

Hard Excel Data Analyst Interview Questions

49. What is conditional formatting?

Conditional formatting is a method that allows us to identify the characteristics (conditions) of a cell's contents that are of interest to us, and superimpose highlighting of cells or ranges that meet that criteria. When a cell is updated with new information, the conditional formatting will recognize and update itself. For instance, if you wanted to apply a green highlight to any cell that contains the letter Z, and you update Randolph to Ziggy, the conditional format would automatically apply.

50. What is the limitation of the VLOOKUP function?

The VLOOKUP function can only move in one direction, from left to right. Therefore, the information you wish to seek out must be located in a column to the right of the lookup value's location. In newer versions of Excel, a successor to VLOOKUP has been added, called XLOOKUP. This new function works in any direction and defaults to exact matches rather than approximate. At some point in the future, XLOOKUP will completely replace VLOOKUP, but this will not happen until the majority of users have moved away from using older versions of Excel.

51. Does VLOOKUP use case sensitive values?

VLOOKUP is not case-sensitive, and will always return the first value of the match irrespective of the case. In other words, the name Apgar and the acronym APGAR would be viewed as the same by VLOOKUP. It is, however, possible to manipulate VLOOKUP into returning case-sensitive values by using a helper column, or by sorting your data in an ascending or descending order so that the value you want is always the first to be encountered by VLOOKUP.

52. How do the INDEX and MATCH functions work in Excel?

You can use two MATCH functions within an INDEX formula to specify a cell reference and return the value of that cell. The dynamic formula will return the corresponding data of any two MATCH values you input. For example, if you have a table detailing the price per unit and the number of units sold for a variety of products, you can use the match index function to return a specific piece of information about a specific product.

53. What is the difference between COUNT, COUNTA, COUNTBLANK and COUNTIF functions?

COUNT: This function counts how many cells within a specified range contain numerical data. It will ignore (not count) any cells that are blank or contain text or symbols only.

COUNTA: This function counts how many cells within a specified range contain data of any type (the cell is filled). It will count all cells that are not blank.

COUNTBLANK: This function will count the number of blank cells within the designated range.

COUNTIF: This function will count only the cells whose value meets a certain condition specified by the user.

54. What is Data Validation?

Data Validation limits the type of values that can be inserted into a single cell or a set of cells by a user. It again works to limit user input errors and keep the data inputs clean.

55. How can you measure an Excel percentage?

- Select the destination cell to display the percentage
- Then, type a "=" sign.
- Type in your reference, say A1/ A2, then hit the Enter key.
- Click on the Home tab, select the % symbol from the numbers group. This converts the value into a percentage format.

56. Can you build Excel feature shortcuts?

Yes. It is possible to configure the 'Easy Access Toolbar' above the home button to display your most commonly used shortcuts.

57. What are the alignments for Left, Right, Fill and Distributed?

- The left/right alignment aligns the cell's contents to the left and right.
- Fill the cell with the same text repetitively, as the name suggests.
- Distributed spreads the text over the cell width.

58. How do you use Advanced Filters?

You can extract a unique list of items using Advanced Filters, or you can also extract a particular item from various worksheets. It may be assumed that the Advanced Filter is an advanced Auto Filter variant.

59. What is an Excel Array formula?

With an array, a user can perform multiple calculations on multiple items using just one formula. For instance, if you want to multiply A1 by B1, A2 by B2, A3 by B3, and so on, instead of writing a formula for each calculation, you can write `=A1:A10*B1:B10` in cell C1, and the results for each calculation will spill down the C column.

This is called a multi-cell array, as the results will be stored in multiple cells. You can also create a single-cell array if, for example, you wanted to sum the entirety of the values calculated by the above array. This would look like: `=SUM(A1:A10*B1:B10)` and return a single value calculated by adding the results of all ten multiplications together.

60. How do you extract the first name from a full name in Excel?

The FIND function will return the numerical location of this target (with the first character of the text being 1). The LEFT function can then extract the number of characters specified by the FIND function from the beginning of the text (i.e the left).

However, the value returned by FIND will include the space itself, so we need to subtract 1 from the value in order to find the actual ending point of the first name. The formula would look like this: `=LEFT(A1,FIND(" ",A1)-1)`.

A second method would separate the first names and last names and deposit them into separate new columns, using the Text to Columns feature found in the Data tab. We covered this earlier under how to split information in a column. The Text to Columns dialogue box will allow you to select the delimiter separating each field (e.g space) and show you a preview of the result. The last step will allow you to choose where you want the result to be displayed.

61. What is the difference between a function and subroutine in VBA?

It is the duty of a function to return the value of the mission it performs. Subroutines, meanwhile, do not return the importance of the assignment they perform. Functions are used as formulas, as they are in spreadsheets. Subroutines are not used as formulas directly inside spreadsheets.

62. What's the distinction in VBA between thisworkbook and activeworkbook?

The name of the workbook from which the code is running is provided by ThisWorkbook. ActiveWorkbook is as the name implies, the workbook that is actually active in the numerous open workbooks.

63. What is the easy way to go back to a specific area of a worksheet?

Using the name box is a fast way to return to a particular section of the worksheet. To return to a particular area of a worksheet, you can type the cell address or name of the range in the name box.

64. How do you handle circular references in Excel?

Circular references occur when a formula in a cell refers back to itself either directly or indirectly. Excel will display a warning message if it detects a circular reference, because it can cause the program to calculate endlessly while never generating a result. It is therefore critical to address the circular references immediately to prevent them from potentially interfering with other formulas. To identify and correct circular references:

- Go to the "Formulas" tab.
- In the "Formula Auditing" group, click on "Error Checking."
- Choose "Circular References" to see where they exist.
- Check the formulas in the identified cells and adjust them to eliminate the circularity.

