

CASE

6

Terrell & Terrell Property Management, Inc.

Spreadsheet Case

Difficulty Rating: ★★

SKILLS CHECK

You should review the following areas:

SPREADSHEET SKILLS

- | | |
|----------------------------------|-------------------------------|
| ✓ AVERAGE Function | ✓ MIN Function |
| ✓ Cell Formatting | ✓ SUM Function |
| ✓ Chart | ✓ Template |
| ✓ External Cell Reference | ✓ Worksheet Formatting |
| ✓ MAX Function | |

CASE BACKGROUND

Reyna and Rupert Terrell own a small property management business, consisting of four duplex units, three rent houses, and three commercial buildings. As part of their property management business, the Terrells track each unit's income and expenses, as well as the overall income and expenses for their business. Although their existing file management system is adequate, the Terrells want a more flexible property management system that will enable them to monitor and analyze their business's cash flows at varying levels of detail.

The Terrells ask you to prepare a standard cash flow worksheet template that summarizes each rental property's income and expenses, a summary worksheet that summarizes the business's income and expenses from all the rental properties, and several workbooks that will be used to organize the cash flow worksheets. Designing the cash flow worksheets requires you to format cells and worksheets appropriately, use several functions, use external workbook references, and work with multiple workbooks.

CASE SCENARIO

Last year Reyna and Rupert Terrell were looking for ways to earn additional retirement income. After locating, purchasing, and renovating several properties in the Crater Lake area, they began renting their properties to the public. The Terrells currently own four duplex units, three rent houses, and three commercial buildings. Although the rental properties generate a modest income for the Terrells, maintaining the properties can be expensive at times, because all units have appliance, property tax, insurance, advertisement, routine maintenance, materials, cable, utility, labor, and miscellaneous expenses.

The duplexes, rent houses, and commercial buildings are equipped with major appliances, such as dishwashers, washers, dryers, and refrigerators. When an appliance is no longer repairable, the Terrells replace the appliance and charge the expense to the unit. The Terrells must also pay property tax and insurance for each unit. The property tax is paid once a year, usually in December, and insurance is paid twice a year, generally in June and December. Routine maintenance includes such things as mowing, general landscaping, replacing air filters, cleaning empty rental units, and hauling off trash. When a rental unit requires repairs or routine maintenance, the Terrells record the labor charges, as well as the cost of the materials. Materials include any necessary items used to repair or clean a unit. As an enticement for potential renters, the Terrells pay for basic cable, even for the commercial buildings. When a unit is vacant, the Terrells place an advertisement in the local newspaper and run the advertisement until the unit is rented.

The Terrells use a simple filing system to track each rental unit's income and expenses. Although the filing system provides the Terrells with the necessary income and expense data, analyzing the income and expense data is cumbersome at best. The Terrells realize that using a spreadsheet application will make their property management activities much easier, more efficient, and more accurate. The Terrells ask you to organize their income and expense data into electronic workbooks, so that they can better manage their rental properties.

Design Specifications

The Terrells ask you to create a cash flow worksheet for each rental unit and a summary cash flow worksheet. As the Terrells want each cash flow worksheet to have a similar look and feel and will use the cash flow worksheet for future properties that they purchase, you decide that a standard cash flow template is necessary. Once you create the standard cash flow template, the Terrells can use the template to enter income and expense data for each rental unit. Figure 1 provides a sketch of a partially completed cash flow worksheet. (Figure 1 shows a cash flow worksheet for six months. Your cash flow worksheet should accommodate 12 months.)

As Figure 1 shows, the cash flow worksheet records the monthly income and expenses for a particular rental unit. Although not shown in Figure 1, the Terrells want to know each month's total expenses, monthly cash flow, overall cash flow, year-to-date total for each expense, and year-to-date total income. The monthly cash flow is the difference between the monthly income and total monthly expenses, and the overall cash flow is a summation of the monthly cash flow up to and including the current month. The year-to-date total for each

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expense sums the expenses incurred so far that year. The year-to-date total income displays the total income received so far in a given year.

Figure 1: Cash Flow Worksheet

Terrell and Terrell Property Management, Inc. Cash Flow Worksheet (Current Date)						
	1/1/08	2/1/08	3/1/08	4/1/08	5/1/08	6/1/08
Rent						
Expenses						
Advertising						
Appliances						
Cable						
Insurance						
Labor						
Material						
Miscellaneous						
Property						
Routine Maintenance						
Utilities						

The Terrells want the individual cash flow worksheets grouped according to property type. Since they have three main types of rental properties, you create Duplex, House, and Commercial workbooks. After the cash flow worksheets and workbooks are created, you prepare a Summary worksheet and place the Summary worksheet in its own Summary workbook. The Summary worksheet summarizes the income and expense data contained in the other workbooks. The Summary worksheet should show the name of the rental unit, as well as the rental unit's year-to-date income and year-to-date total for each expense category. The Summary worksheet should also show the total expenses and overall cash flow for each property type (commercial, duplex, and house). As the Summary worksheet must reference data contained in multiple workbooks, you use external cell references in the Summary worksheet to retrieve the necessary data from the other workbooks. (At this point, you may wish to review your system's online help feature to review external cell references.) The Terrells also request that the Summary worksheet resemble the individual cash flow worksheets.

Information Specifications

The Terrells will use the cash flow worksheets to better manage the income and expenses for their rental units. Each individual cash flow worksheet provides information specific to a particular rental unit's monthly income and expenses, year-to-date income and expenses, monthly cash flow, and overall cash flow. In addition to this information, the Terrells request average, minimum, and maximum values for each expense category in the individual cash flow worksheets, as well as the summary worksheet. The Terrells ask you to use data from the Summary worksheet to prepare two charts. The first chart compares the income for each unit, and the second chart compares the overall expenses for each unit. (You may select the chart types.)

In addition to the information requirements specified above, Mr. and Mrs. Terrell request answers to the following questions. Using the newly designed worksheets, provide Mr. and Mrs. Terrell with answers to these questions.

1. What was the rental income from all units last year?
2. On average, how much was spent in each expense category this past year?
3. Based on data contained in the Summary worksheet, where did the Terrells incur the largest expense?
4. What are the total revenues by property type?
5. What are the total expenses by property type?
6. What is the operating income by property type?
7. Should the Terrells raise the rent on any of their properties? Why?

Implementation Concerns

Although you are free to work with the design of your worksheets, each worksheet should have a consistent, professional appearance. Also, you should use appropriate formatting for the cells and worksheets. For instance, dollar values should display a dollar sign and be formatted to two decimal places. Since the worksheets have similar categories and contain similar data, you should strive to keep the worksheets' appearances similar.

The Terrells will use the individual cash flow worksheets to maintain the income and expense data for their individual rental property units. The Summary worksheet summarizes the data contained in the individual cash flow worksheets. As the Summary worksheet references external data, you will use external workbook references. Although you can manually enter an external workbook reference into a Summary worksheet cell, it is easier and less error-prone, if you use the point-and-click method. (For more information about external workbook references, use your system's online help feature.)

Test Your Design

After creating the Commercial, Duplex, House, and Summary workbooks, you should test your design. Perform the following steps.

1. Prepare a cash flow worksheet and update the Summary worksheet for the following property.

The Terrells purchased a third duplex and currently rent one of the duplex units. (The second unit is undergoing renovations.) The duplex unit is located at 1412 Mockingbird and rents for \$1,950.00 a month. The duplex unit was rented in November and December. October expenses include \$2,500.00 in labor, \$705.00 in materials, \$25.00 in advertising, \$98.00 in utilities, \$1,050.72 in appliances, and \$50.00 in routine maintenance. November expenses include \$84.48 in cable, \$98.00 in utilities, and \$50.00 in routine maintenance. December expenses include \$84.48 in cable, \$98.00 in utilities, and \$50.00 in routine maintenance. Property taxes and an insurance premium are paid in December. The property taxes are \$1,050.00, and the insurance premium is \$600.00.

2. The Terrells want a chart comparing the year-to-date income for each rental unit category. (You may choose which chart type to use.)
3. What is the overall cash flow for the rental properties?

CASE DELIVERABLES

In order to satisfactorily complete this case, you should build the workbooks as described in the case scenario and then prepare both written and oral presentations. Unless otherwise specified, submit the following deliverables to your professor.

1. A written report discussing any assumptions you have made about the case and the key elements of the case. Additionally, what features did you add to make the worksheets and workbooks more functional? User friendly? (Please note that these assumptions cannot violate any of the requirements specified above and must be approved by your professor.)
2. A printout of each worksheet and chart.
3. A printout of each worksheet's formulas.
4. Electronic, working copies of your workbooks that meet the criteria mentioned in the case scenario and specifications sections.
5. Results for each question posed above. (A memo to your instructor discussing these results should also be provided.)