

# Excel Mock Interview Report

**Candidate:** Arpan Chatterjee  
**Topic:** Excel Interview  
**Date:** 2025-09-14 11:24 UTC

Q #	Score (0-10)
1	8
2	9
3	8
4	0
5	9
6	0
7	2
8	8
9	0
10	0
11	0
12	8
13	9
14	0
15	0
16	0
17	0
18	8
19	0
20	2

**Average Score:** 3.55 / 10

## Detailed Responses

**Q1:** What is the difference between using the \$ symbol in an Excel formula, such as \$A\$1 versus A1, and how would you use it to reference a cell in a formula that you want to copy down a column?

**Answer:** The dollar sign (\$) in an Excel formula creates an absolute reference, which prevents a cell reference from changing when the formula is copied. Without the dollar sign, the reference is relative, meaning it adjusts based on its new position. **Relative Reference (A1)** A relative reference adjusts automatically when you copy a formula to another cell. This is the default behavior in Excel and is useful when you want to repeat a calculation across multiple rows or columns. For example, if you have a formula in cell C2 that says =A2+B2, and you copy it down to cell C3, Excel will automatically change the formula to =A3+B3. The references are "relative" to the cell's new position. **Absolute Reference (A1)** An absolute reference, created by using the \$ symbol before both the column letter and row number (e.g., \$A\$1), locks the reference to that specific cell. When you copy the formula, the reference to \$A\$1 will not change. You would use an absolute reference when a formula needs to refer to a single cell that contains a constant value, such as a tax rate or a conversion factor. **Example:** Imagine you have a list of product prices in column A and a single tax rate (e.g., 8.5%) in cell B1. To calculate the tax for each product, your formula in cell C2 should be =A2\*\$B\$1. A2 is a relative reference. As you copy the formula down, it will change to A3, A4, etc., correctly referencing the next product's price. B1 is an absolute reference. It will remain \$B\$1 for

every row, ensuring that each product's price is multiplied by the same tax rate. If you were to use `=A2*B1` instead, when you copy it down, the formula in cell C3 would become `=A3*B2`. This would incorrectly try to multiply the price by the empty cell B2, resulting in an error.

**Score:** 8

**Feedback:** The answer clearly explains the difference between absolute and relative references in Excel formulas, but could be improved with more specific examples of how to apply this knowledge in practice.

**Q2:** How would you use a combination of absolute and relative references in a formula to create a dynamic sum range that automatically expands or contracts as data is added or removed from a table, and what are some potential pitfalls to watch out for when using this approach?

**Answer:** You can create a dynamic sum range that automatically adjusts to data additions or removals by using a combination of relative and absolute references within a defined name and a lookup or offset function. This approach is superior to using static ranges because it eliminates the need to manually update formulas, which is a common source of errors. Using a Dynamic Named Range with OFFSET A common and powerful method involves creating a dynamic named range in the Name Manager using the OFFSET and COUNTA functions. Open Name Manager: Go to the Formulas tab and click Name Manager. Create a New Name: Click New and give your range a descriptive name (e.g., DynamicSales). Enter the Formula: In the "Refers to" box, enter a formula like this: `=OFFSET(Sheet1!$A$2, 0, 0, COUNTA(Sheet1!$A:$A)-1, 1)` Let's break down this formula's use of references: `OFFSET(Sheet1!$A$2, ...)`: The starting point of the range is a static, absolute reference (`$A$2`). This ensures the range always starts at the same cell, regardless of where the formula is used. `COUNTA(Sheet1!$A:$A)`: This part counts all the non-empty cells in the entire column A. This is a relative reference to the column, which ensures it's always looking at the entire column to get an accurate count of rows. We then subtract 1 to account for the header row. `... -1, 1`: The result of COUNTA determines the height of the dynamic range. 1 specifies the width. Now, you can use `=SUM(DynamicSales)` in a cell. When you add new data to the column, the COUNTA function updates, and your sum automatically includes the new values without any changes to the formula.

**Score:** 9

**Feedback:** The answer provides a good explanation of how to use a combination of absolute and relative references to create a dynamic sum range, but could benefit from more discussion of potential pitfalls and how to mitigate them.

**Q3:** How would you modify the dynamic named range approach to handle a scenario where the data table has multiple columns with varying data types, and you need to create separate dynamic sum ranges for each column, while also accounting for potential blank rows or columns that may be inserted or deleted, and ensuring that the formulas remain robust and efficient?

**Answer:** To modify the dynamic named range approach for a multi-column data table with varying data types, you'd use a more robust version of the OFFSET and COUNTA functions to handle potential blank cells and multiple columns. This ensures your ranges are always accurate and efficient.

**Score:** 8

**Feedback:** The answer offers a reasonable approach to modifying the dynamic named range for a multi-column data table, but lacks detail on how to handle blank rows or columns and ensure formula robustness.

**Q4:** How would you extend this dynamic named range approach to also accommodate a pivot table that summarizes the data from the multi-column table, where the pivot table's structure and fields may change over time, and you need to ensure that the dynamic sum ranges and the pivot table remain synchronized and update correctly when the underlying data changes, while also handling potential errors and inconsistencies in the data that could affect the pivot table's calculations?

**Answer:** i dont know

**Score:** 0

**Feedback:** The answer does not provide any useful information or solution to the problem, and simply states a lack of knowledge.

**Q5:** Suppose you have successfully implemented the dynamic named range and pivot table approach, but now you need to distribute this workbook to multiple users who will be working with different subsets of the data, and you want to ensure that each user's pivot table only shows the data relevant to them, without

having to create separate workbooks or manually filter the data for each user, how would you design a solution to achieve this in Excel?

**Answer:** To design a solution that ensures each user's PivotTable only shows their relevant data without manual filtering or separate workbooks, you'd use a combination of Power Query, Data Model filters, and dynamic user authentication. The most robust and scalable method for this scenario involves using Power BI or an enterprise solution, but a simplified, local Excel-based approach can be built with these components. 1. Identify and Map Users First, create a lookup table that maps each user to their specific data subset. For example, if users are associated with a region, create a simple table with two columns: UserID and Region. This table will be the key to filtering the data. 2. Implement Data Filtering with Power Query Instead of creating a dynamic named range in a worksheet, you would use Power Query to filter the data as it's being imported. This is much more efficient and secure because the filtered data is loaded directly into the Data Model. Create a user parameter: In Power Query, you can create a dynamic parameter that is populated from a specific cell in the workbook. This cell would contain the current user's ID or a unique identifier. Filter the main data source: When you load the main data table, apply a filter to the Region column based on the value of the user parameter. For example, `Table.SelectRows(Source, each [Region] = UserParameter`

**Score:** 9

**Feedback:** The answer proposes a viable solution using Power Query, Data Model filters, and dynamic user authentication, but could be enhanced with more specifics on implementation and potential challenges.

**Q6:** Assuming the dynamic filtering solution using Power Query and user authentication has been successfully implemented, a new requirement arises where the organization wants to introduce a role-based access control system, allowing certain users not only to view their respective data subsets but also to edit specific fields within their assigned data, while ensuring that these edits are audited and do not affect the original data source, how would you enhance the existing Excel solution to incorporate this role-based editing capability with auditing, considering the constraints of using Excel as the primary

**Answer:** No Answer

**Score:** 0

**Feedback:** The answer is blank, which indicates a lack of understanding or preparation for the question about implementing role-based editing capability with auditing in Excel.

**Q7:** Given the enhanced solution with role-based editing and auditing, how would you design an Excel dashboard to provide administrators with a clear overview of user activity, including the types of edits made, the frequency of edits, and the users making these edits, utilizing built-in Excel tools such as PivotTables and conditional formatting?

**Answer:** iam still learning about this

**Score:** 2

**Feedback:** The answer shows a recognition of the need for learning but does not provide any insight or approach to designing an Excel dashboard for administrators to overview user activity.

**Q8:** Suppose you have a large dataset of user activity, including edit types, timestamps, and user IDs, and you want to identify trends and patterns in user behavior over time, how would you use Excel's data analysis tools, such as moving averages or regression analysis, to forecast future edit activity and detect potential anomalies in the data?

**Answer:** To analyze and forecast user edit activity, you'd use Excel's built-in data analysis tools to identify trends, create a forecast, and spot anomalies. 1. Identify Trends with a Moving Average A moving average is a simple and effective way to smooth out short-term fluctuations in your data and highlight longer-term trends. You'd use it to see if user activity is generally increasing, decreasing, or staying flat. Calculate the moving average: In a new column, use the AVERAGE function to calculate the average of the last n data points (e.g., the last 7 days of activity). For example, a formula for a 7-day moving average would be `=AVERAGE(B2:B8)`. Drag the formula down: Use the AutoFill feature to apply the formula to the entire dataset. Visualize the trend: Create a line chart with both the raw data and the moving average. The moving average line will be much smoother and will clearly show the overall trend in user activity. 2. Forecast Future Activity with Regression Analysis Regression analysis helps you model the relationship between variables and create a forecast. You'd use it to predict future user activity based on the historical trend. Enable the Analysis ToolPak: Go to File > Options > Add-ins, select Excel Add-ins, and click Go. Check the

box for Analysis ToolPak and click OK. Run the Regression tool: Go to the Data tab and click Data Analysis. Select Regression and click OK.

**Score:** 8

**Feedback:** The answer demonstrates a good understanding of using Excel's data analysis tools like moving averages for trend identification and forecasting future edit activity, but could be improved with more specifics on anomaly detection.

**Q9:** Suppose you have successfully forecasted future edit activity and detected potential anomalies in the data using moving averages and regression analysis, and now you want to segment your users based on their editing behavior, such as frequency, volume, and type of edits, to identify high-value users, casual users, and inactive users, how would you use Excel's advanced data analysis tools, such as clustering analysis or pivot tables, to categorize users into distinct groups and create targeted strategies to engage and retain each segment, while

**Answer:** i dont know

**Score:** 0

**Feedback:** The answer indicates a lack of knowledge or understanding of how to use Excel's advanced data analysis tools for user segmentation based on editing behavior.

**Q10:** Assuming you have a large dataset of user editing behavior and you want to create a scoring system to assign a loyalty score to each user based on their activity, how would you use Excel's functions, such as INDEX-MATCH or VLOOKUP, and possibly array formulas, to create a dynamic scoring system that takes into account multiple criteria, such as edit frequency, volume, and recency, and then use this scoring system to prioritize user engagement efforts?

**Answer:** No Answer

**Score:** 0

**Feedback:** The answer is blank, showing no attempt to address how to create a dynamic scoring system in Excel for assigning loyalty scores to users based on their editing activity.

**Q11:** Suppose you have a list of users with their corresponding loyalty scores, and you want to categorize them into different tiers, such as bronze, silver, and gold, based on their scores, how would you use Excel's IF function or other conditional functions to create a formula that automatically assigns a tier to each user based on their loyalty score?

**Answer:** No Answer

**Score:** 0

**Feedback:** The candidate did not provide an answer to the question, which is a crucial aspect of demonstrating their knowledge of using Excel's IF function or other conditional functions to categorize users into different tiers.

**Q12:** Now that we have a list of users with their corresponding tiers, how would you use Excel functions to count the number of users in each tier, such as the total number of bronze, silver, and gold users, and display these counts in a summary table.

**Answer:** To count the number of users in each tier, you'd use the COUNTIF or COUNTIFS function. These functions allow you to count cells in a range that meet a specific criterion, which is perfect for this task. The best way to display the results is in a separate summary table. Using COUNTIF for a Single Criterion If your user tiers are in a single column (e.g., column B), you can use the COUNTIF function to count the number of users in each tier. Set up the summary table: In a new area of your worksheet, create a summary table. In one column, list your tiers ("Bronze," "Silver," "Gold"). In the adjacent column, you'll place your COUNTIF formulas. Write the COUNTIF formula: For each tier, write a formula that references the list of users and a cell with the tier name. For "Bronze" users, the formula would be: =COUNTIF(B:B, "Bronze") For "Silver" users: =COUNTIF(B:B, "Silver") For "Gold" users: =COUNTIF(B:B, "Gold") This approach is simple and effective for counting users based on one condition.

**Score:** 8

**Feedback:** The candidate provided a correct answer by suggesting the use of COUNTIF or COUNTIFS function to count the number of users in each tier, but could have elaborated more on how to create a summary table to display these counts.

**Q13:** Now that we have the counts of users in each tier, suppose we want to analyze the distribution of these users across different regions, and we have an additional column in our data that specifies the region each user belongs to. How would you use Excel functions, such as PivotTables or array formulas, to create a cross-tabulation table that shows the count of users in each tier by region, allowing us to easily identify trends or patterns in user distribution across different regions and tiers?

**Answer:** To analyze the distribution of users across different regions and tiers, you can use a PivotTable or an array formula with SUMPRODUCT or COUNTIFS to create a cross-tabulation table. A PivotTable is the easiest and most dynamic solution, while an array formula is a static alternative. Using a PivotTable A PivotTable is the ideal tool for this kind of cross-tabulation. It's a drag-and-drop tool that automatically summarizes and reorganizes data without you having to write complex formulas. Prepare your data: Ensure your data has clear headers for User ID, Tier, and Region. Insert PivotTable: Click anywhere in your data, go to the Insert tab, and select PivotTable. Place fields: Drag the "Region" field to the Rows area. This will list each region down the side. Drag the "Tier" field to the Columns area. This will create a column for each tier (Bronze, Silver, Gold, etc.). Drag the "User ID" field to the Values area. Excel will automatically change the aggregation to Count of User ID, giving you the number of users at the intersection of each region and tier. This process creates a clear, interactive table that shows the exact number of users in each tier for every region. You can then easily see trends, such as which regions have the most Gold users or which have the most Bronze users. Using an Array Formula (SUMPRODUCT) Alternatively, you can create a static cross-tabulation table using an array formula with SUMPRODUCT. This is a more complex method but can be useful if you can't or don't want to use a PivotTable. The SUMPRODUCT function can perform a conditional count by multiplying two arrays of TRUE and FALSE values. Formula Structure:   
=SUMPRODUCT((Tier\_Range=Tier\_Criteria)\*(Region\_Range=Region\_Criteria)) Tier\_Range: The column containing the user tiers. Tier\_Criteria: The specific tier you want to count (e.g., a cell with "Bronze"). Region\_Range: The column containing the regions. Region\_Criteria: The specific region you want to count (e.g., a cell with "North"). You would then enter this formula for each combination of tier and region in your summary table. This approach is powerful but requires manual entry for each cell and isn't as dynamic as a PivotTable. Why a PivotTable is superior: It's much faster to set up and provides built-in interactivity like filtering, sorting, and subtotals. A PivotTable also automatically updates its structure when new regions or tiers are added to your data, which a SUMPRODUCT formula does not.

**Score:** 9

**Feedback:** The candidate provided a comprehensive answer by suggesting the use of PivotTables or array formulas with SUMPRODUCT or COUNTIFS to create a cross-tabulation table, and explained the benefits of using a PivotTable as a dynamic solution.

**Q14:** Suppose the organization decides to implement a points system where each user earns a certain number of points based on their tier and activity level, and these points can be redeemed for rewards, with the goal of incentivizing users to move up the tiers and increase their engagement. The points allocation is as follows: Bronze users earn 1 point for every dollar spent, Silver users earn 1.5 points, and Gold users earn 2 points. Given a new column in the data that specifies the total amount

**Answer:** i dont know

**Score:** 0

**Feedback:** The candidate explicitly stated they did not know the answer, which indicates a lack of knowledge or experience with implementing a points system in Excel.

**Q15:** Suppose the organization wants to analyze the effectiveness of the points system in driving user engagement, and they've added a new column to the data that tracks the number of points each user has redeemed, what formula would you use to calculate the total revenue generated by users who have redeemed points, assuming that each point redeemed is equivalent to a dollar spent, and the data is organized in a table with columns for user ID, tier, total amount spent, and points redeemed?

**Answer:** this is a business implementation iam still learning about it

**Score:** 0

**Feedback:** The candidate stated that calculating the total revenue generated by users who have redeemed points is a business implementation they are still learning about, which suggests they do not have the necessary skills or knowledge to answer the question.

**Q16:** Assuming the organization wants to identify the top 10 users who have generated the most revenue through points redemption, and they want to display this information in a separate table, how would you use Excel formulas and functions to create a dynamic table that automatically updates the list of top users whenever the data is refreshed or changed.

**Answer:** No Answer

**Score:** 0

**Feedback:** The candidate did not provide an answer to the question, failing to demonstrate their ability to create a dynamic table that automatically updates the list of top users.

**Q17:** Suppose you have a list of the top 10 users in the dynamic table you just created, and you want to add a column that calculates the total revenue generated by each user as a percentage of the total revenue generated by all users, how would you use Excel formulas to achieve this calculation?

**Answer:** i am not able to deduce the problem statement

**Score:** 0

**Feedback:** The candidate stated they were unable to understand the problem statement, indicating a lack of clarity or comprehension of the task at hand.

**Q18:** Assuming you have successfully calculated the percentage of total revenue for each user, how would you then use Excel formulas to identify and highlight the top 3 users who have generated the highest percentage of total revenue, and also display their corresponding percentages in a separate cell or range.

**Answer:** To identify and highlight the top 3 users by percentage of total revenue, you can use a combination of Conditional Formatting for the highlighting and the LARGE function to extract the values. Highlight the Top 3 Users ■■■ The easiest way to highlight the top 3 is with a built-in Conditional Formatting rule. Select the data: Select the range of cells containing the percentages you want to highlight. Access Conditional Formatting: Go to the Home tab, click Conditional Formatting, then select Top/Bottom Rules. Choose the rule: From the submenu, select Top 10 Items.... Change the value: In the dialog box that appears, change the number from 10 to 3. Choose your desired formatting (e.g., green fill) and click OK. This will automatically highlight the top 3 percentages in your selected range, and it will update dynamically if your data changes. Display the Top 3 Percentages in a Separate Range To display the top 3 percentages in a separate cell or range, you'll use the LARGE function. Use the LARGE function: In a new cell, use the LARGE function with k=1 to find the highest percentage. =LARGE(range, 1) where range is the column with the percentages. Find the 2nd and 3rd largest: In the cells below, simply change the k value to 2 and 3. =LARGE(range, 2) =LARGE(range, 3) Identify the Users Associated with the Top Percentages To display the user names corresponding to the top percentages, you can combine the LARGE function with an INDEX/MATCH formula. Find the percentage: In one cell, use =LARGE(percentage\_range, 1) to find the top percentage. Find the user name: In a separate cell, use the following INDEX/MATCH formula. =INDEX(user\_range, MATCH(LARGE(percentage\_range, 1), percentage\_range, 0)) This formula uses LARGE to find the highest percentage, then MATCH finds the row number of that percentage, and finally, INDEX returns the corresponding user name from the user\_range. You would then repeat this for k=2 and k=3 to get the other top users.

**Score:** 8

**Feedback:** The candidate provided a partially correct answer, suggesting the use of Conditional Formatting and the LARGE function to identify and highlight the top 3 users, but did not fully address the question.

**Q19:** Assuming you have now identified and highlighted the top 3 users by percentage of total revenue, and have also extracted their corresponding percentages and user names, how would you use Excel formulas and functions, such as PivotTables, or array formulas, to analyze the revenue trends of these top 3 users over time, and display the results in a dynamic and interactive dashboard, allowing you to easily switch between different time periods, such as monthly, quarterly, or yearly, and also visualize the trends using charts and

**Answer:** No Answer

**Score:** 0

**Feedback:** The candidate did not provide an answer to the question, failing to demonstrate their ability to analyze revenue trends using Excel formulas and functions.

**Q20:** Now that you have a dynamic dashboard to analyze the revenue trends of the top 3 users, how would you add a simple metric to display the total revenue contributed by these top 3 users as a percentage of the overall total revenue, and have this metric update automatically whenever you switch between different time periods, such as monthly, quarterly, or yearly.

**Answer:** iam still learning

**Score:** 2

**Feedback:** The candidate acknowledged they were still learning, indicating a lack of experience or knowledge in adding a simple metric to display the total revenue contributed by the top 3 users as a percentage of the overall total revenue.