Assignment 1 **Winter 2013**

Weight: 5.1% of final grade **Marks: 16**

Due: Saturday, January 26, 11:45pm **This document has 4 pages.**

Rubric

All assignments will use the same marking rubric as provided in this file and also available in MyLearningSpace in the Dropbox. Use the rubric to check your own work before you submit it.

With the rubric, all assignments are out of 16 points. Rubrics allow for consistency of marking and serve as clear guidelines as to what is expected of your assignment.

Part 1 - Loan Payment

In a new workbook, create a worksheet called **Loan** and design a simple spreadsheet that will allow a user to calculate the payments they will make on a car loan. You will use Excel's payment function (PMT())and have the user be able to modify the inputs used in the function. You can delete the other worksheets with the name "Sheet" in them.

Note: Using the PMT function, any money that you have to pay out will be shown as negative. This is not an error.

TIP To make your spreadsheet look more professional, remove the gridlines by clicking the **View** tab and clicking **Gridlines**.

Use **Cell Styles** to indicate which cells the user can change and which cells the user cannot. Using the references below if necessary, protect the worksheet by locking cells so the user cannot change or delete the equation. Make sure the worksheet is user friendly by making it clear and easy to use for someone who doesn't know much about Excel.

Protecting a worksheet / Protecting Cells
http://office.microsoft.com/en-us/excel-help/lock-or-unlock-specific-areas-of-a-protected-worksheet-HA010342979.aspx?CTT=1
Detailed Video
http://office.microsoft.com/en-us/excel-help/video-protect-worksheets-and-workbooks-VA101810239.aspx?CTT=1

Part 2 - Web Query

On a worksheet called **WebQuery,** create a web query which pulls data from http://finance.yahoo.com for your favourite company/stock.

This sheet will act as the "backend" for another sheet you'll create called **My Stock** which will display just the **Last Trade** price from your stock from the **WebQuery** sheet.

If you need help creating a WebQuery, first use your favourite Internet search engine, then if that doesn't help see your Instructor.

Part 3 - Click & Compare

Download **monthly** stock prices for RIM (Stock ticker: RIMM) and Nokia (NOK) from Jan 1, 2012 to Dec 31, 2012 (it will probably include Dec 31, 2011) from Yahoo! Finance. They can be downloaded as **.csv files**. When you are looking at the prices for a specific stock, there is a link on the left for Historic Prices.

Place the data for both companies on the same sheet of your workbook and call it **Stock Prices**.

Data may be stored in reverse order by date. Sort the data so that the earliest date is at the top.

Record a macro while you create a chart for each stock. Use whatever type of chart you think works best. Only plot the **Adjusted Close** column against the date so the data will be easy to compare. (Dates across the horizontal axis, Adjusted Close across the vertical axis).

Delete the charts so that you when you run your macro, the charts are created again, but make sure the charts are deleted before you submit the assignment. You'll have to save your file as **a Macro Enabled Workbook** before you submit it or your macros will be deleted. Make sure you examine each line of the macro and understand how it works. You should not have references to “Chart 1” or “Chart 2” or any other chart number in your code.

Add a **Forms** button to your spreadsheet that will run your macro. Placing a button in the quick access toolbar will only work for your computer, so we won't be able to run it from there so the button must be placed ony our spreadsheet.

Make sure there are two buttons on your worksheet – one to display the RIM chart and one to display the Nokia chart. These means you will have to macros, one for each set of data.

If you cannot download the files from Finance.yahoo.com, contact your instructor and he will provide the files.

This “Extra Mile” icon represents an item that may challenge you a bit and is worth attempting, but will not have any impact on your grade. If you do it, you don’t get any extra marks and if you don’t do it, you don’t lose out either, but it is recommended you give it a try**. Extra Mile: Try creating a macro that will delete the selected Chart or remove both charts from the screen. This way, you can create a chart and remove a chart simply by clicking buttons. This may cause errors and may not work with what you know so far about VBA, but try it anyway.**

Excel Application Rubric v1

Criteria	Excellent	Good	Amateur / Satisfactory	Unsatisfactory / Needs Improvement
Code Comments	4 points Comments clarify meaning where needed.	3 points Comments usually clarify meaning. Unhelpful comments may exist.	2 points Some comments exist, but may be unhelpful or misleading.	0 points No commenting included.
Execution	4 points Program compiles / runs correctly. Program correctly solves problem in all cases. Shows you know what you are doing.	3 points Runs correctly but some pieces missing. Minor errors occur that may not interfere with the correct solution.	2 points Does not run correctly. Major errors. Some components not working.	0 points The program does not run. The file or application cannot be opened. The instructor is unable to mark anything.
Interface Design	4 points Straight forward, easy to use, visually appealing. Interface is user-friendly. Instructions and final output are clear. Uses informative prompts.	3 points Easy to use. On-screen instructions and output are mostly clear, correct and attractive.	2 points Screens are not very clear, output may be barely readable. Not very user-friendly.	1 point Cannot understand how to use your program, but it looks like it does something. Instructions unclear, not user-friendly.
General Design / Modularity / Efficiency / Usability	4 points Modular design - good use of functions, subroutines, and modules. Enjoyable to use.	3 points Mostly modular - good functions and subroutines but only one or too few modules. Solution is easy to follow.	2 points Confusing code. Major components missing. Some design flaws. Poor modularity.	1 point Poor overall design. Most components missing. Serious design flaws. No modularity.
Overall Score	**Excellent** **14 or more**	**Good / Very Good** **11 or more**	**Satisfactory** **8 or more**	**Poor** **0 or more**
	A great assignment. Very little could be improved.	Good piece of software. Solves most of the problem and works well.	Program meets the minimum requirements in most aspects but has some flaws.	Program barely runs if at all. Major components missing.

List of Considerations

This is a partial list of what the markers will look for when grading your assignment. Not all questions are pertinent to assignment 1 because it contains very little code.

Marking Checklist:
Meaningful comments?
Too few? Too many?
Does it run?
Does it do everything required?
Is anything missing?
Does it display errors?
Is it easy to understand if you were not familar with the host application (ex. Excel)?
Are there on-screen instructions?
Is it visually appealing?
Is it user friendly?
Good variable / object naming?
Good modularity?