Slice, Dice and Cook Your Data with Microsoft Excel

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Lists

The data should be arranged in a list or table in order for Excel to work efficiently. Same type of data (e.g., color – rare, medium, well done or size – tall, grande, venti) should be entered in the same column. All the data for one item (e.g., one employee, one inventory item, one menu entrée) should be entered into one row. Each column of data is called a field. Each row is a record. There should be no blank rows and blank columns in a list. The top row of the list should have headers describing the contents of each column (e.g., color, size, etc.). You can have more than one list in a worksheet.

Open the spreadsheet name Dessert List and utilize List, Sort, and Subtotal commands. Also try the spreadsheet named Periodic.

Statistics

Basic arithmetic operations ( + - * / ) are the most common formulas entered in spreadsheets. When calculating a range of values it is more efficient to use statistical functions and copy the formulas to cells for that need similar calculations. For example, =FunctionName(range, other arguments) where FunctionName can be

<table>
<thead>
<tr>
<th>FunctionName</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>=Sum</td>
<td>adds a range of values</td>
</tr>
<tr>
<td>=Average</td>
<td>averages a range of values</td>
</tr>
<tr>
<td>=Count</td>
<td>counts the number of cells in a range with values</td>
</tr>
<tr>
<td>=Counta</td>
<td>counts the number of cells in a range with values and text</td>
</tr>
<tr>
<td>=Max</td>
<td>displays the largest value in a range</td>
</tr>
<tr>
<td>=Min</td>
<td>displays the smallest value in a range</td>
</tr>
</tbody>
</table>

Open the spreadsheet name Database Functions and duplicate the statistical functions.

Count

What can be simpler than counting? Well, if you need to count hundreds or thousands of items by different categories then you need to let Excel help you count. The =count and =counta functions are good for counting grand counts (everything in a range). Use the =countif and =countifa functions to count only certain items within a range.

Open the spreadsheet named Dessert CountIf and duplicate the counting calculations.

Database Statistics

We want to do more than count records meeting a criterion. Let’s add, average, pick the largest and pick the smallest amounts for various criteria.

Open the spreadsheet named Database Functions and duplicate the calculations.

Menu

- Excel Lists
- Sort
- AutoFilter
- Advance Filters
- Statistics
- Count
- Database Statistics
- PivotTable
- PivotChart

- Miscellaneous Shortcuts
  - Today’s Special: Online Applications
PivotTable & PivotChart

Get all the statistics we have thus seen and more in one report with an Excel PivotTable. You can control how much or little to show. Then convert your PivotTable into a PivotChart for a more graphic presentation.

Open the spreadsheet named First PivotTable to see a simple PivotTable and its related data. Open the spreadsheet named PivotTable Procedures to see the steps to create a PivotTable. Open the spreadsheet named RosterPivotTable and create a PivotTable from the data. Then open Dessert PivotTable to see a PivotTable and PivotChart.

Miscellaneous Shortcuts 1

• Fast totaling and counting
  – Drag over target cells or click on a cell then control-click on the next cell to add
  – See the right side of the status line for a total
  – Change calculation by right-clicking on status line then clicking on desired calculation

Miscellaneous Shortcut 2

• Fast totaling columns and rows
  – Move the cell cursor to the bottom of a column or end of a row of numbers
  – Alt+= two times

Miscellaneous Shortcut 3

• Fast cell cursor movement
  – Ctrl+arrow key

• Fast cell selection
  – Ctrl+Shift+arrow key

• Move between worksheets
  – Ctrl+PgUp & PgDn

Miscellaneous Shortcut 4

• Adjust column widths
  – Adjust all to AutoFit
    • Select all
    • Double-click on borderline between any column letters
  – Adjust columns to be same widths
    • Select desired columns (drag over columns letters)
    • Drag left or right on the borderline between any column letters of the columns to adjust

Miscellaneous Shortcut 5

• Adjust column widths
  – Select all
  – Double-click on borderline between any column letters
  – Adjust columns to be same widths
  – Select desired columns (drag over columns letters)
  – Drag left or right on the borderline between any column letters of the columns to adjust

Other Shortcuts

• Comma, 2 decimals Ctrl+Shift+1
• General Format Ctrl+Shift+~
• Insert Date Ctrl+;
• Insert Time Ctrl+Shift+;
• Select All Ctrl+A
• Zoom in/out Ctrl+scroll wheel
• Copy Worksheet Ctrl+drag on tab
• Absolute/Relative mode F4
Today’s Special

• What are **Online Applications**?
  – Free web-based service.
  – Functions similar to MS Office.
  – Files can be saved online or offline.
  – Online collaboration.
• Considerations
  – Primary or supplemental use
  – Share privately or publicly
  – View only or allow editing

Online Applications – continued

• Issues
  – Requires online access
  – Security
  – Speed, lag
  – Quirky
  – Compatibility
  – Support
  – Viability of service provider

Sample Online Applications

• Google Docs and Spreadsheets
  – [http://docs.google.com/](http://docs.google.com/)
• ThinkFree
  – [http://www.thinkfree.com](http://www.thinkfree.com)
• Zoho Office Suite
• EditGrid (click on *Try Now* link)

Index of Files

• [Database Functions.XLS](#)
• [Dessert CountIf.XLS](#)
• [Dessert List.XLS](#)
• [Dessert PivotTable.XLS](#)
• [Filtering.XLS](#)
• [First PivotTable.xls](#)
• [PivotTable Procedures.xls](#)
• [Roster PivotTable.xls](#)
• [Statistics.xls](#)

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