**Workbook exercise #4: Second VBA exercise for Word**

Due dates for book exercises can be found on the main grid of the course webpage:

- https://pages.cpsc.ucalgary.ca/~tamj/2020/203F/index.html#Main_grid

This assignment will be more challenging than the other workbook exercise. Partly it's because the first exercise was simply to get you to write a simple working program, partly because this exercise is give you some actual practice, writing a program that requires more than just following a bunch of steps or looking up the answer in the notes. In that way it's similar to the full assignment coming up you must think through your solution albeit the solution is far less complex. In that way it will help you prepare for writing the larger and more complex program needed for the next assignment.

Here is a [starting document] to ensure that you at least start with the type of Word document that can contain a macro. (It doesn't contain any VBA instructions). The document is provided so you start with a Word document that can contain a macro (**docm**), whether or not you use it is entirely up to you. If you are unsure of what is required in the creation of a VBA program then you should refer the extra notes that you should have been taking while I covered the material to the first set of VBA lecture notes.

Below is one important reminder image of how you should save your macros (in this case the name of the Word document to contain the VBA macro is called "starting document" but as mentioned your starting should be called **"exercise4VBA"**).
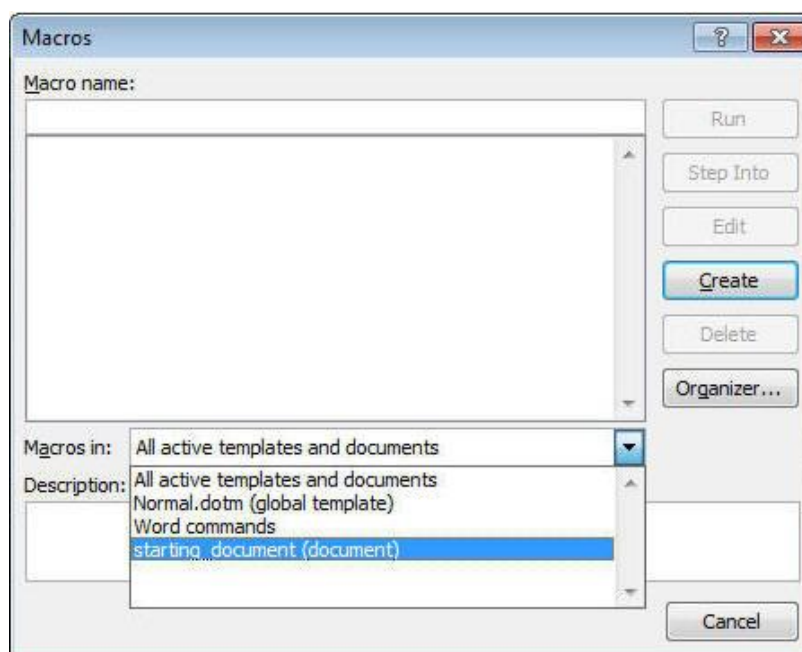
Because your macros will be included in the document, when it comes time to submit your work you can just upload the macro-enabled document. **Double check that your VBA macro really is in the Word document that you upload!** It is up to you to do the check, you shouldn't rely on us to do it for you. If you want to be extra safe (and I highly recommend that you do this) you can copy paste your VBA program into a regular Word document (or even into the macro-enabled Word document that contains your macro) and submit that extra Word document as well the macro-enabled document. Alternatively you can just copy-paste your VBA program from the Visual Basic editor into the `exercise4VBA` Word document.

It would be a good idea to check your submission by downloading what you uploaded into D2L and actually open that document, ideally on a different computer that the one you used to write your VBA program (to help ensure that you aren't looking at a local file on the first computer which you used to write the program). As was the case with the assignments do not use other compression utilities (such as zip), otherwise your submission may not be marked.

Requirements for this exercise

Similar to the assignment everyone starts out with a grade point of zero for this exercise. As you implement the features listed below your grade will increase.

Write a VBA program called **"exercise4VBA"**. That should also be the name of your Word document as well. To help you test your program there are 4 Word documents. Download these to folder that contains the VBA program that you are creating for this exercise. In addition to testing your program with these documents you should test your solution with test cases in other Word documents that you have made yourself to check any other cases that you might think are relevant.

- <u>'case1A has typo zero images</u>' (at least one spelling mistake and no inline images)
- <u>'case1B has typo 3 images</u>' (at least one spelling mistake and multiple inline images)
- <u>'case2 no typos 1 image</u>' (no spelling mistakes and a single inline image)
- <u>'case3 no typos 3 images</u>' (no spelling mistakes and multiple inline images)

You don't need to submit this 4 Word documents but you should test your program with these files because the program you need to submit will have to handle the above 4 cases properly.

Program features and grading.

- The following counts will carried out via the **'ActiveDocument'** object.
  - The program will count and display using a **MsgBox** (**0.5 GPA**) the number of typo graphical errors.
  - Count and display using a **MsgBox** the number of **'InlineShapes'** which is (**0.5 GPA**) in the document.

o   To make an open Word document active you can click on it.
o   In order to test your program with the document for Case 1A you would open the document '`case1A_has_typo_zero_images`' (or click on the window containing document if it is already open). Then **without clicking on any other Word** documents (not even the one containing your VBA program) you would go into the VB editor and run your program. Because the last Word document that you clicked on was `case1A_has_typo_zero_images` then that is the Word document where the count of spelling mistakes and number of inline images would be performed.

- After getting the counts the program will display one of 3 `MsgBox` popups depending upon the following conditions. You need to apply `IF` structures in order to ensure that the correct message appears under the correct condition.

   o   **Condition 1** (`1.0 GPA`): The currently active Word document has **one or more spelling mistakes** (as counted by Word) the popup message will take the form `<"Num typos: "> <Actual # typographical mistakes> <", Num inline shapes: not counted">`. The number of inline shapes will have no bearing on whether or not this popup appears.
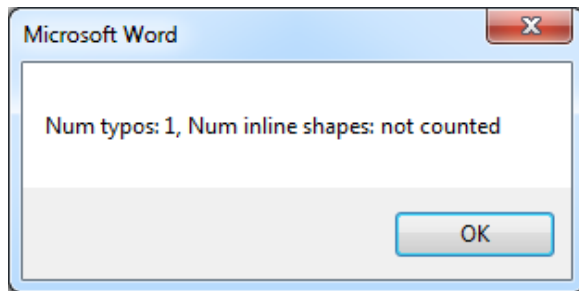
   o   **Condition 2** (`1.0 GPA`): The currently active Word document has **no spelling mistakes** (as counted by Word) and **there are less than 3 inline shapes** the popup message will take the form `<"Num typos: "> <Actual # typographical mistakes> <", Num inline shapes: too low">`.
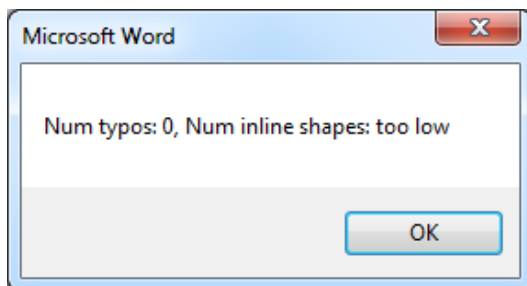
   o   **Condition 3** (`1.0 GPA`): The currently active Word document has **no spelling mistakes** (as counted by Word) and there are **at least 3 inline shapes** the popup message will take the form `<"Num typos: "> <# typographical mistakes> <", Num inline shapes: "> <# of inline shapes>`.
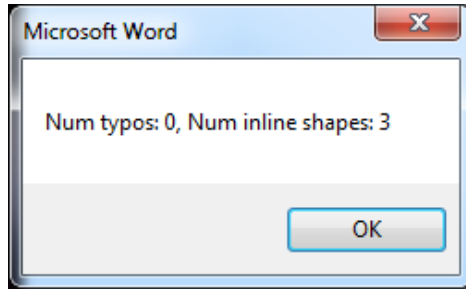
- In terms of the output of the message box for the 3 conditions: the part between the quotes is what literally appears in the popup, the part that is italicized and not quoted will be a number that varies depending upon the number of spelling mistakes or the number of inline shapes in the document. You will **only get credit** for the above 3 popups if the **messages appear under the correct conditions** (described under each of the 3 conditions).

Submitting your work:

- The file must be electronically submitted using D2L.
- You don't need any special naming conventions for this exercise. Keep in mind only the latest file is the one that will be marked, everything else will be ignored (because it is not fair to your marker to sort through multiple versions of your files). Whatever name you have for the latest make sure that it's what you truly want marked!
- D2L configuration for this course
    - Multiple submissions are allowed for this assignment: You can (and really should) submit work as many times as you wish before the due date. Due dates are strict, only what is in D2L by the deadline is what will be marked. **Other methods of verifying that your work was completed on time (e.g. checking timestamps, emailed files etc.) will NOT be accepted**.
- Do not use compression utilities (such as zip) or archiving utilities (such as tar) otherwise your submission may not be marked. The space savings in D2L is not worth the extra time required by the marker to process each submission.
- Make sure that you [check the contents of your submitted files] (e.g., is the file okay or was it corrupted, is it the correct version etc.). It's your responsibility to do this! (Make sure that you submit your assignment with enough time before it comes due for you to do a check).

Important points to keep in mind:

1. **Extensions** may be granted for reasonable cases by the course instructor with the receipt of the appropriate documentation (e.g., a completed Statutory declaration form that has been signed by appropriate Deponent, you can get an appointment via the Office of the Registrar). Typical examples of reasonable cases for an extension include: illness or a death in the family. Cases where extensions will NOT be granted include situations that are typical of student life: having multiple due dates, work commitments etc. Teaching Assistants (the people working in the 203 lab room) will not be able to provide extension on their own and must receive written permission from the course instructor first. (Note: Forgetting to

submit/not properly submitting your assignment or a component of your assignment in does not constitute a sufficient reason for special grading considerations).
2. **Collaboration**: Assignments must reflect individual work, group work is not allowed in this class nor can you copy the work of others. To avoid problems students should not see each other's assignment solution.
3. **Execution**: the submission must work on the machines on campus Windows computers. (For the remote learning semester since access to the lab computers is more challenging: the requirement is that your document works on any Windows computer). It's up to you to test and check this is the case. Non-functional submissions will receive only partial credit (if any at all).
4. **Late submissions**:

Submission received:	On time	Hours late : >0 and <=24	Hours late: >24 and <=48	Hours late: >48 hours
Penalty:	None	-1.5 GPA	-3.0 GPA	No credit

Marking:

- If you have questions about your marking then the first person to talk to is your marker and that will be the person who teaches the tutorial in which you are officially registered. [Tutorial information] If you still have questions after this first step then feel free to contact your course instructor, just let me know that you talked to your TA first.
- Marking feedback. This workbook exercise has far fewer features than an assignment so there is a need for a marking spreadsheet. If any feedback is needed then you can find it directly in the D2L Dropbox folder for this exercise along with the