

Excel #9: Filtering

In general, it is always best to use a database to handle complex filtering and lookup. Create a query to retrieve exactly the data you need.

As a second-best option, built a PivotTable and use the interactive commands to select data and compute subtotals.

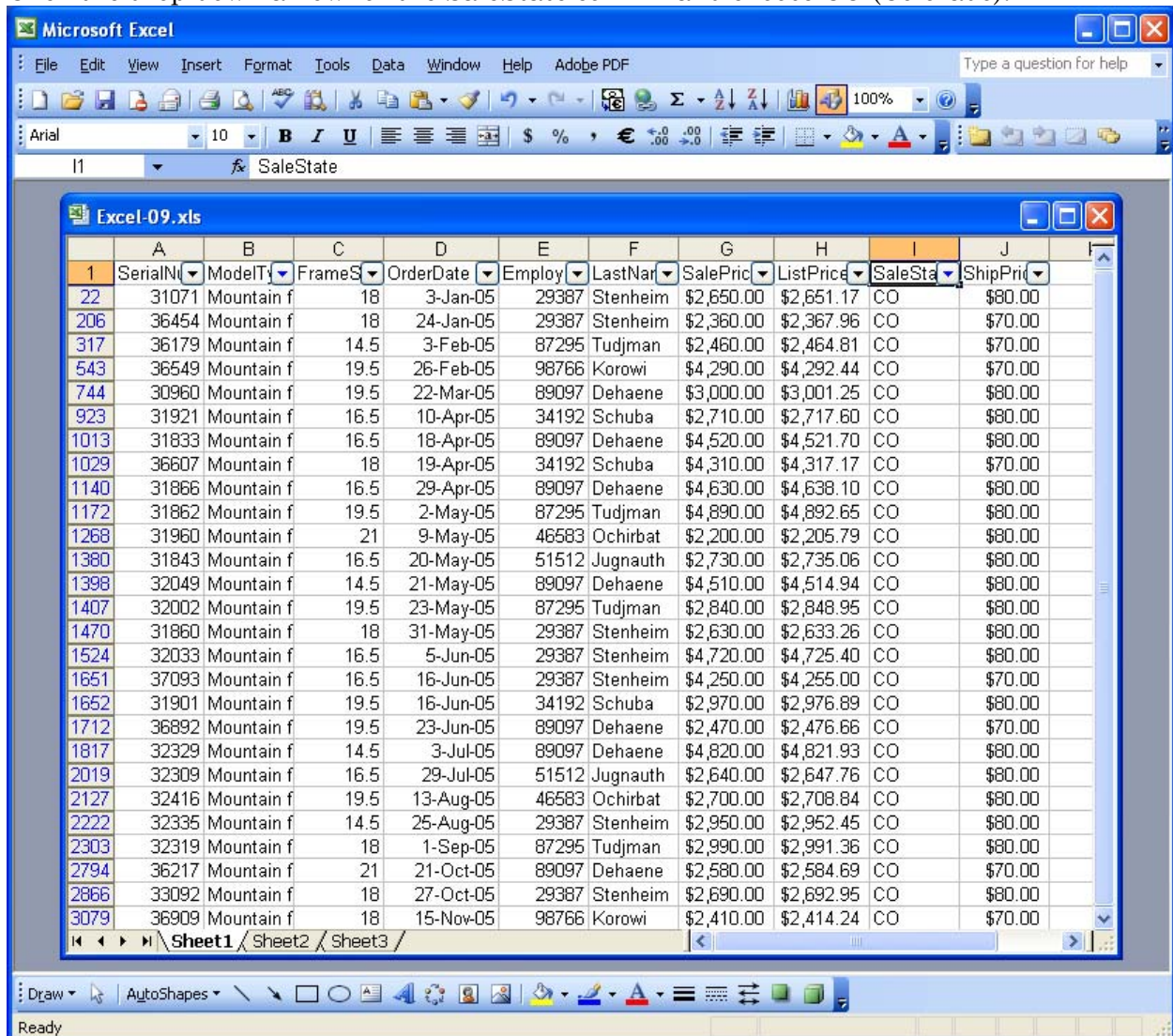
As a last resort, you use the internal Excel data commands.

Open the Sample spreadsheet containing bicycle sales data from the Rolling Thunder Bicycle company application.

Choose Data/Filter/AutoFilter from the main menu.

Click the drop-down arrow for the ModelType column and choose Mountain full.

Click the drop-down arrow for the SaleState column and choose CO (Colorado).



The screenshot shows the Microsoft Excel interface with a spreadsheet titled 'Excel-09.xls'. The spreadsheet contains bicycle sales data with columns: SerialNo, ModelType, FrameS, OrderDate, Employ, LastName, SalePrice, ListPrice, SaleState, and ShipPrice. The 'SaleState' column is filtered to 'CO' and the 'ModelType' column is filtered to 'Mountain full'. The data is sorted by OrderDate.

	A	B	C	D	E	F	G	H	I	J
1	SerialNo	ModelType	FrameS	OrderDate	Employ	LastName	SalePrice	ListPrice	SaleState	ShipPrice
22	31071	Mountain f	18	3-Jan-05	29387	Stenheim	\$2,650.00	\$2,651.17	CO	\$80.00
206	36454	Mountain f	18	24-Jan-05	29387	Stenheim	\$2,360.00	\$2,367.96	CO	\$70.00
317	36179	Mountain f	14.5	3-Feb-05	87295	Tudjman	\$2,460.00	\$2,464.81	CO	\$70.00
543	36549	Mountain f	19.5	26-Feb-05	98766	Korowi	\$4,290.00	\$4,292.44	CO	\$70.00
744	30960	Mountain f	19.5	22-Mar-05	89097	Dehaene	\$3,000.00	\$3,001.25	CO	\$80.00
923	31921	Mountain f	16.5	10-Apr-05	34192	Schuba	\$2,710.00	\$2,717.60	CO	\$80.00
1013	31833	Mountain f	16.5	18-Apr-05	89097	Dehaene	\$4,520.00	\$4,521.70	CO	\$80.00
1029	36607	Mountain f	18	19-Apr-05	34192	Schuba	\$4,310.00	\$4,317.17	CO	\$70.00
1140	31866	Mountain f	16.5	29-Apr-05	89097	Dehaene	\$4,630.00	\$4,638.10	CO	\$80.00
1172	31862	Mountain f	19.5	2-May-05	87295	Tudjman	\$4,890.00	\$4,892.65	CO	\$80.00
1268	31960	Mountain f	21	9-May-05	46583	Ochirbat	\$2,200.00	\$2,205.79	CO	\$80.00
1380	31843	Mountain f	16.5	20-May-05	51512	Jugnauth	\$2,730.00	\$2,735.06	CO	\$80.00
1398	32049	Mountain f	14.5	21-May-05	89097	Dehaene	\$4,510.00	\$4,514.94	CO	\$80.00
1407	32002	Mountain f	19.5	23-May-05	87295	Tudjman	\$2,840.00	\$2,848.95	CO	\$80.00
1470	31860	Mountain f	18	31-May-05	29387	Stenheim	\$2,630.00	\$2,633.26	CO	\$80.00
1524	32033	Mountain f	16.5	5-Jun-05	29387	Stenheim	\$4,720.00	\$4,725.40	CO	\$80.00
1651	37093	Mountain f	16.5	16-Jun-05	29387	Stenheim	\$4,250.00	\$4,255.00	CO	\$70.00
1652	31901	Mountain f	19.5	16-Jun-05	34192	Schuba	\$2,970.00	\$2,976.89	CO	\$80.00
1712	36892	Mountain f	19.5	23-Jun-05	89097	Dehaene	\$2,470.00	\$2,476.66	CO	\$70.00
1817	32329	Mountain f	14.5	3-Jul-05	89097	Dehaene	\$4,820.00	\$4,821.93	CO	\$80.00
2019	32309	Mountain f	16.5	29-Jul-05	51512	Jugnauth	\$2,640.00	\$2,647.76	CO	\$80.00
2127	32416	Mountain f	19.5	13-Aug-05	46583	Ochirbat	\$2,700.00	\$2,708.84	CO	\$80.00
2222	32335	Mountain f	14.5	25-Aug-05	29387	Stenheim	\$2,950.00	\$2,952.45	CO	\$80.00
2303	32319	Mountain f	18	1-Sep-05	87295	Tudjman	\$2,990.00	\$2,991.36	CO	\$80.00
2794	36217	Mountain f	21	21-Oct-05	89097	Dehaene	\$2,580.00	\$2,584.69	CO	\$70.00
2866	33092	Mountain f	18	27-Oct-05	29387	Stenheim	\$2,690.00	\$2,692.95	CO	\$80.00
3079	36909	Mountain f	18	15-Nov-05	98766	Korowi	\$2,410.00	\$2,414.24	CO	\$70.00

Choose Data/Filter/AutoFilter (or ShowAll) on the main menu to remove the filter.

You can build relatively advanced filters as well, but always try to use a database first.

Switch to a new worksheet (or insert one if necessary).

In cell B1, enter: ModelType

In cell B2, enter: Mountain

In cell C1, enter: SalePrice

In cell C2, enter: >4800

Switch back to the first/data worksheet.

Choose Data/Filter/Advanced Filter from the main menu.

Click the Select button for the Criteria Range.

Click the tab for the second worksheet.

Select the four cells you entered (B1..C2)

Press the Enter key.

Select the SalePrice column.

Click the Sort Descending icon in the main toolbar.

Choose the option to Continue with the current selection.

ModelType SalePrice

Mountain >4800

	A	B	C	D	E	F	G	H	I	J
1	SerialNum	ModelType	FrameSize	OrderDate	Employeee	LastName	SalePrice	ListPrice	SaleState	ShipPrice
41	31019	Mountain full	16.5	5-Jan-05	15293	Venetiaan	\$4,900.00	\$4,613.61	NY	\$80.00
89	30942	Mountain full	16.5	11-Jan-05	34192	Schuba	\$4,900.00	\$4,614.19	CA	\$80.00
125	30817	Mountain	21	15-Jan-05	98766	Korowi	\$4,900.00	\$4,614.19	WA	\$80.00
178	30988	Mountain full	14.5	20-Jan-05	87295	Tudjman	\$4,900.00	\$4,618.52	TX	\$80.00
183	31049	Mountain full	14.5	20-Jan-05	34192	Schuba	\$4,900.00	\$4,618.52	IL	\$80.00
203	31096	Mountain full	21	23-Jan-05	46583	Ochirbat	\$4,890.00	\$4,618.52	NJ	\$80.00
215	30824	Mountain	18	24-Jan-05	89097	Dehaene	\$4,890.00	\$4,618.52	CA	\$80.00
267	30819	Mountain	16.5	30-Jan-05	29387	Stenheim	\$4,890.00	\$4,618.52	NM	\$80.00
279	31002	Mountain full	16.5	31-Jan-05	29387	Stenheim	\$4,890.00	\$4,618.52	IL	\$80.00
294	31029	Mountain full	21	2-Feb-05	46583	Ochirbat	\$4,890.00	\$4,623.54	MS	\$80.00
303	31006	Mountain full	18	2-Feb-05	34192	Schuba	\$4,890.00	\$4,624.58	NH	\$80.00
323	31017	Mountain full	18	4-Feb-05	89097	Dehaene	\$4,890.00	\$4,624.58	CA	\$80.00
407	30953	Mountain full	21	12-Feb-05	87295	Tudjman	\$4,890.00	\$4,624.58	CA	\$80.00
514	31057	Mountain full	14.5	21-Feb-05	51512	Jugnauth	\$4,890.00	\$4,624.58	MI	\$80.00
535	30921	Mountain full	18	25-Feb-05	51512	Jugnauth	\$4,890.00	\$4,626.46	NY	\$80.00
564	30959	Mountain full	18	28-Feb-05	98766	Korowi	\$4,890.00	\$4,626.46	MO	\$80.00
633	30828	Mountain	16.5	8-Mar-05	89097	Dehaene	\$4,880.00	\$4,626.46	MI	\$80.00
644	31053	Mountain full	16.5	11-Mar-05	87295	Tudjman	\$4,880.00	\$4,632.09	CA	\$80.00
665	31089	Mountain full	19.5	13-Mar-05	51512	Jugnauth	\$4,880.00	\$4,636.80	CT	\$80.00
838	32044	Mountain full	21	2-Apr-05	15293	Venetiaan	\$4,880.00	\$4,638.10	MA	\$80.00
853	31867	Mountain full	18	4-Apr-05	51512	Jugnauth	\$4,880.00	\$4,638.10	MN	\$80.00
903	31973	Mountain full	19.5	8-Apr-05	46583	Ochirbat	\$4,880.00	\$4,644.03	IN	\$80.00
955	32090	Mountain	18	13-Apr-05	29387	Stenheim	\$4,870.00	\$4,644.03	FL	\$80.00
1040	31811	Mountain full	18	20-Apr-05	34192	Schuba	\$4,870.00	\$4,644.03	IL	\$80.00
1082	32147	Mountain	16.5	24-Apr-05	51512	Jugnauth	\$4,870.00	\$4,648.98	HI	\$80.00
1128	31797	Mountain full	14.5	29-Apr-05	34192	Schuba	\$4,870.00	\$4,648.98	IN	\$80.00
1172	31862	Mountain full	19.5	2-May-05	87295	Tudjman	\$4,870.00	\$4,648.98	CO	\$80.00

You can create relatively complex conditions.
 Conditions that are displayed on the same row are joined with an AND clause.
 Different rows are connected with an OR clause.
 But be careful. The entire row is connected by OR, not just a single column.

ModelType SalePrice
 Mountain >4800
 Race

The filter condition in this example translates to:
 ((ModelType = Mountain) AND (SalePrice > 4800))
 OR (ModelType=Race)

Notice that no condition is applied to the price of the Race bike.