

COMP1022Q
Introduction to Computing with Excel VBA

About Microsoft Office

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This Course



- In this course we focus on Microsoft Excel
- It is the most commonly used spreadsheet program around the world
- It is the ‘standard’ for spreadsheets
- We will look at how to use Excel both with and without VBA programming
- Because Excel is useful for lots of labs/projects/jobs etc, you will probably find this is one of the most useful courses you will take

Microsoft Office



- Before we learn about Excel, we have to know about Microsoft Office, which is the main ‘productivity’ software used around the world
- The two main programs in Office are:



Word – for writing things



Excel – for calculating things and making charts

Our Hero



Bill Gates



Us

- Bill was the main person who started Microsoft
- After a few years of developing and selling Windows, they started building Excel and other programs
- All these became very popular, making him the richest man in the world

Versions of Office

- Every few years an improved version of Office is released

... older versions ...



Microsoft Office 2010



Microsoft Office 2013



Microsoft Office 2016



Microsoft Office 2019



... future versions ...















- When you use the most recent versions you have to be careful when you save files
- If you save some work which has the latest ‘new’ features, the file probably can’t be read by someone using an older version of Office

Varieties of Office 2019

- Office 2019 has many different editions, with different prices and features – see the next slide
- You can see that Word and Excel are essential programs, included in every edition
- There are other programs also included in Office, but it depends which edition of Office you have

*This is the edition installed in
most HKUST computers*



								
		Office 365 Business	Office 365 Personal	Office Home & Student 2019	Office Home & Business 2019	Office Standard 2019	Office Professional 2019	Office Professional Plus 2019
 Word	?	●	●	●	●	●	●	●
 Excel	?	●	●	●	●	●	●	●
 PowerPoint	?	●	●	●	●	●	●	●
 OneNote	?	●	●	●	●	●	●	●
 Outlook	?	●	●		●	●	●	●
 Publisher	?	●	●			●	●	●
 Access	?	●	●				●	●

- Some extra things are sometimes included but they are not shown here, e.g. cloud storage, Skype usage, training, and so on

Microsoft Office at HKUST

- What about HKUST?
 - Office 2019 ProPlus is installed in all the ITSC Barns, virtual barns, and classrooms
 - Office 2019 ProPlus is installed in the CS lab room, the assigned lab venue (room 4213)
- What about your own machine?
 - Office 365 ProPlus is free at HKUST:
<http://itsc.ust.hk/services/general-it-services/procurement-licensing/office-365-proplus>

What's Office 365?

- Office 365 is a subscription service offered by Microsoft
- As an HKUST student, you can access Office 365 ProPlus for free at <http://o365.ust.hk>
- You can install Office 365 ProPlus from it
 - Information: <http://itsc.ust.hk/kb/article.php?id=483>
- Office 365 ProPlus enables you to install the latest ‘proper’ versions of Microsoft Office programs including Excel, PowerPoint and Word

What's Office Online?



- For non-COMP1022Q work you can consider Office Online
 - It is free
 - You can create and edit Word, Excel, PowerPoint, and OneNote files via a web browser
 - But you have less power, because Office Online doesn't have all the features of the full Office
 - For example, you can open and edit files which contain VBA without removing (or corrupting) the VBA in the file
 - But you cannot create VBA macros
 - That means Office Online is not suitable for COMP1022Q

What About a Mac?

- You can download the latest Mac version or the latest PC version from HKUST: <http://o365.ust.hk>
- Working on a Mac may not be as easy as working on a PC – for example, the VBA editor was quite poor in previous versions of Excel for the Mac!
- The library has a room of Mac computers, but <https://library.ust.hk/services/facilities/software/> says they have the older 2016 version of Office

If You Already Have Office 2016

- What if you already have Office 2016 installed on your machine and you don't want to upgrade it?
- Probably, it will be suitable for 95% of the course
- However, we will only use the **2019 version** to check your work
- So that means, to be safe, you always have to check your work on a 2019 version of Excel before you submit it

Using HKUST Desktop Computers

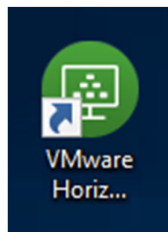
- If you do not want to have Office 2019 in your own computer you can use the PCs in the ITSC computer barns or CS labs
- Also, you can use the ITSC Virtual Barn to get access via the web to a version of Windows which already has Office:

[http://itsc.ust.hk/services/
academic-teaching-support/facilities/virtual-barn/](http://itsc.ust.hk/services/academic-teaching-support/facilities/virtual-barn/)

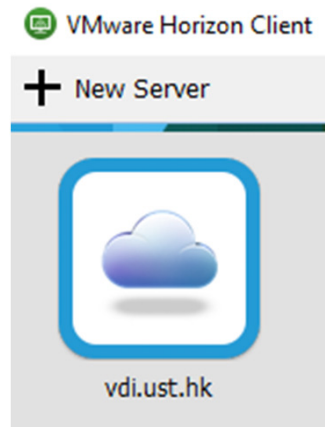
The Virtual Barn

- This gives you access to a version of Microsoft Windows which already includes Office 2019
- You have to install software on your machine first
- Mac/ PC/ Android/ iOS all OK!

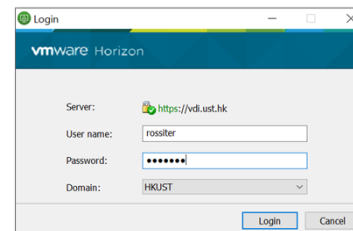
After installing:



1) Select this

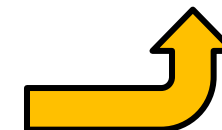


2) Select this

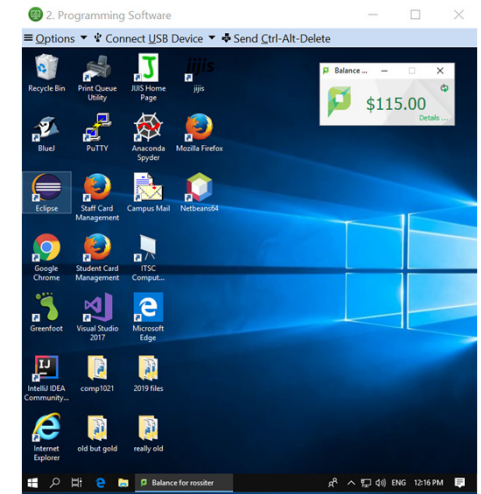


3) Log in

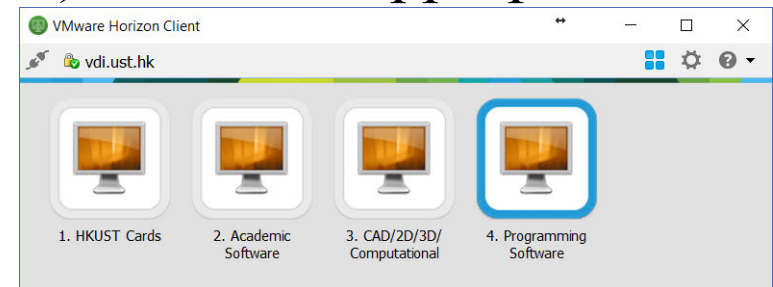
You may or may not see step 4 – if you do see it, you may not see all of the options shown



5) You will see your virtual Microsoft Windows



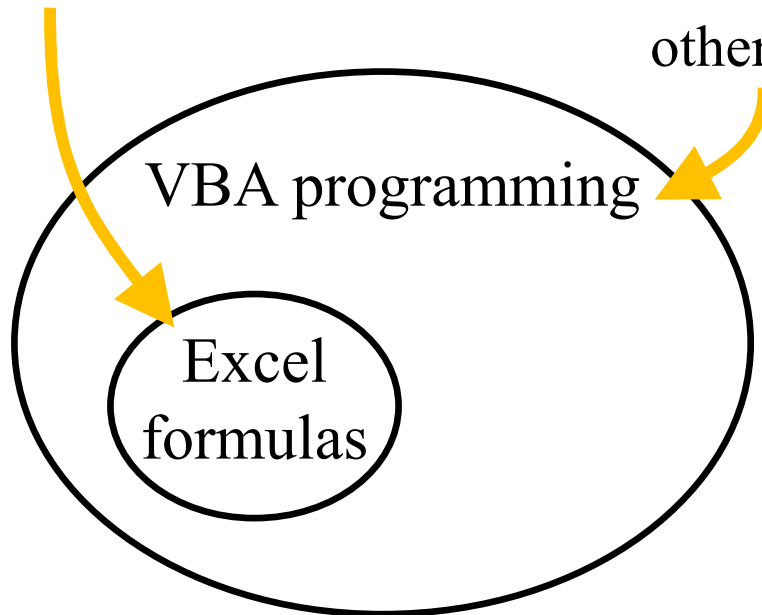
4) Select the appropriate box



Doing Things in Excel



- Many things can be done using Excel formulas (no need to do any programming)
- Some things can't be done using Excel formulas, you have to program them using VBA
- Everything you can do with Excel formulas can be done with VBA programming, and a lot of other things as well



- However, writing Excel formulas is usually less trouble than writing VBA code
- So if you know something can be done using Excel formulas, you would usually do that, and not consider any VBA programming