

# Spreadsheets

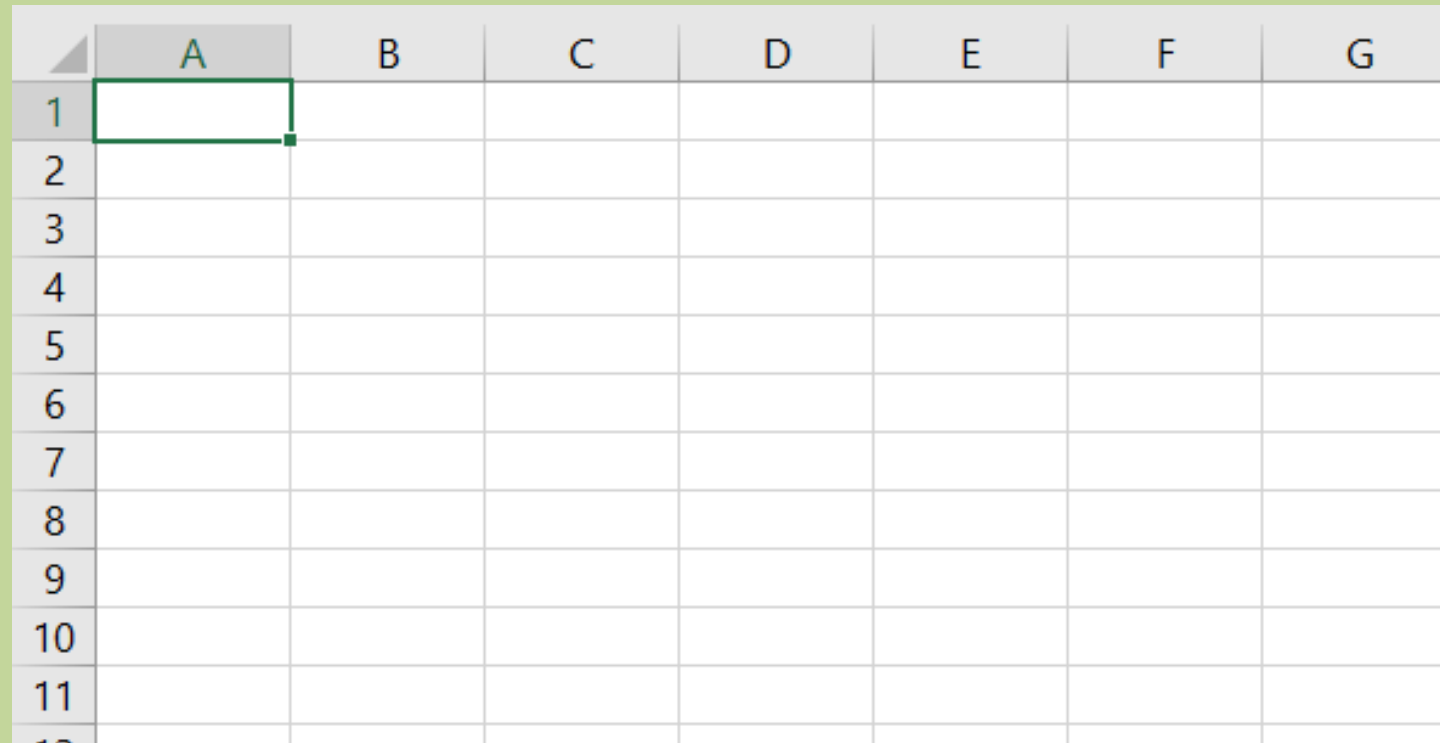


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කාර්යක්ෂමව දත්ත වර්ග කිරීමට, සංවිධානය කිරීමට, සකස් කිරීමට සහ සංවිධානමක දත්ත ගණනය කිරීමට උපකාරී වන පේළි සහ තීරු වලින් සාදන ලද ගොනුවක් පැතුරුම්පතක් හෝ වැඩ පත්‍රිකාවක් වේ.



	A	B	C	D	E	F	G
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							

# පැතුරුම්පත්වල කාර්යභාරය

1. සංඛ්‍යාත්මක දත්ත භාවිතාකර සිදුකරන විවිධ කාර්යයන් සඳහා
2. සරල හා සංකීර්ණ ගණනය කිරීම්
3. දත්ත විශ්ලේෂණය
4. ප්‍රස්තාර සැකසීම
5. දත්ත ගබඩා කිරීම
6. දත්ත වල වලංගුතාවය පරීක්ෂා කිරීම

# Spreadsheets Software

## 1. VisiCalc – Apple Company

- The first spreadsheet software

## 2. Lotus 123 – Lotus software and IBM Company

- 1980 දශකයෙන් දී ඉතාමත් ජනප්‍රිය වූ අතර IBM සමාගම විසින් නිපදවන ලදී

## 3. Microsoft Excel – Microsoft Company

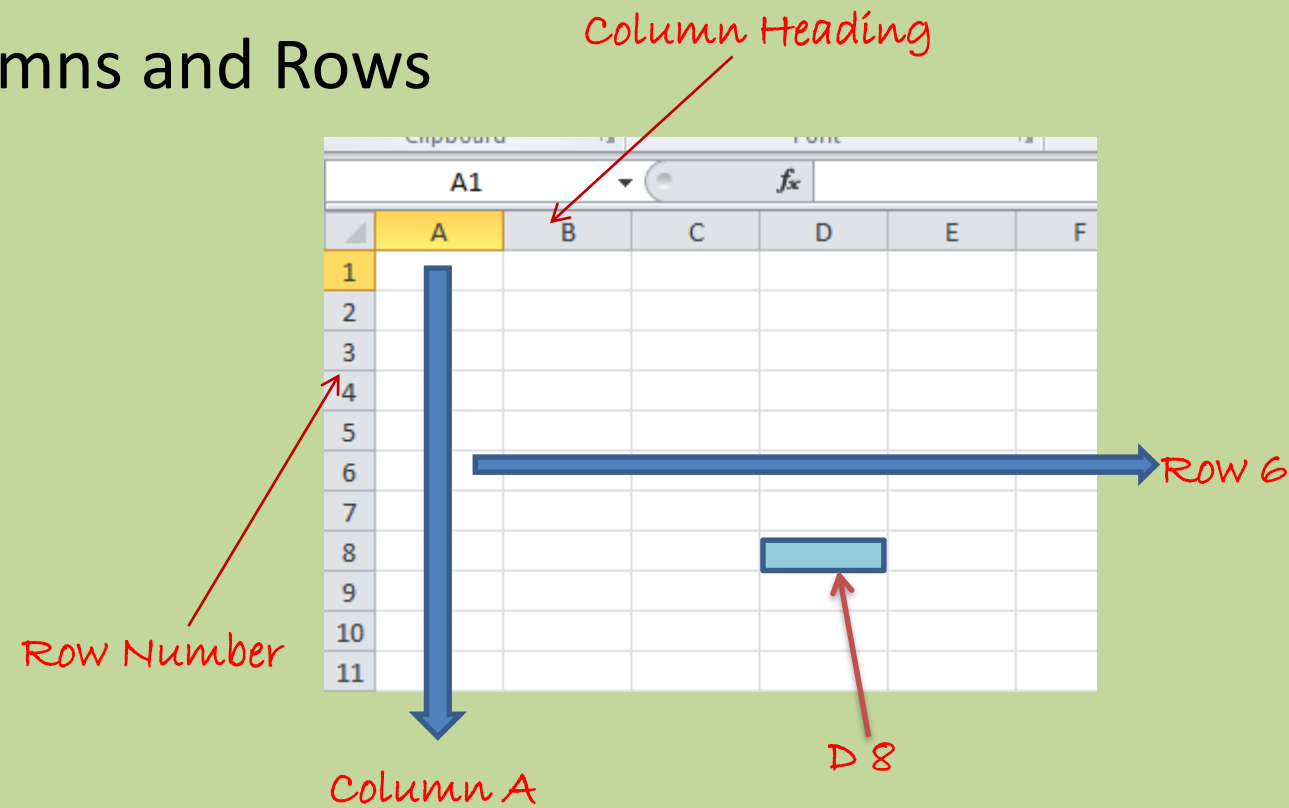
## 4. Libre office Calc – Open Office

## 5. Gnumeric – GNOME Desktop

## 6. Numbers – Mac OS

# පැතුරුම්පත් වල මූලික පාරිභාෂිත පද - Basic Terminology

- Columns / තීරු – A to XFD
- Rows / ඡේදි – 1 to 1048576
- Cells / කෝෂ – Intersections of Columns and Rows
- Cell Address / කෝෂ යොමු
- Active Cell / ක්‍රියාකාරී කෝෂය
- Worksheet / වැඩපත
- Workbook / වැඩපොත
- Cell Range / කෝෂ පරාසය



# Microsoft Excel

**Excel**

Recent

attendance  
F:

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Open Other Workbooks

Search for online templates

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	A	B	C
1			
2			
3			
4			
5			
6			
7			

Blank workbook

	A	B	C	D
1	<b>Your Company Name</b>			
2	Street Address			
3	Address 2			
4	City, ST ZIP Code			
5	Statement			
6				
7				

Billing Statement

	A	B	C	D
1	<b>Blood Pressure Tracker</b>			
2				
3				
4	Name			Systolic
5	Target blood pressure*			120
6				Systolic
7	Call physician if above			Systolic
8				
9				
10				
11				

Blood Pressure Tracker

	A	B	C	D
1	<b>Expense Report</b>			
2				
3				
4				
5				
6				
7				
8				
9				

Expense Report

	A	B	C
1	<b>Loan Amortization Sched</b>		
2			
3			
4			
5	Loan amount		
6	Annual interest rate		
7	Loan period in years		
8	Number of payments per year		
9	Start date of loan		

Loan Amortization

	A	B	C
1	<b>Personal Monthly Budget</b>		
2			
3			
4	PROJECTED MONTHLY INCOME		Income 1
5			Extra Income
6			Total monthly income
7	Income 1		Income 2
8	ACTUAL MONTHLY INCOME		Extra Income

Personal Monthly Budget

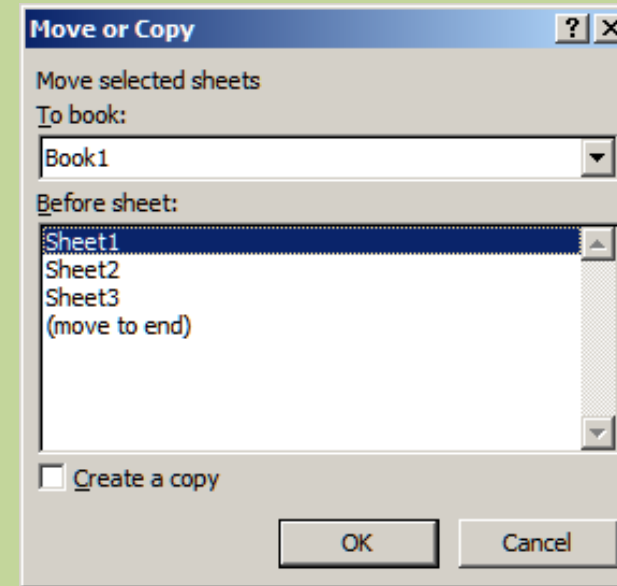
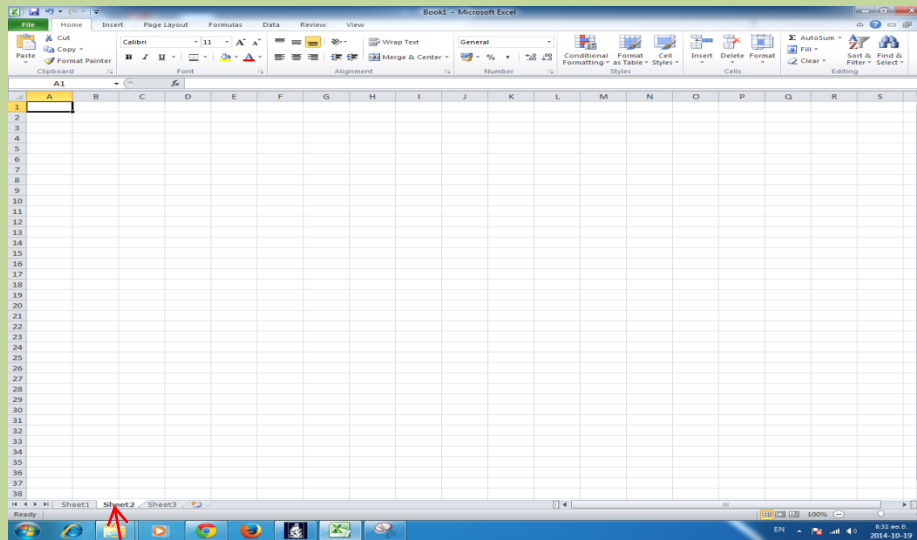
	A	B
1	Product	Customer
2	Alice Mutton	ANTONY
3	Alice Mutton	BENJES
4	Alice Mutton	BOUD
5	Alice Mutton	BOTTM
6	Alice Mutton	ERISH
7	Alice Mutton	GODOS
8	Alice Mutton	HUNISC
9	Alice Mutton	PICCO

Sales Report

	A	B	C
1			
2			
3			
4			
5			
6			
7	Employee		
8			

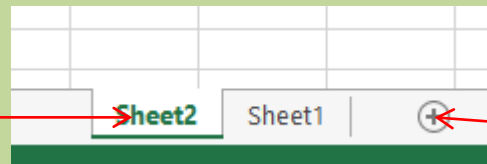
Time Card

# Add, Delete, Copy, Move and Rename Worksheet



Right click on a **sheet name** and click on **move or copy**

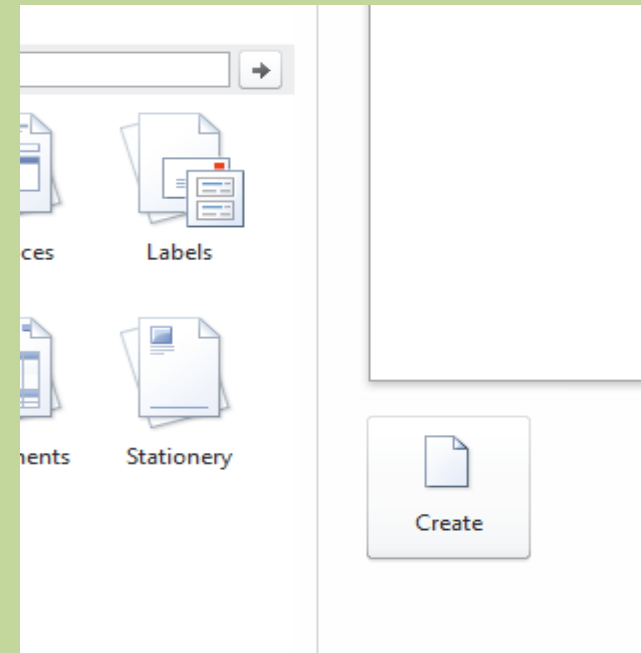
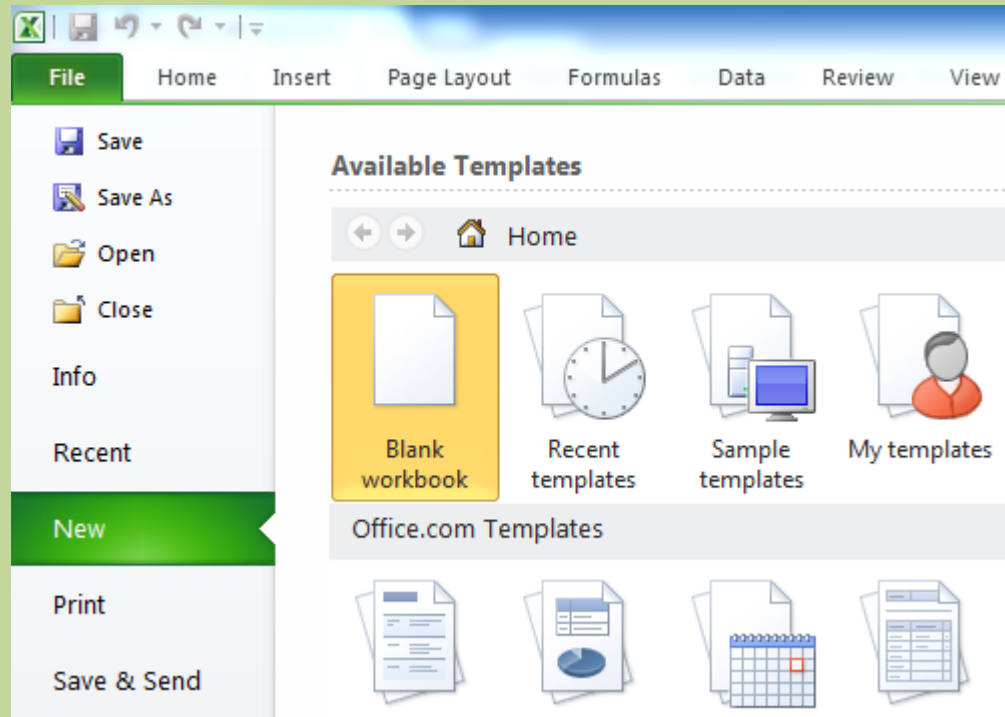
Rename a sheet  
Right Click Here, select **rename** and type a new name (**salary**)



Ada a new sheet  
Click Here for New Sheet (Shift + F11)

# Creating new blank workbook

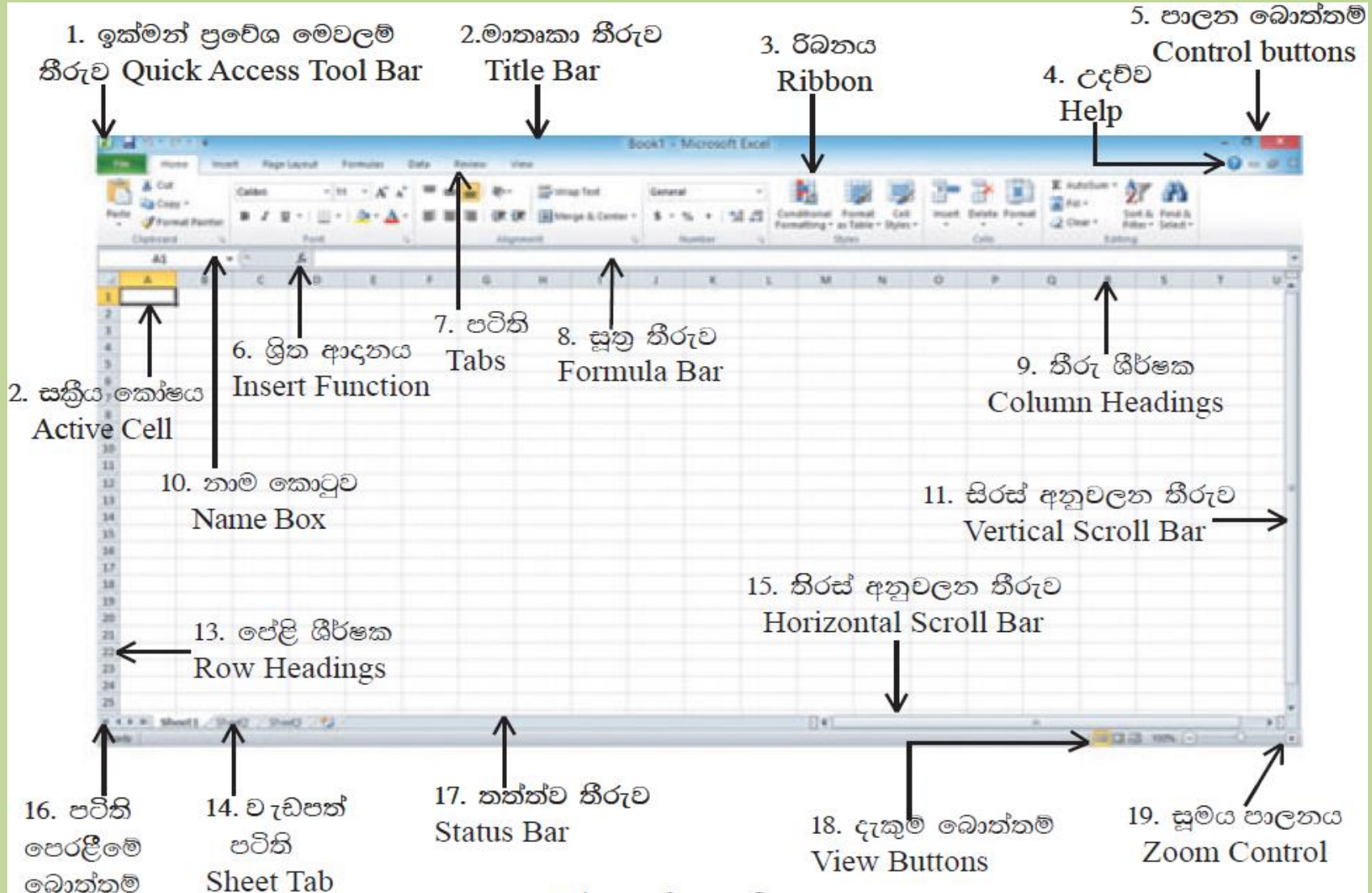
1. File -> New-> select **blank workbook** (shortcut ctrl + N)
2. Or select a **template** in the list and click **Create**



## Exercise

Create 2 Workbooks using above two methods

# Microsoft Excel Interface



# Moving Around the Cells

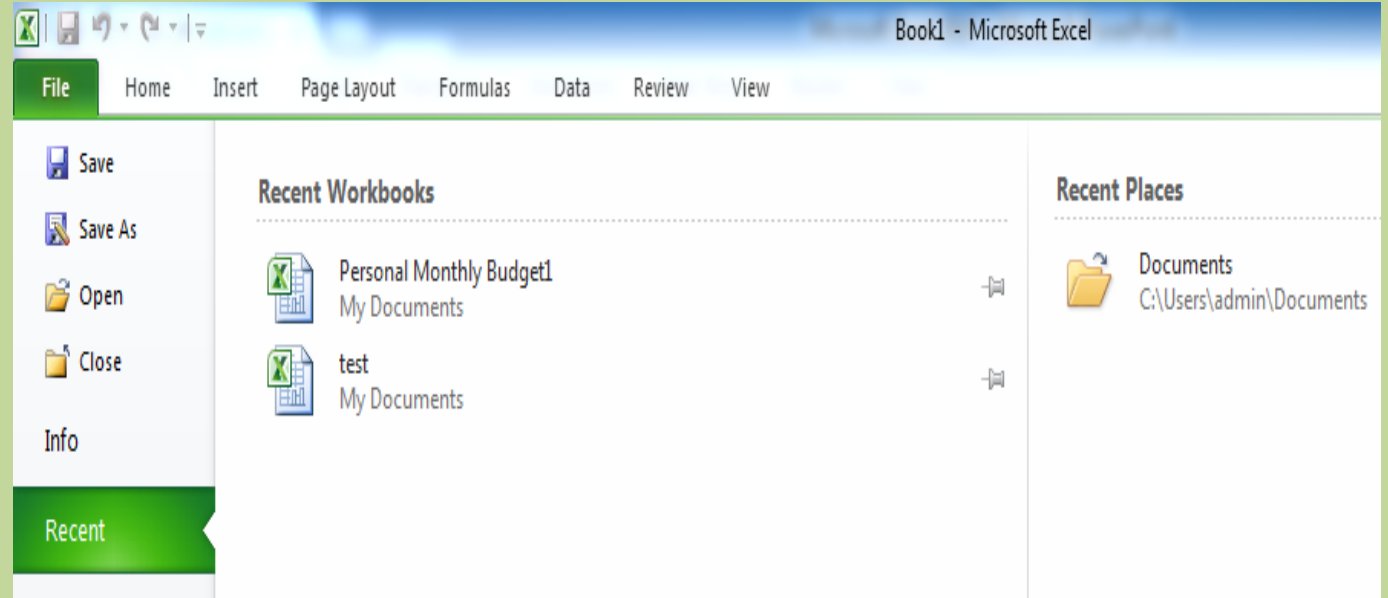
- We can enter data into only the active cell in a worksheet. First select a cell to input data.
- We can moving around the cells using,
  1. Mouse
  2. Arrow Keys
  3. Home Key
  4. Ctrl + Home key combination
  5. Page Up key
  6. Page Down key
  7. Tab key
  8. Shift + Tab
  9. Ctrl + Up Arrow
  10. Ctrl + Down Arrow
  11. Ctrl + Left Arrow
  12. Ctrl + Right Arrow
  13. Ctrl + End
  14. Enter Key
  15. Shift + Enter
  16. Using cell address or Name of a Cell Range

# Opening a Workbook

## 1<sup>st</sup> Method

1. click File
2. Click Open

Or click **Recent** to open last opened files



## 2<sup>nd</sup> Method

Ctrl + O

# Saving a Workbook

## 1<sup>st</sup> Method

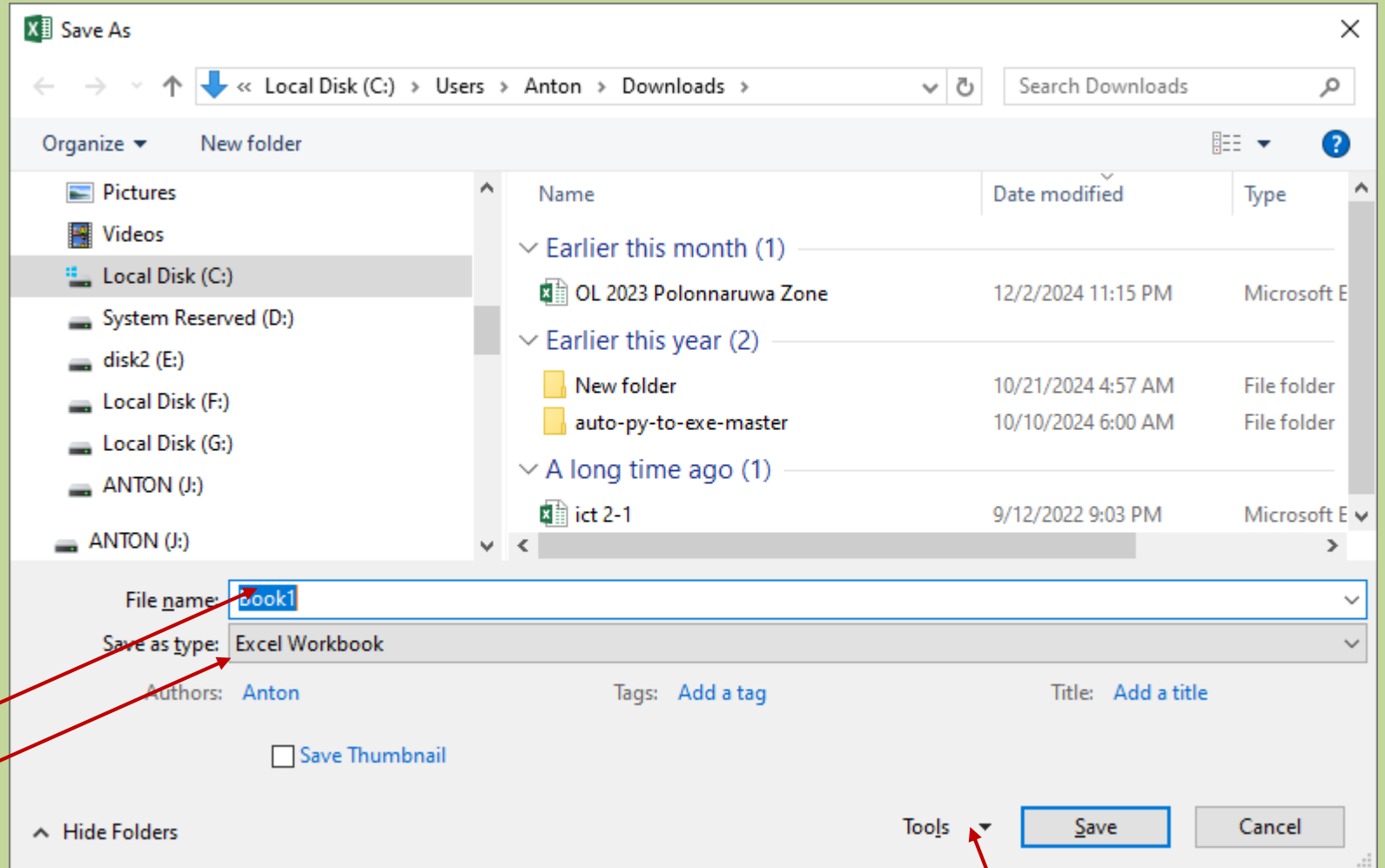
1. click File
2. Click **Save** or **Save As**

## 2<sup>nd</sup> Method

Ctrl + s

Type a new file name here

Change saving file Type  
File Types (.xlsx, .xltx, .csv)



Click here to give passwords  
(**General options**)

## Switching Between Workbooks

- View-> Switch Windows-> Select File
- Click the relevant button in the Task Bar

## Closing Worksheet

1. File -> Close
2. or Alt + "Spacebar" then "C"

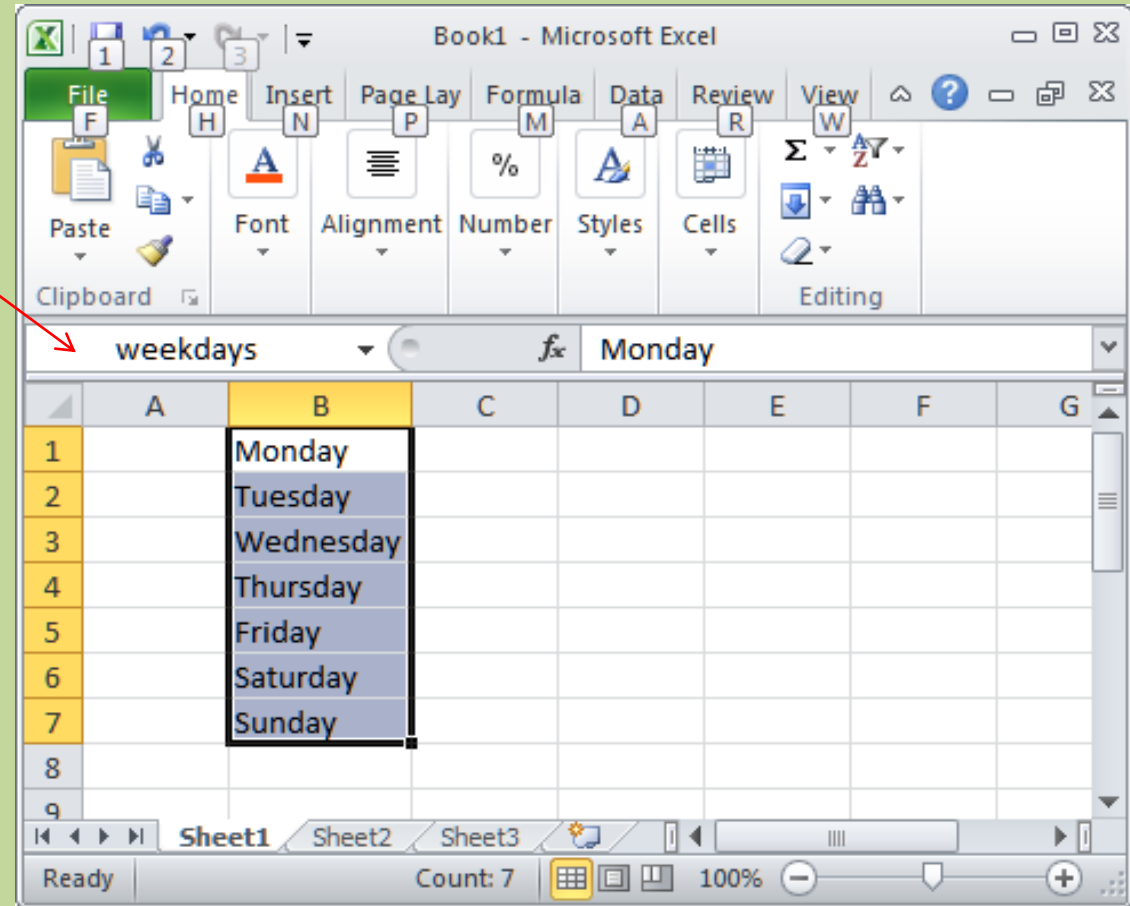
## Exit Workbooks

1. File -> Exit
2. or Alt + F4

# Cell Range and Naming Cell Range

1. Select the cell range or a cell
2. Type a <name> for the Range
3. Press Enter Key

1. What are the importance of naming cell Range?



# Entering data in the worksheet

- There are 3 types of Data
  1. Text (Labels)- Default as left aligned
  2. Numeric Values - Default as right aligned
  3. Formulas – Must start with “=” or “+”

Name Box

	A	B	C	D
1		Items	Price	
2		Soap	74.50	
3		Sugar	165.00	
4		Rice	790.00	
5		Total	1029.50	
6				

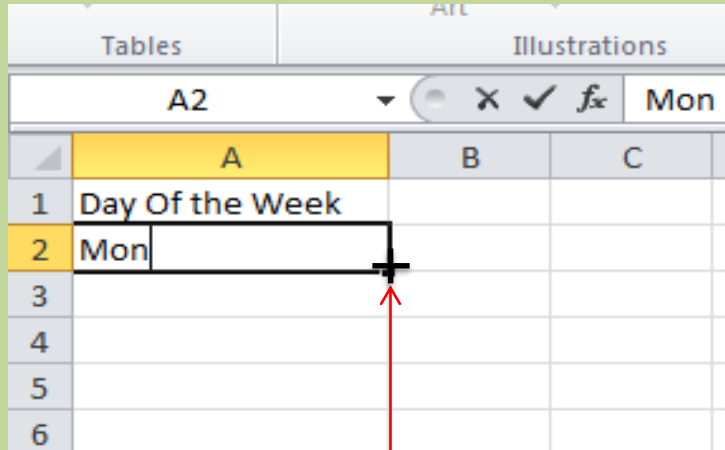
Formula Bar

## Confirming Entering Data

	A	B	C	D	E
1	Temperature				
2					
3					

Click Here or Press Enter Key

# Auto Fill & Fill Handle

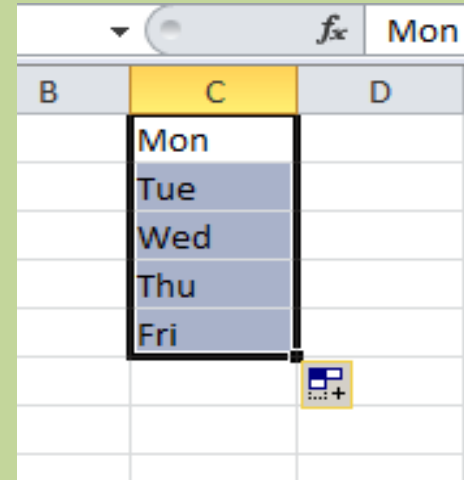


A screenshot of an Excel spreadsheet. The active cell is A2, containing the text 'Mon'. The cell above it, A1, contains the text 'Day Of the Week'. A black crosshair cursor, known as the fill handle, is positioned at the bottom-right corner of cell A2. A red arrow points upwards from the text 'Fill Handle' below the table to this cursor.

	A	B	C
1	Day Of the Week		
2	Mon		
3			
4			
5			
6			

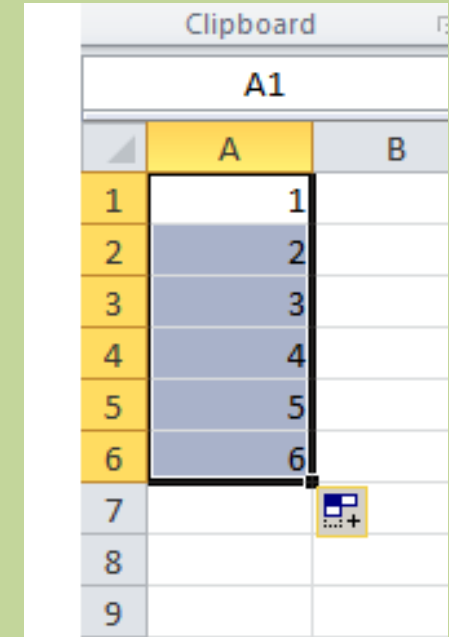
Fill Handle

- Drag the Fill Handle to Auto fill Data



A screenshot of an Excel spreadsheet showing a list of days of the week. The active cell is C1, containing 'Mon'. The cells below it, C2 through C5, contain 'Tue', 'Wed', 'Thu', and 'Fri' respectively. A black crosshair cursor is at the bottom-right corner of cell C5. A small blue icon with a plus sign is visible at the bottom-right corner of the selection.

B	C	D
	Mon	
	Tue	
	Wed	
	Thu	
	Fri	



A screenshot of an Excel spreadsheet showing a list of numbers. The active cell is A1, containing '1'. The cells below it, A2 through A6, contain '2', '3', '4', '5', and '6' respectively. A black crosshair cursor is at the bottom-right corner of cell A6. A small blue icon with a plus sign is visible at the bottom-right corner of the selection.

	A	B
1	1	
2	2	
3	3	
4	4	
5	5	
6	6	
7		
8		
9		

- We can use the Fill Handle to copy formula

# Columns, Rows and Cells Formatting

- Column Width and Row Height
  1. Select the cell Range
  2. Click Home Tab
  3. Click Format
- Insert Columns and Rows
  1. Click on the ROW/ROW number, Column Header
  2. Home Tab
  3. Click insert

# Columns, Rows and Cells Formatting

- **Wrap Text**

1. Select the cell Range
2. Click Home Tab
3. Click Format
4. Click Format cells
5. Select Alignment Tab
6. Tic on wrap text check box

- **Orientation**

1. Select the cell Range
2. Home → Format → Format Cells → Orientation

- **Merge and Centre**

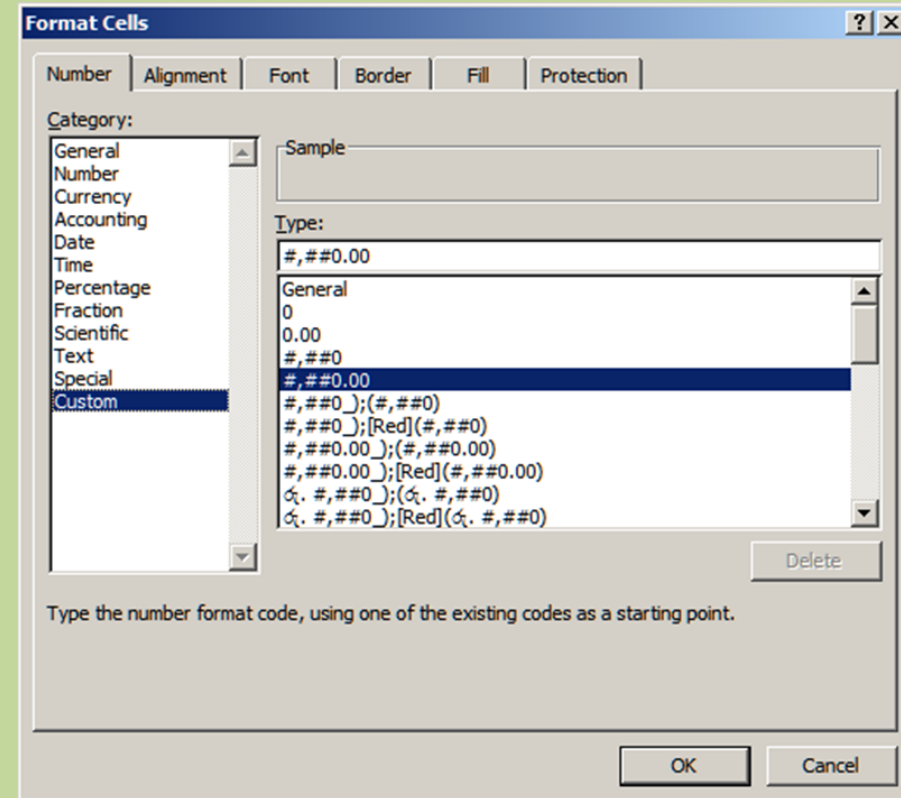
1. Select the cell Range
2. Home → Format → Format Cells → Merge Cells under the text control

- **Delete Columns, Rows and Cells**

1. Right click on row number of column Header
  2. Click delete
- Or select cell Range → Right Click on → Delete

# Data types in a cell in Excel worksheet

1. Select a Cell or Cell range
2. Click **Home** Tab
3. Click **Format** in **Cell**  
**Group**
4. Click **Format Cells**



# Operators

- Mathematical operators (ගණිත කර්ම භාවිතය)
- Conditional Operators (සංසන්ධනාත්මක කර්ම භාවිතය)

Mathematical
+
-
*
/
%
^
&

Conditional
=
>
<
>=
<=
<>

# Functions

- Sum
- Max
- Min
- Count
- Counta
- Countif
- If
- mod

## Using Formula

1. We can built formula

=A1+B1\*(C1/D1)-2\*a1+1

a1=9, b1=3, c1=55, d1=5

- A1=14, b1=7
- =if(a1>b1,a1-b1,b1-a1)

1. We can use built in functions as formula

=SUM(a1:a10)



# Cell Reference

There are three types of Cell References.

1. Relative
2. Absolute
3. Mix

# Functions

- SUM
- MAX
- MIN
- COUNT
- AVERAGE
- ଅତ୍ତର
  - IF
  - RANK

# දත්ත සම්පාදයක් (ගබඩාවක් ලෙස)

Students Details				
Male Femal ▼	Name of the Students ▼	Index No ▼	Tel No ▼	class ▼
M	G.M. Mahesh Anuradha	0879	0715555555	10 - A
F	K.M. Dilshari	0882	0774545456	11 - C
M	D.M. Chanuka	4458	0784561236	10 - A
F	K.M. Dilhani	0442	0764545456	11 - C
F	M.N. Nayomi	1212	0741236589	10 - A

# දත්ත විශ්ලේෂණය

Term Test								
Male Female	Name of the Students	Index No	ICT	Maths	Science	English	Total	Pass Fail
M	G.M. Mahesh Anuradha	0879	89	56	42	29		
F	K.M. Dilshari	0882	45	36	18	23		
M	D.M. Chanuka	4458	87	98	78	68		
F	K.M. Dilhani	0442	90	78	90	74		
F	M.N. Nayomi	1212	54	45	55	60		

charts