	09/08/11	09/15/11	7
\$ 61,625.00	30	09/28/11	10/03/11	5
\$ 23,750.00	30	09/05/11	09/12/11	7
\$ 7,062.50	30	09/05/11	09/10/11	5
\$ 6,781.25	30	09/10/11	09/15/11	5
\$ 375.00	30	08/25/11	08/31/11	6
\$ 6,750.00	15	09/28/11	10/05/11	7
\$ 16,625.00	30	09/15/11	09/22/11	7
\$ 74,375.00	30	10/25/11	11/03/11	9
\$ 72,250.00	30	10/11/11	10/19/11	8
\$ 6,562.50	15	09/20/11	09/25/11	5

Report 1: Most On-time Suppliers

Vendor No.	Vendor Name	Average Delivery Time
3	Durrable Products	4.92
7	Manley Valve	6.45
1	Hulkey Fasteners	6.47
5	Alum Sheeting	7.00
8	Pylon Accessories	8.00
4	Fast-Tie Aerospace	8.47
6	Steelpin Inc.	9.45
2	Spacetime Technologies	15.91

Best Accounts Payable Terms

Vendor No.	Vendor Name	Best A/P T
1	Hulkey Fasteners	30
Vendor No.		
2	Spacetime Technologies	25
Vendor No.		
3	Durable Products	45
Vendor No.		
4	Fast-Tie Aerospace	30
Vendor No.		
5	Alum Sheeting	30
Vendor No.		
6	Steelpin Inc.	30
Vendor No.		
7	Manley Valve	30
Vendor No.		
8	Pylon Accessories	15

Vendor Name	Vendor No.	Order No.	Item No.	Item Description	Item Cost	Quantity	Cost per order	A/P Terms
Durable Products	3	A1234	9399	Gasket	\$ 3.65	1,250	\$ 4,562.50	45
Durable Products	3	A1235	9399	Gasket	\$ 3.65	1,450	\$ 5,292.50	45
Durable Products	3	A1345	9399	Gasket	\$ 3.65	1,470	\$ 5,365.50	45
Durable Products	3	A1346	9399	Gasket	\$ 3.65	1,985	\$ 7,245.25	45
Pylon Accessories	8	B1111	9764	Gasket	\$ 3.75	1,980	\$ 7,425.00	15
Pylon Accessories	8	C2211	9764	Gasket	\$ 3.75	1,850	\$ 6,937.50	15
Pylon Accessories	8	D1111	9764	Gasket	\$ 3.75	1,800	\$ 6,750.00	15
Pylon Accessories	8	D3333	9764	Gasket	\$ 3.75	1,750	\$ 6,562.50	15
Spacetime Technologies	2	A0533	9752	Gasket	\$ 4.05	1,500	\$ 6,075.00	25
Spacetime Technologies	2	A0622	9752	Gasket	\$ 4.05	1,550	\$ 6,277.50	25

Order Date	Arrival Date	Delivery Days
10/01/08	10/06/08	5
10/03/08	10/08/08	5
10/07/08	10/12/08	5
10/05/08	10/11/08	6
09/20/08	09/29/08	9
09/25/08	10/05/08	10
09/28/08	10/05/08	7
09/20/08	09/25/08	5
09/20/08	09/25/08	5
09/25/08	10/05/08	10