

# How can I use Excel to randomly select cells that meet a specific criteria?

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## RECOMMENDED CITATION

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Using Excel, you can easily and efficiently select cells at random that meet a specific criteria. This can be done by using the built-in 'RAND' and 'IF' functions in Excel. First, you would use the 'IF' function to create a logical test that checks if the cells meet the desired criteria. Then, use the 'RAND' function to generate a random number for each cell. By sorting the cells based on the random numbers, you can select a group of cells that meet the criteria at random. This method allows for a quick and unbiased selection of cells, making it a useful tool for various data analysis and decision-making tasks.

## **Excel: Randomly Select Cells Based on Criteria**

**Often you may want to randomly select a cell based on specific criteria in Excel.**

**This tutorial provides two examples of how to do so using the following dataset in Excel:**

	A	B	C	D	E	F
1	<b>Player</b>	<b>Team</b>	<b>Position</b>	<b>Points</b>		
2	Luka	Mavs	Guard	15		
3	Steph	Warriors	Forward	20		
4	Reggie	Mavs	Guard	22		
5	Davis	Mavs	Forward	25		
6	Jimmy	Heat	Forward	19		
7	Klay	Warriors	Forward	18		
8	Draymond	Warriors	Guard	14		
9	Tyler	Heat	Forward	29		
10	Jordan	Warriors	Forward	24		
11	Jalen	Mavs	Guard	16		
12	Gary	Warriors	Guard	18		
13	Kevon	Warriors	Guard	20		
14	Spencer	Mavs	Forward	21		
15						
16						
17						
18						
19						
20						
21						
22						
23						

### Example 1: Randomly Select Cell Based on One Criteria

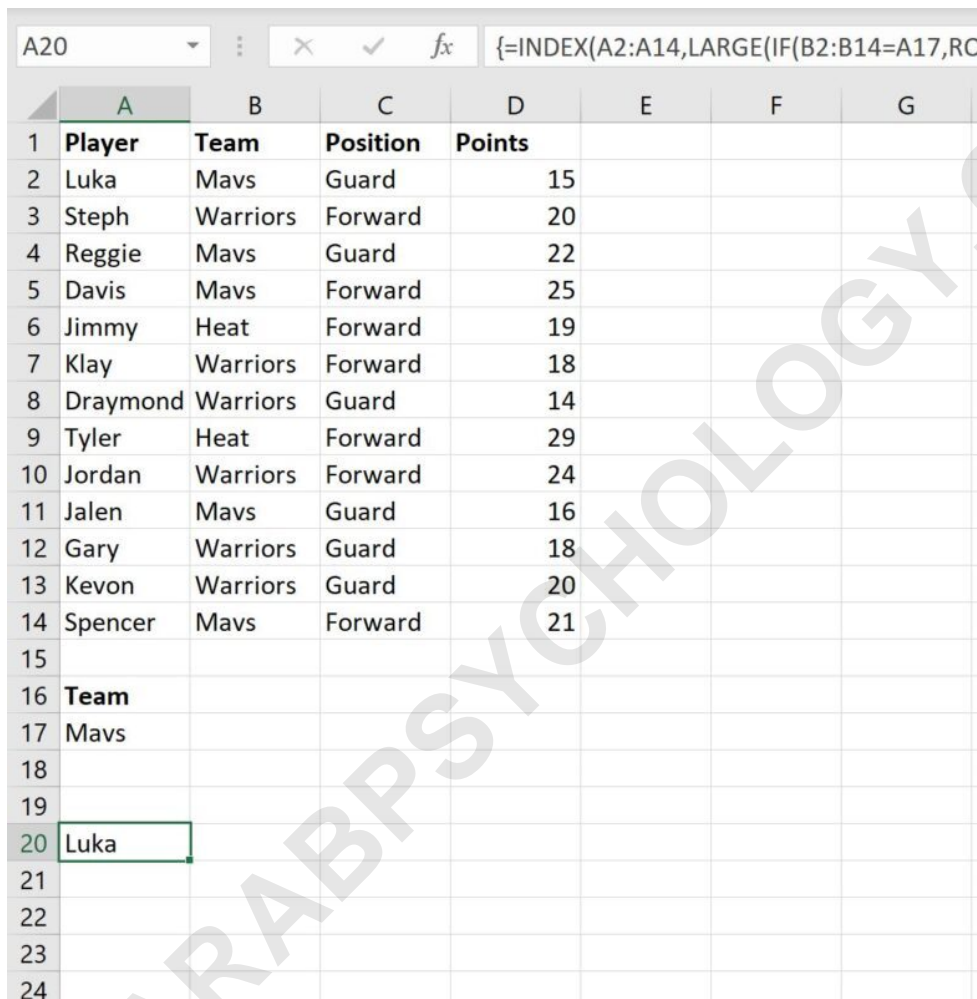
We can use the following formula to randomly select one player who is on the Mavs team:

**=INDEX(A2:A14,LARGE(IF(B2:B14=A17,ROW(B2:B14)-ROW(B2)+1),INT(RAND()\*COUNTIF(B2:B14,A17)+1)))**

This particular formula will randomly select one cell from the range A2:A14 where the corresponding cell in

the range B2:B14 is equal to the value in cell A17.

We can type this formula into cell A20 and then press **Ctrl + Shift + Enter**:



The screenshot shows an Excel spreadsheet with the following data:

	A	B	C	D	E	F	G
1	<b>Player</b>	<b>Team</b>	<b>Position</b>	<b>Points</b>			
2	Luka	Mavs	Guard	15			
3	Steph	Warriors	Forward	20			
4	Reggie	Mavs	Guard	22			
5	Davis	Mavs	Forward	25			
6	Jimmy	Heat	Forward	19			
7	Klay	Warriors	Forward	18			
8	Draymond	Warriors	Guard	14			
9	Tyler	Heat	Forward	29			
10	Jordan	Warriors	Forward	24			
11	Jalen	Mavs	Guard	16			
12	Gary	Warriors	Guard	18			
13	Kevon	Warriors	Guard	20			
14	Spencer	Mavs	Forward	21			
15							
16	<b>Team</b>						
17	Mavs						
18							
19							
20	Luka						
21							
22							
23							
24							

The formula bar for cell A20 shows the formula: `{=INDEX(A2:A14,LARGE(IF(B2:B14=A17,RC`

We can see that the formula randomly selected Luka, who is a player on the Mavs team.

Feel free to double click cell A20 and press Enter to run the formula again.

Each time we run the formula, it's possible that we will get a different player on the Mavs team.

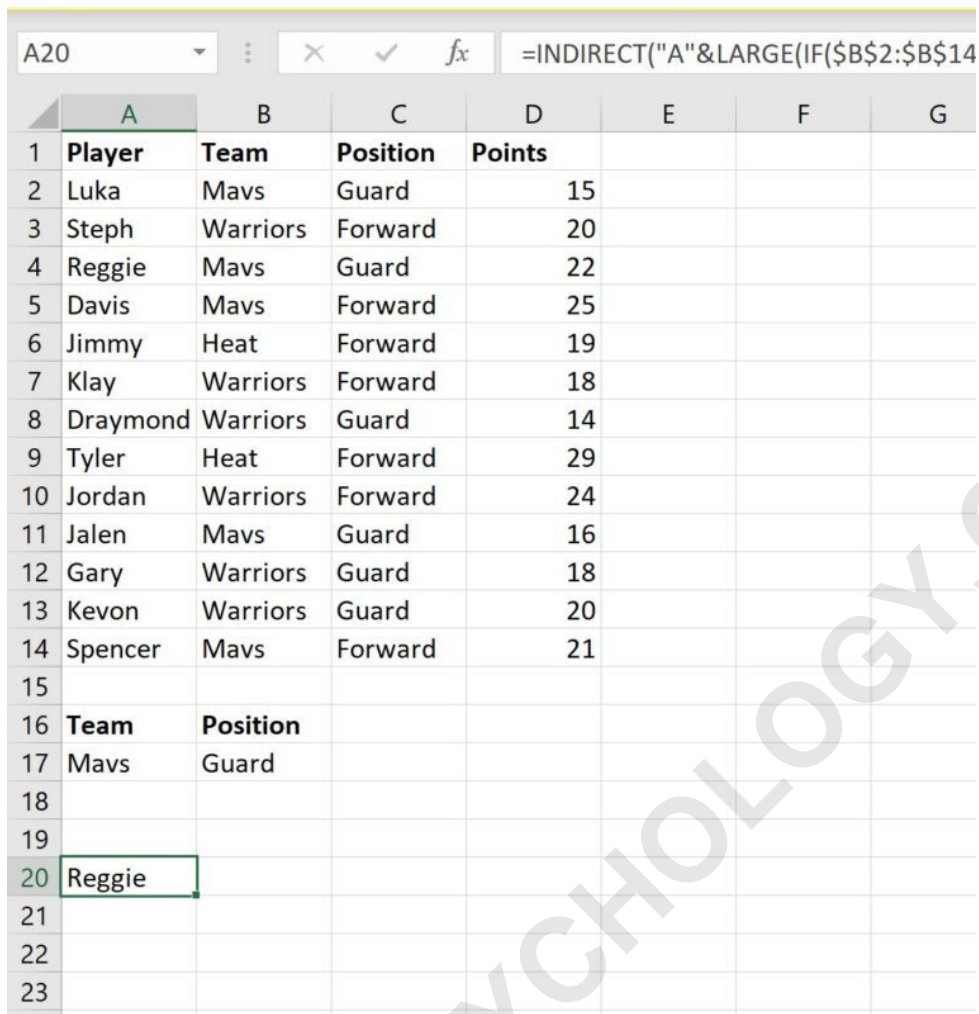
#### Example 2: Randomly Select Cell Based on Multiple Criteria

We can use the following formula to randomly select one player who is on the Mavs team and is a Guard:

```
=INDIRECT("A"&LARGE(IF($B$2:$B$14=$A$17,IF($C$2:$C$14=$B$17,ROW($A$2:$A$14),0),0),  
RANDBETWEEN(1,COUNTIFS(B2:B14,A17,C2:C14,B17))  
)
```

This particular formula will randomly select one cell from the range A2:A14 where the cell in range B2:B14 is equal to the value in cell A17 and the cell in range C2:C14 is equal to the value in cell B17.

We can type this formula into cell A20 and then press Ctrl + Shift + Enter:



The image shows an Excel spreadsheet with the following data:

	A	B	C	D	E	F	G
1	<b>Player</b>	<b>Team</b>	<b>Position</b>	<b>Points</b>			
2	Luka	Mavs	Guard	15			
3	Steph	Warriors	Forward	20			
4	Reggie	Mavs	Guard	22			
5	Davis	Mavs	Forward	25			
6	Jimmy	Heat	Forward	19			
7	Klay	Warriors	Forward	18			
8	Draymond	Warriors	Guard	14			
9	Tyler	Heat	Forward	29			
10	Jordan	Warriors	Forward	24			
11	Jalen	Mavs	Guard	16			
12	Gary	Warriors	Guard	18			
13	Kevon	Warriors	Guard	20			
14	Spencer	Mavs	Forward	21			
15							
16	<b>Team</b>	<b>Position</b>					
17	Mavs	Guard					
18							
19							
20	Reggie						
21							
22							
23							

The formula bar at the top shows the formula: `=INDIRECT("A"&LARGE(IF($B$2:$B$14`

**We can see that the formula randomly selected Reggie, who is a guard on the Mavs team.**

**Feel free to double click cell A20 and press Enter to run the formula again.**

**Each time we run the formula, it's possible that we will get a different guard on the Mavs team.**

## Additional Resources

**The following tutorials explain how to perform other common tasks in Excel:**

**[How to Select a Random Sample in Excel](#)**

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