**Excel Assignment - 18**

1. What are comments and what is the importance of commenting in any code?

Ans: Comments are text notes added to the program to provide explanatory information about the source code. They are used in a programming language to document the program and remind programmers of what tricky things they just did with the code and also help the later generation for understanding and maintenance of code. The compiler considers these as non-executable statements. Different programming language uses a different way of including the comments in the source code.

1. What is Call Statement and when do you use this statement?

Ans: The CALL statement transfers control from one object program to another within the run unit.

### The program containing the CALL statement is the calling program; the program identified in the CALL statement is the called subprogram. Called programs can contain CALL statements; however, only programs defined with the RECURSIVE clause can execute a CALL statement that directly or indirectly calls itself. Format

Read syntax diagram[Skip visual syntax diagram](https://www.ibm.com/docs/en/cobol-zos/6.3?topic=statements-call-statement#skip)CALL

identifier-1literal-1procedure-pointer-1function-pointer-1USINGBYREFERENCEADDRESS OFidentifier-2fixed-phrase file-name-1OMITTEDBYCONTENTADDRESS OFLENGTH OFidentifier-3fixed-phrase literal-2OMITTEDBYVALUEADDRESS OFLENGTH OFidentifier-4literal-3RETURNINGidentifier-5 exception-phrases END-CALL

fixed-phrase

Read syntax diagram[Skip visual syntax diagram](https://www.ibm.com/docs/en/cobol-zos/6.3?topic=statements-call-statement#skip)AS FIXED LENGTH

integer-4

exception-phrases

Read syntax diagram[Skip visual syntax diagram](https://www.ibm.com/docs/en/cobol-zos/6.3?topic=statements-call-statement#skip)ON

EXCEPTIONimperative-statement-1not-exception-phraseONOVERFLOWimperative-statement-3

not-exception-phrase

Read syntax diagram[Skip visual syntax diagram](https://www.ibm.com/docs/en/cobol-zos/6.3?topic=statements-call-statement#skip)

1. How do you compile a code in VBA? What are some of the problems that you might face when you don’t compile a code?

Ans: The easiest answer is simply that it reviews your code to ensure it is a ‘sanitary/clean’ code.  This means it checks that all the required input variables are present, it validates that all required variable declarations are present (assuming you use Option Explicit, which you should!)

By Compiling your VBA code, you minimize runtime errors and crashes.  
The following is an example of compiling VBA code within MS Access, but the principle is the same across all Office applications: MS Word, MS Excel, MS PowerPoint, …

Open your MS Access database

Press **CTRL+G** (or ATL+F11) to enter the VBE (Visual Basic Editor)

On the Standard Toolbar, Go to **Debug** -> **Compile Your Database Name**

Below is an example of one type of error that can be flagged (missing variable declaration within an Option Explicit module)  
So once you successfully address all the flagged errors, the compilation should complete with reporting any more errors, thus your VBA code is clean and you can continue to distribute your App.

Normally, you will learn to compile your code regularly while you code, thus saving you excessive hassle at the end.

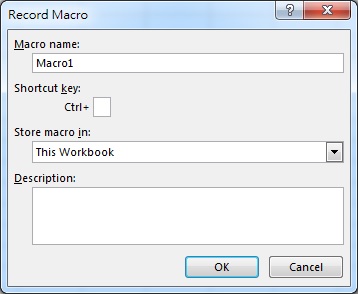
In the case of MS Access specifically, you will be unable to create a compiled version of your database (made or acceded) until your code can be compiled without error!  Once again illustrating the importance of regular compilation.

1. What are hotkeys in VBA? How can you create your own hotkeys?

Ans: Hotkeys are the shortcut keys in the VBA, Excel is very kind to have a built-in Record Macro function, which allows you to record actions and turn them into Excel VBA code.

## Assign hotkey to Macro in workbook

If you create a Macro from “[Record a Macro](http://access-excel.tips/excel-record-macro/)“, you can assign a hot key to a Macro, but the combination must include CTRL.

[](http://cdn-0.access-excel.tips/wp-content/uploads/2015/01/assignMacro1.jpg)

You can ignore the restriction of CTRL combination in VBA using OnKey Method, and you can add more than 2 keys as hotkey.

## Assign hotkey to Macro using OnKey Method

#### Syntax of OnKey Method

Application.OnKey(**Key**, **Procedure**)

Key – A string indicating the key to be pressed

|  |  |
| --- | --- |
| Key | Code |
| BACKSPACE | {BACKSPACE} or {BS} |
| BREAK | {BREAK} |
| CAPS LOCK | {CAPSLOCK} |
| CLEAR | {CLEAR} |
| DELETE or DEL | {DELETE} or {DEL} |
| DOWN ARROW | {DOWN} |
| END | {END} |
| ENTER (numeric keypad) | {ENTER} |
| ENTER | ~ (tilde) |
| ESC | {ESCAPE} or {ESC} |
| HELP | {HELP} |
| HOME | {HOME} |
| INS | {INSERT} |
| LEFT ARROW | {LEFT} |
| NUM LOCK | {NUMLOCK} |
| PAGE DOWN | {PGDN} |
| PAGE UP | {PGUP} |
| RETURN | {RETURN} |
| RIGHT ARROW | {RIGHT} |
| SCROLL LOCK | {SCROLLLOCK} |
| TAB | {TAB} |
| UP ARROW | {UP} |
| F1 through F15 | {F1} through {F15} |

The above table and the below table are used to make a combination of “key” parameter. Hotkey must not be empty in order for the hotkey to work.

|  |  |
| --- | --- |
| To combine keys with | Precede the key code by |
| SHIFT | + (plus sign) |
| CTRL | ^ (caret) |
| ALT | % (percent sign) |

Procedure – Name of the Macro (Sub Procedure)

1. Create a macro and shortcut key to find the square root of the following numbers 665, 89, 72, 86, 48, 32, 569, 7521?

Ans: Sub SQRT()

Dim inp As Integer

Dim out As Double

inp = InputBox("Enter your input value here")

out = Sqr(inp)

MsgBox "Square root of the input value: " & out

End Sub

Shortcut key – F5

6. What are the shortcut keys used to

a. Run the code – F5

b. Step into the code – F8

c. Step out of code – Shift + F8

d. Reset the code – ALT + R+R