Capstone Exercise

MyITLab Grader

You work for a company that owns five apartment complexes in Nevada. The owners want some specific information about rentals by apartment size (e.g., number of bedrooms per apartment). The owners are also considering purchasing a sixth apartment complex and asked you to perform some financial calculations and analyses.

Apartment Unit Statistics

The owners decided that unoccupied units should be remodeled if the last remodel took place before 2005. Furthermore, they have decided to calculate the pet deposit based on the number of bedrooms and remodel date.

a. Open *e07c1Apartment*, click the **Summary worksheet**, and then save it as **e07c1Apartment_LastFirst**.

b. Insert functions in the Pet Deposit column to calculate the required pet deposit for each unit. If the unit has two or more bedrooms and was remodeled after 2008, the deposit is $125; if not, it is $75.

c. Enter a nested function in the Recommendation column to indicate *Need to remodel* if the apartment is unoccupied and was last remodeled before 2005. For all other apartments, display *No change*.

Create a Search

The owners would like to be able to perform a simple search by ranking to identify which apartment complex is at that ranking.

a. Type **101** in **cell B2**; this is the cell the owners will use to research apartment unit prices.

b. Insert a nested lookup function in **cell E2** that will look up the rental price in column D using the apartment number referenced in cell B2.

Manage a Database List

The Database worksheet contains an identical list of apartments. One of the owners wants to know how many two- and three-bedroom apartments should be remodeled, the value of lost rent, and the year of the oldest remodel on those units. You need to perform an advanced filter and enter some database functions to address the owner's concerns.

a. Click the **Database worksheet tab**.

b. Enter conditions in the Criteria Range for unoccupied two- and three-bedroom apartments that need to be remodeled.

c. Perform an advanced filter based on the criteria range. Filter the existing database in place.

d. Enter database functions to calculate the database statistics in the **range C8:C10**.

Loan Amortization

The owners are considering purchasing a sixth apartment complex for $850,000 with a down payment of $375,000 for 30 years at 5.75%, with the first payment due on March 20, 2015. You will perform internal calculations and build a loan amortization table.

a. Click the **Loan worksheet tab**.

b. Enter the loan parameters in the Input Area and insert formulas to perform calculations in the Summary Calculations.

c. Complete the loan amortization table. Use a date function for the Payment Date column and financial functions for the Interest Paid and Principal Payment columns.

d. Create a footer with your name on the left side, the sheet name code in the center, and the file name code on the right side of each worksheet. Adjust page setup options as needed.

e. Save and close the workbook, and submit based on your instructor's directions.

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Capstone Exercise

MyITLab Grader

You are the HR director for a Fortune 500 marketing company. You would like to research employees' overall salaries as they affect job satisfaction. To complete this task, you administered a survey to a cross-section sample of all employees across the company.

Use Conditional Math and Statistical Functions

You would like to calculate basic demographic information about the sample you have collected. You will calculate the average job satisfaction and salary by position, as well as specific information regarding directors and managers.

a. Open *e08c1Satisfaction* and save it as **e08c1Satisfaction_LastFirst**.

b. Enter a conditional function in **cell I5** to calculate average satisfaction for support staff. Format the results with the **Number format** and two decimal positions.

c. Use the fill handle in **cell I5** to copy the function down through the **range I6:I9**. Be sure to use the appropriate mixed or absolute referencing.

d. Enter a function in **cell J5** to calculate the average salary of all support staff in the survey.

e. Use the fill handle in **cell J5** to copy the function down through the **range J6:J9**. Be sure to use the appropriate mixed or absolute referencing.

f. Enter a function in **cell I12** to calculate the number of directors in the survey that have a job satisfaction level of 4 or higher.

g. Enter a function in **cell I13** to calculate the average salary of directors in the survey that have a job satisfaction level of 4 or higher.

h. Adapt the process used in steps f and g to calculate the total number and average salary of managers that have a job satisfaction of 4 or higher.

Calculate Relative Standing with Statistical Functions

To continue your analysis, you will calculate salary rankings as well as salary quartile thresholds.

a. Enter a function in **cell F4** that calculates the rank of the salary in **cell D4** against the range of salaries in the dataset.

b. Use the fill handle to copy the function down **column F**. Be sure to include the appropriate absolute or mixed cell references.

c. Enter a function in **cell I20** to calculate the minimum quartile value in the list of salaries.

d. Use the fill handle to complete the remaining quartile values in **range I21:I24**. Be sure to include the appropriate absolute or mixed cell references.

Measure of Central Tendency

You would like to test the strength of the relationship between sa isfaction and salary. You will use the CORREL function to con plete your calculation.

a. Enter a function in **cell H27** to calculate the correlation of columns D and E.

b. Format the results as **Number Format** with two decima positions.

Using the Analysis ToolPak

To complete your analyses, you will create a summary of descrip tive statistics using the Analysis ToolPak. Be sure to activate th Analysis ToolPak add-in before beginning the next steps.

a. Click the **DATA tab** and select **Data Analysis**. Select **Descriptive Statistics** and click **OK**.

b. Complete the input criteria using the salary data in **column D**.

c. Set the output functions to display on a new worksheet.

d. Name the newly created worksheet **Descriptive Statistics**.

Create a Histogram

Your last step is to create a histogram with the Analysis ToolPak based on the quartile criteria determined earlier.

a. Click the **DATA tab** and select **Data Analysis**. Select **Histogram** and click **OK**.

b. Use the salaries in **column D** as the input range.

c. Use the quartiles in the **range I20:I24** as the bin range.

d. Output the data in **cell H29**. Be sure to include a chart with the output.

e. Format the chart and output table accordingly.

f. Save and close the workbook, and submit based on your instructor's directions.

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Capstone Exercise

MyITLab® Grader

You are an accounting assistant for Downtown Theater in San Diego. The theater hosts touring Broadway plays and musicals five days a week, including matinee and evening performances on Saturday. You want to analyze weekly and monthly ticket sales by seating type.

Data Validation

You notice a few occurrences in which it appears more tickets were sold than seats were available. Therefore, you decide to set a validation rule for Week 1.

a. Open *e09c1Theater10* and save it as **e09c1Theater10_LastFirst**.

b. Select the number of daily Orchestra Front tickets sold for Week 1 in the **range C3:G3**.

c. Create a validation rule to accept only numbers that are less than or equal to the available value in cell B3 (i.e., whole numbers between 0 and 86). The input message should display the ticket type in the title bar and should instruct the user to **Enter the number of tickets sold per day.** Use a Stop icon for invalid data, with a title and specific instructions on what to do to correct invalid data entry.

d. Create respective validation rules for the number of tickets sold for the remaining ticket types.

e. Circle invalid data entry. Change each invalid entry to the maximum number of available seats. Save the workbook.

Group Worksheets and Enter Formulas

You need to calculate the daily revenue by seating type (such as Orchestra Front), the weekly seating totals, and the total daily revenue in the weekly worksheets.

a. Group the four weekly worksheets.

b. Enter a formula to calculate Sunday's Orchestra Front revenue, which is based on the number of seats sold and the price per seat found in cells B15:B22. Use relative and mixed cell references correctly.

c. Copy the formula for the Sunday column to the other weekdays. If you constructed the formula correctly, you should not have to edit the copied formulas.

d. Insert formulas to calculate the weekly seating totals in column H and the total daily revenue in row 23. Include the revenue grand total for the week. Save the workbook.

Format Grouped Worksheets

You want to indent the word *Totals*, format the monetary values in the revenue area, and then insert underlines for readability. You also realize the October worksheet needs similar formatting for the descriptions for each section.

a. Indent and bold the word *Totals* in **cells A11** and **A23** on the grouped worksheets.

b. Apply **Accounting Number Format** with zero decimal places to the Orchestra Front revenue and the Total revenue row.

c. Apply **Comma Style** with zero decimal places to the remaining seating revenue rows.

d. Apply a regular underline to the Balcony Level 2 revenue and apply a **Double Underline** for the total revenue values on Total row.

e. Use Format Painter to copy the formats from **cells A2:H2** to **cells A14:H14**.

f. Ungroup the worksheets. Look at the October worksheet to see that the titles above the column headings lack formatting. Fill the formats of **cells C1** and **C13** from the Week 4 worksheet to the October worksheet *without* copying the content. Save the workbook.

Create Hyperlinks

Because several accountants will review the workbook, you want to add hyperlinks from the documentation worksheet to the other worksheets.

a. Select the **Documentation worksheet**, enter your name and the current date in the respective cells, and then create a hyperlink from the Week 1 label to the Week 1 worksheet.

b. Create the hyperlinks from the Documentation worksheet to the other worksheets.

c. Select the **Week 1 worksheet**. Create a hyperlink in **cell A1** back to the Documentation worksheet. Group the weekly and October worksheets and use the Fill Across Worksheets command to copy the link and formatting for the other weekly and summary worksheets.

d. Test all hyperlinks and make any necessary corrections. Save the workbook.

Create 3-D Formulas

You need to consolidate data from the weekly worksheets to the October worksheet to see the percentage of total daily sales and the total revenue by day/seat type.

a. Insert a 3-D formula that calculates the total Sunday Orchestra Front revenue for all four weeks in **cell C15** in the October worksheet. Copy the formula for the remaining seating types, weekdays, total row, and total column.

b. Use the Week 4 worksheet to fill the revenue number formatting to the October revenue.

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Managing Your Personal Space

SOFT SKILLS CASE S

You work for E&L Financial, a large financial management company that specializes in department store management. You have been assigned as the account manager of Dickson's department store. As part of your task, you will review the past year's earnings. Moving forward you will continue to manage their earnings, therefore you have decided to create a custom workspace to help manage the data.

Open the file *e09b3Workspace*. Save the file as **e09b4Workspace_LastFirst**. Click New Window in the View tab three times to open three additional copies of the document. Arrange the four workbooks in tiled view. Make the Qtr2 worksheet active in the worksheet located in the top-right corner. Make the Qtr3 worksheet active in the bottom-left corner and the Qtr4 worksheet active in the bottom-right corner. Save the layout as a workspace with the name **e09b4Workspace_LastFirst**. Close the workbook and submit it based on your instructor's directions.

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