

# Exercises on VBA in MS© Word (Table Applications)

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## Instructions

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1. Ensure you have the Developer tab showing in the Ribbon. If you need further guidance for accessing Visual Basic, see the class notes for **Module 7 VBA**
2. Open the document **VBA in Word (Tables)**.
  - You will be doing exercises on the button and VBA code in that document.
3. Do **ALL** 3 exercises which are on the following pages.
  - The exercises are rated according to difficulty.
4. This is GROUP assignment so be sure to collaborate fully with your group members in learning and problem-solving the exercises.
5. Write your answer(s) to the best of your understanding in the space provided for each question (task).

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## Exercise 1 – Test the Table Buttons

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### Instructions

Do the following experiments:

1. Try different combinations of buttons.
2. Write data in Table A and Table B and use the “Show” button.
3. Try the “**Number List**” button on different tables in this document.
4. Try the “**Number List RM**” button when the cursor is in other than the recommended location. Warning – This can break the document. Do this experiment on a copy of the document.
5. Open another document containing some tables. From the document containing the Table Buttons, click on the button with the label: **Show Form**. This will display a form containing several buttons. See if you can get any of the buttons to affect the new document. Note – You may need to click on a document or button twice to make it active or change focus.

In the space below write a brief description of your observations for each of the five “experiments” listed above.

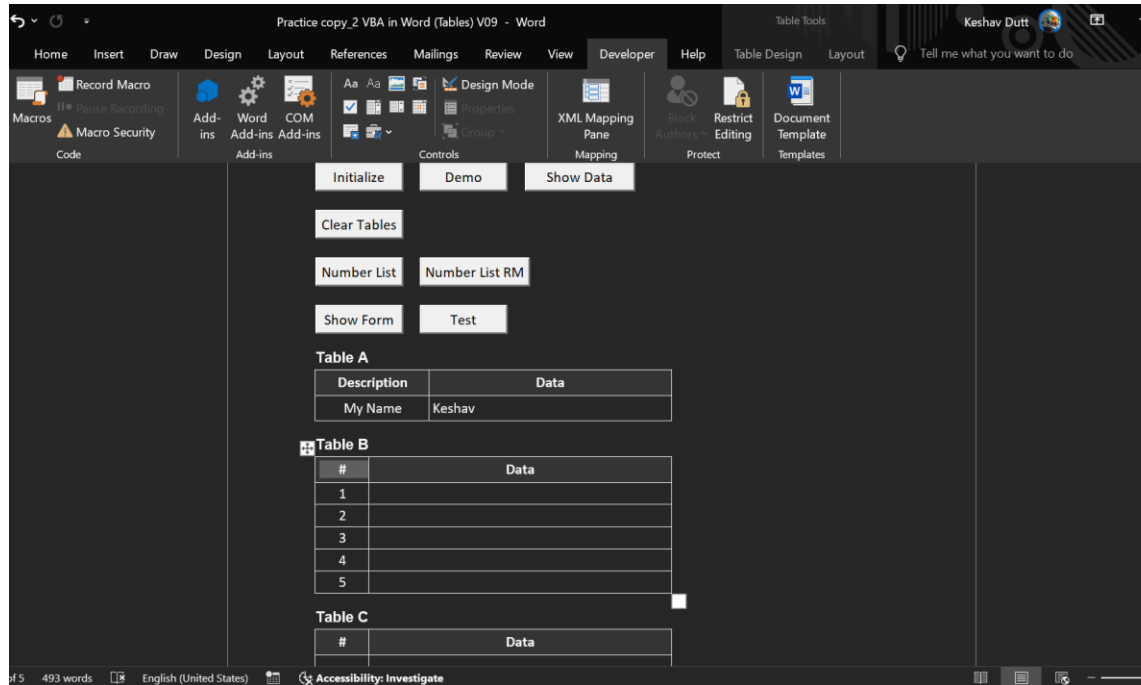
### Level of Difficulty

Low to medium, depending on carefully and thoroughly you investigate.

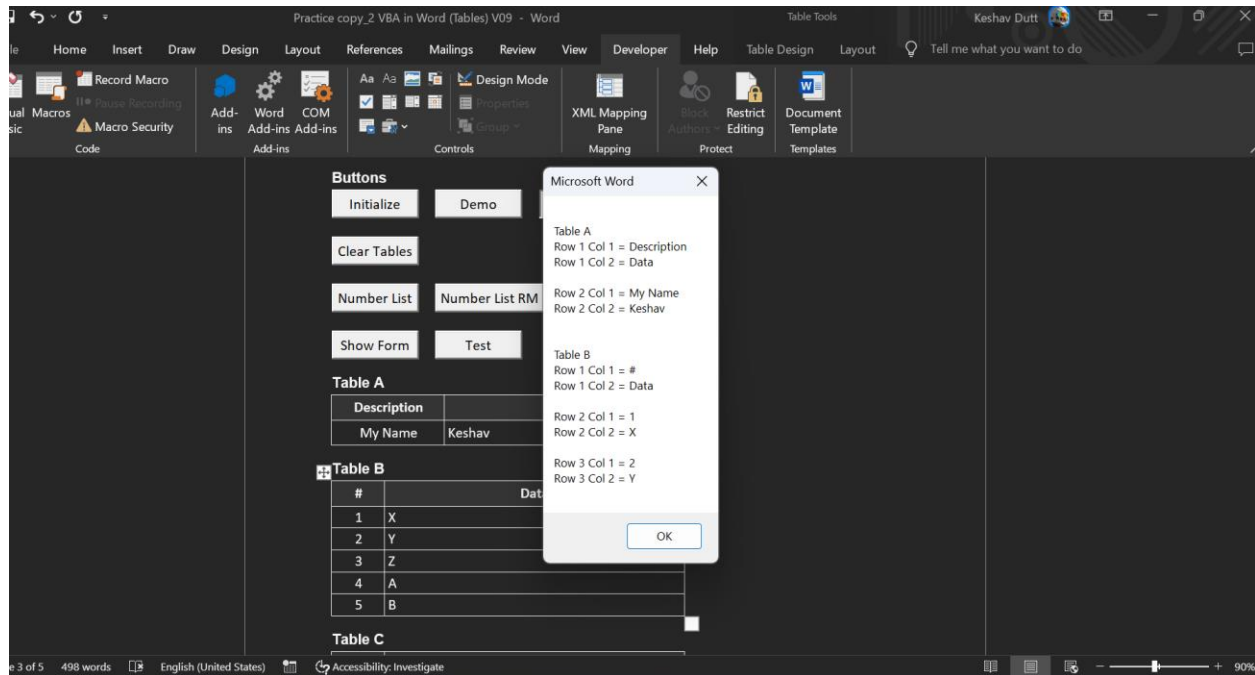
## Answer to Exercise 1

### Experiment 1:

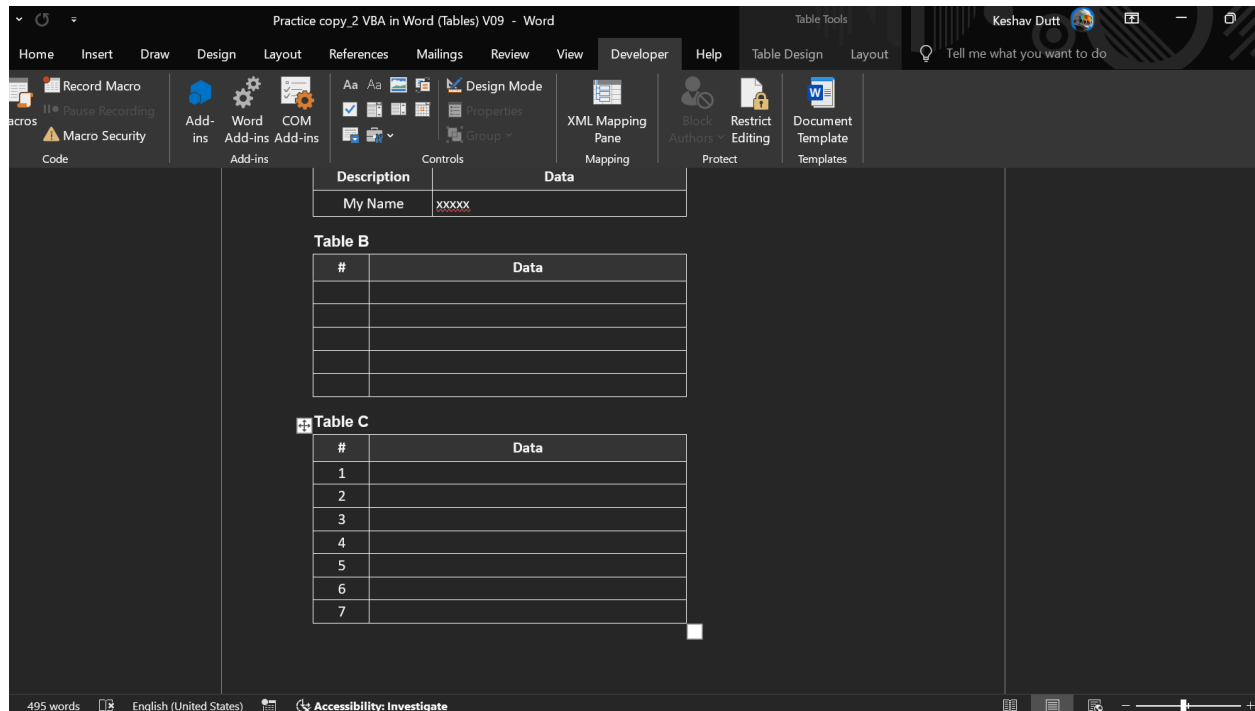
1. Tested combinations of Demo, Number list and Clear Tables buttons to understand – Demo:
2. When prompted for my name, I entered "Keshav" to test the functionality of the button.
3. Clear Tables:  
After inserting random values into all three tables, I used the "Clear Tables" button to remove all the values from every cell in the tables.
4. Number List:  
I selected all three tables to obtain serial numbers for each row. The subroutine ensures there is a table in the selection and only types in existing rows, starting from row 2. It executes a subroutine coded by a programmer.



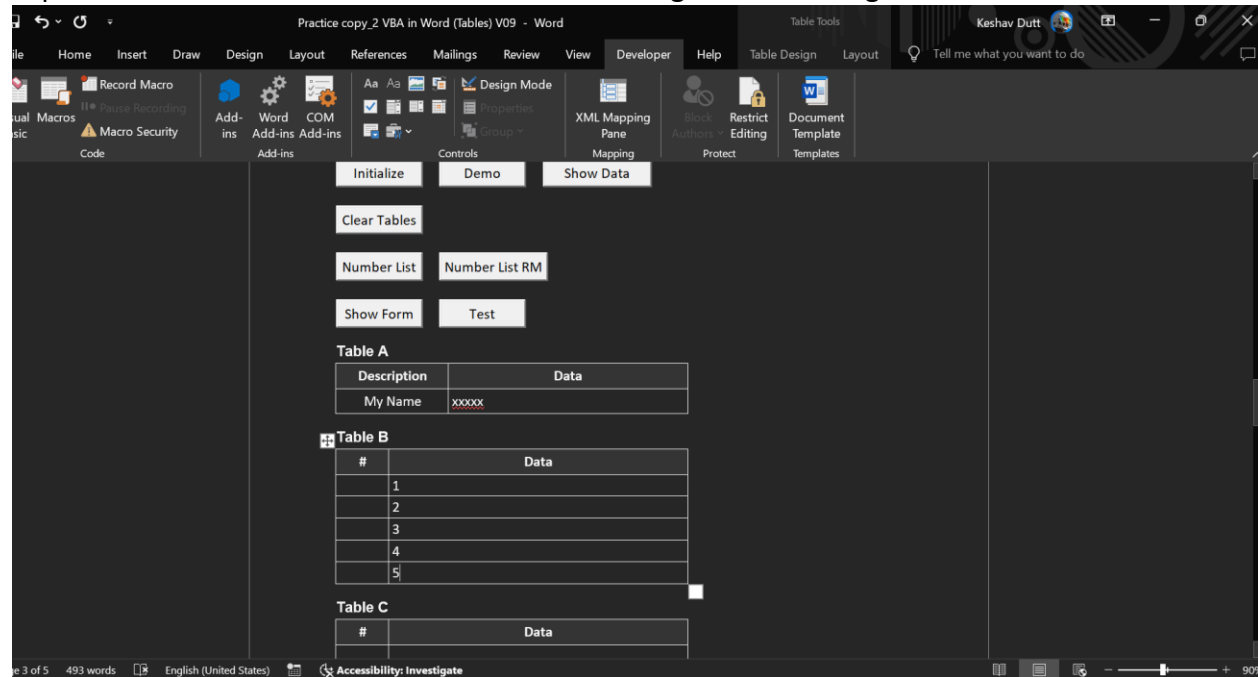
Experiment 2: It showed the data that we inserted in the tables



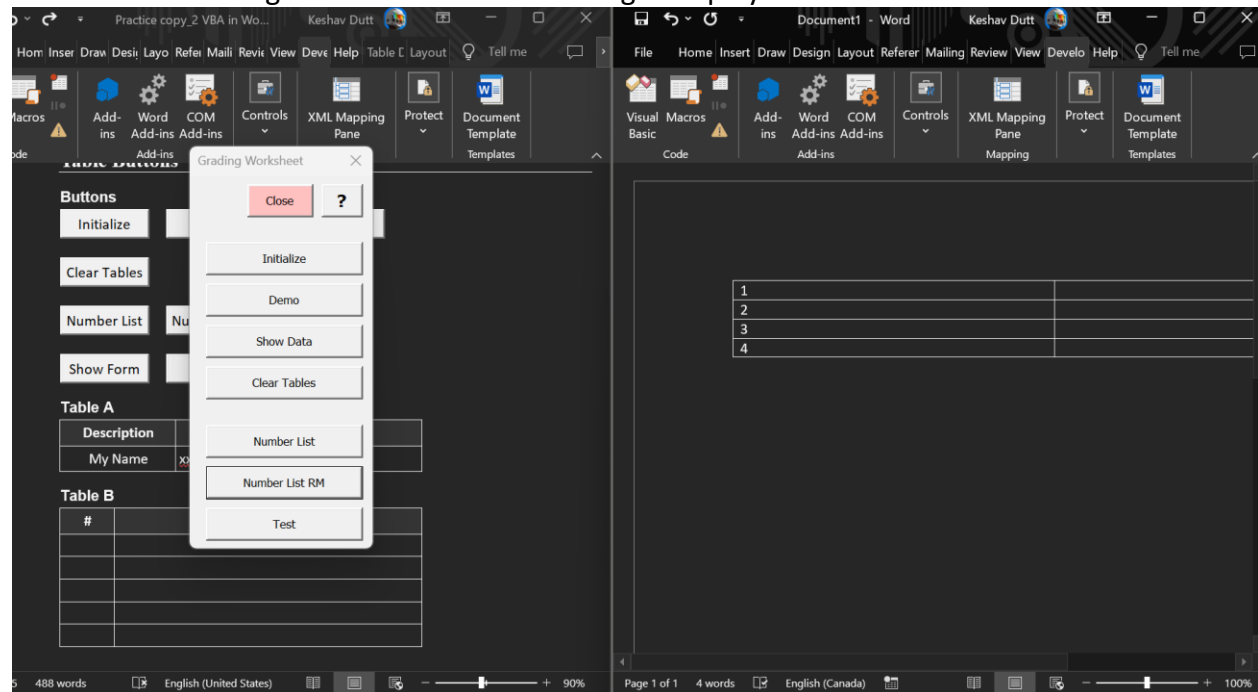
Experiment 3: The Number List button did the indexing of the selected table.



Experiment 4: We used Number List RM button to get the indexing in the selected table



Experiment 5: We created another new word document with test table to check the Show Form Button from the original document and values got displayed in the test document.



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## Exercise 2 – Review the VBA Code for a Button

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### Instructions

- Review one of the subroutines in this document and provide an explanation of what each line does.
- Write your explanations In the space below.

### Level of Difficulty

Medium to Advanced, depending on which subroutines you analyze and the number of subroutines

### Answer to Exercise 2

We have chosen "Clear All Tables" Subroutine from this document and with the help of VBA Code we understood each line which further helps breaking down its meaning:

This part starts a function called "ClearAllTables". It's like a set of instructions to clear tables.

```
ActiveDocument.Tables(TableA).Cell(1, 1).Select  
ClearSelectedTable
```

ActiveDocument.Tables(TableA).Cell(1, 1).Select:

This will select the currently active document in Microsoft Word and the particular table in the document, which here is first row and first column of "Table A".

ClearSelectedTable:

- This subroutine calls function "ClearSelectedTable" which handles the task of clearing the contents of the selected table.

This will be repeated for the other tables (B and C) mentioned in the document as well.

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## Exercise 3 – Change the VBA Code for a Button

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### Instructions

Make a change to the PutNumbersInTable subroutine so that it puts the numbers 10, 20, 30, ... in the rows rather than 1, 2, 3, ...

Test the subroutine to ensure it works.

Write the following in the space below:

1. A description of the method (algorithm) you used to compute the numbers
2. The VBA code that inserted.
3. A copy of the output of your changed subroutine

### Level of Difficulty

Medium to Advanced, depending on if you make errors and have to debug these errors.

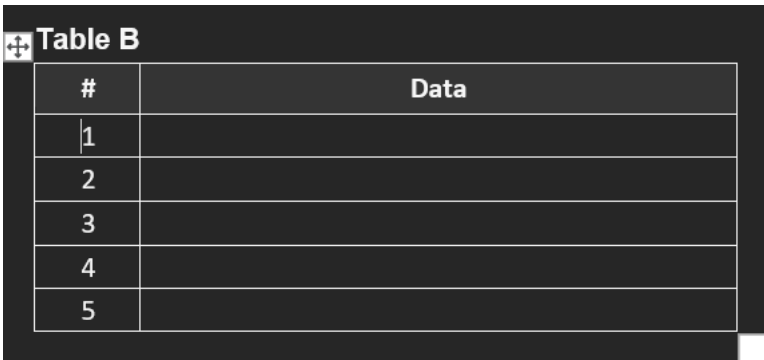


### **Answer to Exercise 3**

**Explanation:**

1. The PutNumbersInTable subroutine carries out the following functions:

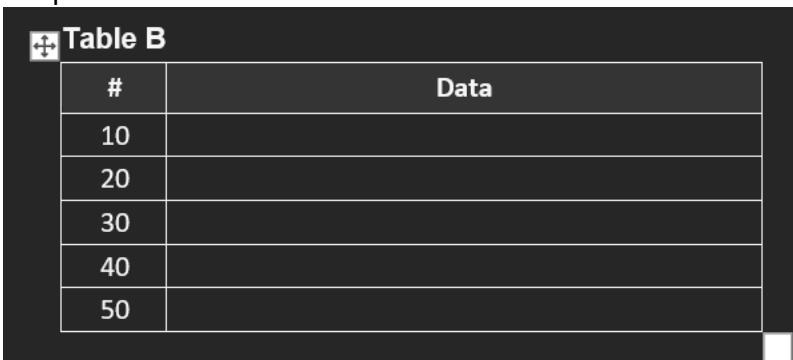
- Confirms the presence of a table within the selected area.
- Verifies that there are a minimum of two rows in the table.
- Inserts numbers into rows 2 through the last row in the first column (1) of the selection.
- The numbering sequence follows the pattern 1, 2, 3,... and is determined by the row number minus 1 to obtain the final value. For instance, for row 3, subtracting 1 yields a value of 2.



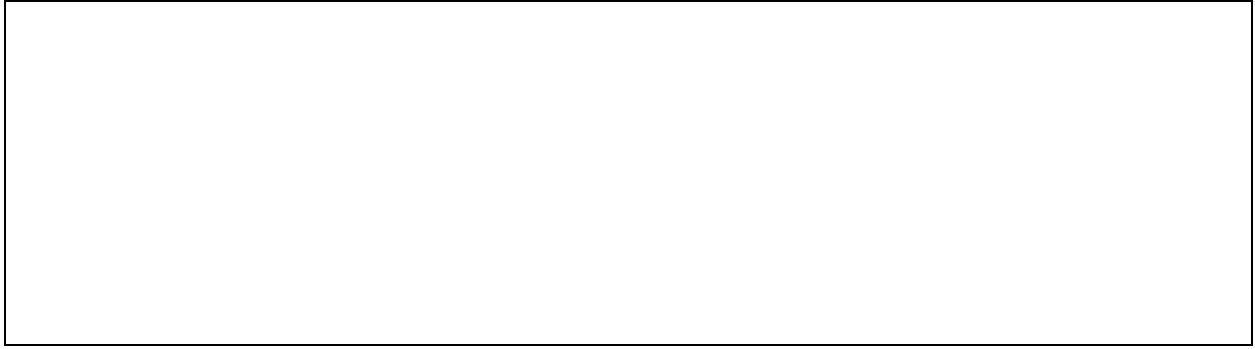
#	Data
1	
2	
3	
4	
5	

2. Change in code from these lines :

```
.Cell(i, 1).Range = ((i - 1) * 10)  
Next  
End With  
End Sub
```

**Output:**

#	Data
10	
20	
30	
40	
50	



## Document History

Version	Date	Status	Description	Author
01	26 May 2019	Final	First version of separate document for VBA	R. Levine
02 – 07	6 June 2020 - 27 Feb 2023	Final	Progressive enhancement. For details see archived history for first 7 iterations	R. Levine
08	4 June 2023	Final	Separation of these exercises (three) to separate document and treat the exercises independent from the VBA document	R. Levine
09	2 Feb 2024	Final	Some small changes to the instructions to make better questions	R. Levine
10	26 Feb 2024	Final	Performed the exercises on VBA and recorded the observations	WG 4

Version 10 / February 26, 2024 / Final