Problem Xa. Trace through the script and answer the following questions. You can do it!

```
1  [r,A] = size(ca)
2  B = ca(1,:);
3  idx = strcmp(B, 'Swagger');
4  [val, row] = sort(cell2mat(ca(2:end,idx)), 'descend');
5  ca(2:end, :) = ca(row+1, :);
6  C = cell2mat(ca(2:end,strcmp(B, 'subWoofers'))) < 0
7  D = ca
```

```
Below is a sample of what ca may look like. The excel file is
guaranteed to have a 'Swagger' and 'subWoofers' column.


ca =
```

'Name'	'Ability'	'Swagger'	'subWoofers'
'Tobin'	'Sleeping'	5	2
'Katie'	'Playing'	8	0
'RJ'	'Climbing'	10	-5
'Rao'	'Juggling'	7	5

    i.   Assuming that the script is run using Test.xlsx, fill out the values for the following table.

A =		C =	
B =		D =	

    ii. Why must the `cell2mat()` function be included in line 4? (3 points)

    iii. Assume line 5 is replaced with the following line:

```
 ca(2:end, :) = ca(row, :);
```

Will the code error? If the code errors, briefly explain why. If the code doesn't error, explain how the variable `ca` changes.

SOLUTION

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'Rao'	'Juggling'	7	5

    iv. Assuming that the script is run using Test.xlsx, fill out the values for the following table.

A =	4	C =	[true, false false false]
B =	{'Name','Ability', 'Swagger', 'subWoofers'}	D =	

'Name'	'Ability'	'Swagger'	'subWoofers'
'RJ'	'Climbing'	10	-5
'Katie'	'Playing'	8	0
'Rao'	'Juggling'	7	5
'Tobin'	'Sleeping'	5	2

v. Why must the `cell2mat()` function be included in line 4? (3 points)

<mark>You can't use the sort function on cells containing double so you need to convert them into type double using cell2mat. You can however use the sort function on cells containing type char.</mark>

vi. Assume line 5 is replaced with the following line:

```
ca(2:end, :) = ca(row, :);
```

Will the code error? If the code errors, briefly explain why. If the code doesn't error, explain how the variable `ca` changes.

<mark>It errors because it will sort `ca` including the header row.</mark>