

Information Technology

NVEQ Level 1 – Class IX

IT105-NQ2012-Spreadsheet

Student's Handbook



A screenshot of a spreadsheet with a light green background. The data is organized into columns and rows. The values are as follows:

12993	11498.5	
0	3904.5	
136.621	129.580	
73%	74%	
136.621	129.580	
243,063,287	185,517,764	18
582,000,000	499,300,000	+E
41.76%	37.16%	
1.779	1.432	

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Student Details

Student Name: _____

Student Roll Number: _____

Batch Start Date: _____

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Preface

The National Curriculum Framework, 2005, recommends that children's life at school must be linked to their life outside the school. This principle makes a departure from the legacy of bookish learning which continues to shape our system and causes a gap between the school, home, community and the workplace.

The student workbook on “**Spreadsheet (Basic)**” is a part of the qualification package developed for the implementation of National Vocational Education Qualification Framework (NVEQF), an initiative of Ministry of Human Resource Development (MHRD), Government of India to set common principles and guidelines for a nationally recognized qualification system covering Schools, Vocational Education and Training Institutions, Technical Education Institutions, Colleges and Universities. It is envisaged that the NVEQF will promote transparency of qualifications, cross-sectoral learning, student-centred learning and facilitate learner's mobility between different qualifications, thus encouraging lifelong learning.

This student workbook, which forms a part of vocational qualification package for student's who have passed Class VIII or equivalent examination, was created by a group of experts. The IT-ITeS Skill Development Council approved by the National Skill Development Corporation (NSDC) for the IT/ITeS Industry developed the National Occupation Standards (NOS). The National Occupation Standards are a set of competency standards and guidelines endorsed by the representatives of IT Industry for recognizing and assessing skills and knowledge needed to perform effectively in the workplace.

The Pandit Sunderlal Sharma Central Institute of Vocational Education (PSSCIVE), a constituent of National Council of Educational Research and Training (NCERT) in association with Wadhvani Foundation has developed modular curricula and learning materials (Units) for the vocational qualification package in IT/ITes sector for NVEQ levels 1 to 4; level 1 is equivalent to Class IX. Based on NOS, occupation related core competencies (knowledge, skills, and abilities) were identified for development of curricula and learning modules (Units).

This student workbook attempts to discourage rote learning and to bring about necessary flexibility in offering of courses, necessary for breaking the sharp boundaries between different subject areas. The workbook attempts to enhance these endeavour by giving higher priority and space to opportunities for contemplation and wondering, discussion in small groups and activities requiring hands-on-experience. We hope these measures will take us

significantly further in the direction of a child-centred system of education outlined in the National Policy of Education (1986). The success of this effort depends on the steps that school Principals and Teachers will take to encourage children to reflect their own learning and to pursue imaginative and on-the-job activities and questions. Participation of learners in skill development exercises and inculcation of values and creativity is possible if we involve children as participants in learning, and not as receiver of information. These aims imply considerable change in school routines and mode of functioning. Flexibility in the daily time-table would be a necessity to maintain the rigour in implementing the activities and the required number of teaching days will have to be increased for teaching and training.

About Your Workbook

This workbook is to assist you with completing the Unit of Competency **IT105-NQ2012: Spreadsheet (Basic)**. You should work through the workbook in the classroom, at the workplace or in your own time under the guidance and supervision of your teacher or trainer.

This workbook contains sessions which will help you to acquire relevant knowledge and skills (soft and hard) on various aspects of the unit of competency. Each session is small enough to be easily tackled and digested by you before you move on to the next session. Animated pictures and photographs have been included to bring about visual appeal and to make the text lively and interactive for you. You can also try to create your own illustrations using your imagination or taking the help of your teacher. Let us now see what the sections in the sessions have for you.

Section 1: Introduction

This section introduces you to the topic of the Unit. It also tells you what you will learn through the various sessions covered in the Unit.

Section 2: Relevant Knowledge

This section provides you with the relevant information on the topic (s) covered in the session. The knowledge developed through this section will enable you to perform certain activities. You should read through the information to develop an understanding on the various aspects of the topic before you complete the exercise (s).

Section 3: Exercise

Each session has exercises, which you should complete on time. You will perform the activities in the classroom, at home or at the workplace. The activities included in this section will help you to develop necessary knowledge, skills and attitude that you need for becoming competent in performing the tasks at workplace. The activities should be done under the supervision of your teacher or trainer who will guide you in completing the tasks and also provide feedback to you for improving your performance. To achieve this, prepare a timetable in consultation with your teacher or trainer and strictly adhere to the stipulated norms or standards. Do not hesitate to ask your teacher or trainer to explain anything that you do not understand.

Section 4: Assessment

The review questions included in this section will help you to check your progress. You must be able to answer all the questions before you proceed to the next session.

At the end of the Unit, there is a list of learning resources which include books, journals, newsletters, websites, etc. to support your further learning.

SESSION 1: INTRODUCTION TO SPREADSHEETS

Have you seen your father or mother keep track of family expenditure in a diary? How do they keep track of the expenditure? Have you noticed how they calculate the total, categorise similar types of items, prioritize expenses and also track the changes in expenses from month to month. *A spreadsheet is an electronic document, very much like the way your parents maintain an expense sheet in a diary.*

RELEVANT KNOWLEDGE

The term spreadsheet was derived from a large piece of paper that accountants used for business finances. The accountant would spread information like costs, payments, taxes, income etc., out on a single, big, oversized sheet of paper to get a complete financial overview.

A spreadsheet provides much more flexibility, speed and accuracy, as compared to a manual expense sheet. It also has many features and functions built into it making it easy to use. For example, if you change one amount, the total is recalculated automatically. Spreadsheets are used for a variety of tasks, such as

- Maintaining records
- Analysing data
- Creating MIS (Management Information System) reports
- Generating graphs (for pictorial representation of data)
- Doing financial calculations
- Managing inventory
- Budgeting etc.

Some of the most popular spreadsheet software are:

- MS-Excel
- Open Office - Calc
- Google Documents

Getting started with Spreadsheet:

To start you can choose any of the above software to start creating a Spreadsheet. You may start learning to use Spreadsheet with either the Openoffice - Calc or Microsoft-Excel. Make sure that this software is already installed in your computer. You can start using MS-Excel software, by performing any one of the following steps:

- a) Double Click on a shortcut key of the MS-Excel icon, if available, on the desktop
- OR
- b) Click [1] Start → [2] All Programs → [3] Microsoft office → [4] Microsoft Office Excel

If you are using any other spreadsheet software, the steps to start it would be almost identical to what is given above.

Once you start the MS-Excel, the following screen would be displayed. The components of the screen displayed are shown in Figure 1.

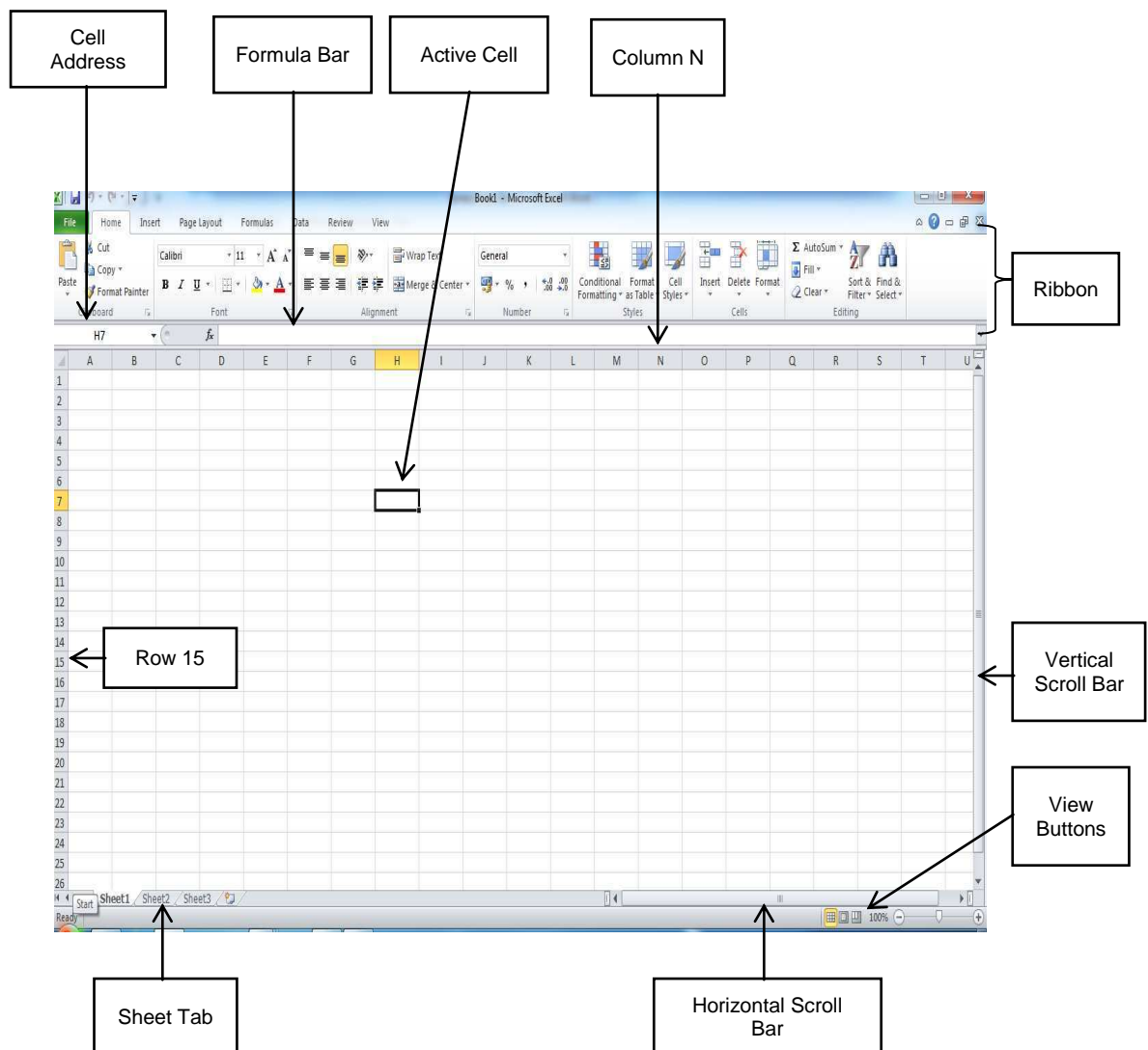


Figure 1: Components of a MS-Excel Spreadsheet

Some of the key components of a spreadsheet are:

- Worksheet: This is a grid of horizontal rows and vertical columns.
- Workbook: A workbook contains one or more worksheets.
- Figure 1 has three worksheets, each named *Sheet1*, *Sheet2* and *Sheet3*. The Sheet Tab is pointing to *Sheet2*. The current sheet shown in Figure 1 is *Sheet1*.
- Row: A row is a horizontal arrangement of cells. The rows are named by numbers (1, 2, 3, 4,...). In Figure 1 the arrow points to *Row 15*.
- Columns: A column is a vertical arrangement of cells. The columns are named by alphabets (A, B, C,, Y, Z, AA, AB, AC,, AZ, BA,). In Figure 1 the arrow points to *Column N*.
- Cell: A Cell is where the rows and columns intersect. Worksheet is also called an array of cells. A cell may contain text, number, date or a formula. A *cell* is the fundamental element of a worksheet. This is where numbers/text are entered. A *cell address* in a spreadsheet identifies location of the cell. It is a combination of column name and row number of the cell, such as A2 or B16 etc.

Note: When identifying a cell by its address, the column name is always listed first followed by row number.

- Active Cell: This is the cell on which the cursor is currently placed. It is outlined by a dark border. Data is always entered in the active cell. In Figure 1 the Active Cell is *H7*.
- Formula Bar: This is located below the Ribbon. It displays the contents of the active cell. It can also be used to enter and edit data.
- Scroll Bar: These helps to scroll through the content and body of the worksheet. There are two scroll bars - horizontal and vertical.

When an OpenOffice-Calc spreadsheet is opened, it looks like Figure 2 shown below. Notice that the look and feel of MS-Excel and OpenOffice-Cal spreadsheet is quite similar. Also observe differences in the icons on the Ribbons. Most of the spreadsheet software have similar functions and features, with minor differences in the way, the tabs, icons, dialogue boxes and functions are arranged. If you learn to use one, it is fairly easy to use any other similar software.

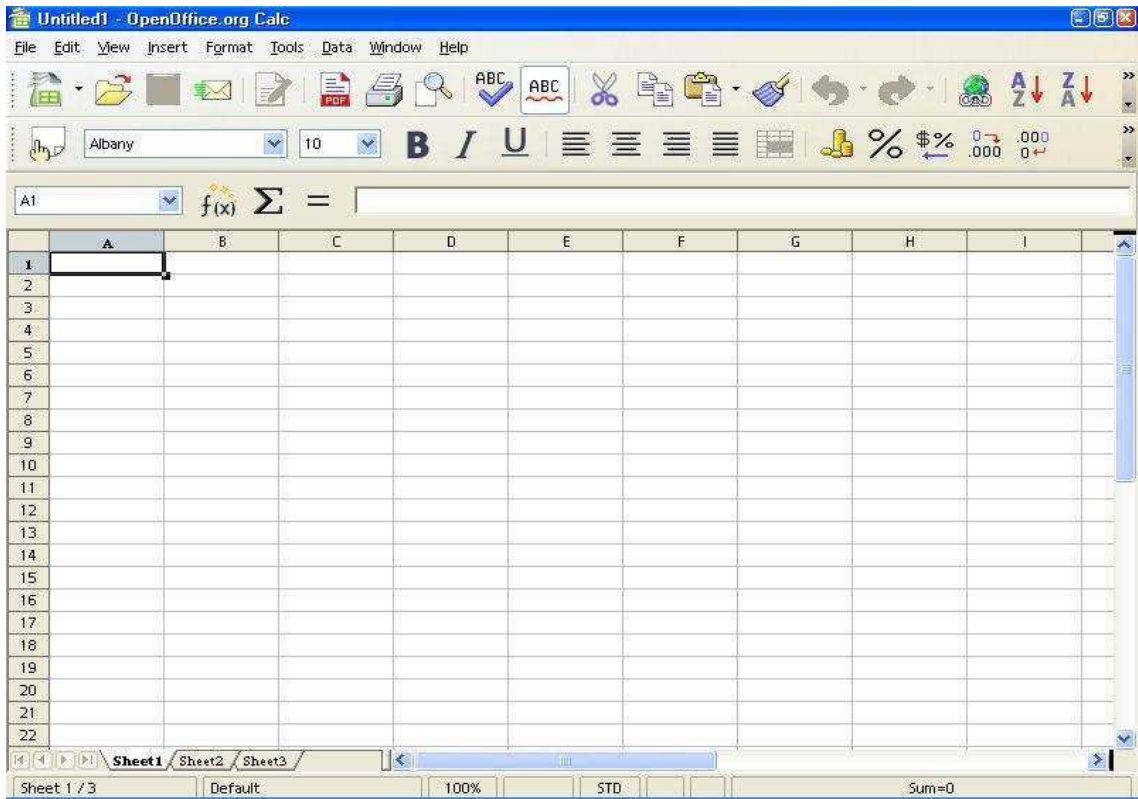


Figure 2: Components of an OpenOffice-Calc Spreadsheet

EXERCISE

Perform the following activities till you are confident:

S.No.	Activity
1.	Identify the key components of spreadsheet
2.	Open a spreadsheet

SESSION 2: OPEN, SAVE AND CLOSE SPREADSHEET

Let us start with understanding how to create a spreadsheet and save it for later use. To begin with, let us create a simple spreadsheet. Before creating the spreadsheet, create a folder “D:\IT Class IX\WP_Practice” where you shall store all the spreadsheets that you create.

RELEVANT KNOWLEDGE

a) **Open:** Start the spreadsheet as learnt in the previous exercise. When you create a spreadsheet, a default name is given by the software. MS-Excel names it *Book1*, whereas OpenOffice names it as *Untitled1*.

a. When a new spreadsheet is opened in MS-Excel, the sheet tab usually has three worksheets - Sheet1, Sheet2 and Sheet3.

b) Enter the data shown in Figure -3 in the spreadsheet.

a. To go to cell B2, move cursor to the cell and then left click the mouse. Now type the word *Hello World* and press *enter* key. You would notice that after pressing *enter*, automatically cell B3 becomes the active cell.

b. You can move to cell B4 by using *down arrow* key of keyboard and type 423 and press *enter*.

c. Similarly enter 15-Aug-1947 in cell B6.

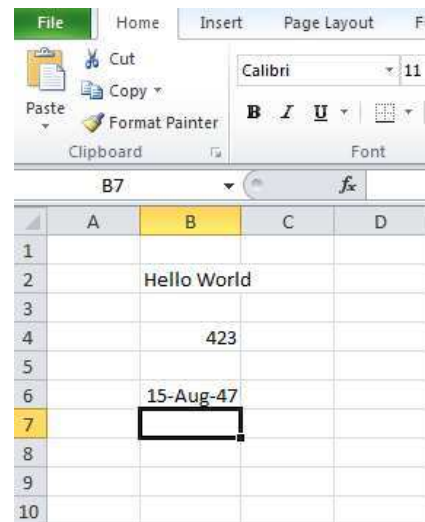


Figure -3: Entering Data

c) Save this workbook and give it the name *First*. To do so, the steps are the same as the ones you used for saving a document file in a MS-Word. To quickly review the steps again:

- In the *Quick Access* bar, click the symbol for the floppy 

OR

1. Click the [1] **File** → [2] **Save**.
2. A *Save As* dialog box appears.
3. Choose the Directory (Drive and Folder) by clicking on the one that you want in the list shown on the left hand side. You will see the path on the D:\IT Class IX\WP_Practice displayed as you select the path.

4. Enter the name which you would like to give to this document in the **File name** box. For example, you can give the name *First* to this file.
5. Click **Save**.
 - a. This workbook will be saved in MS-Excel with the name *First.xlsx*. The first part is the name given to this file and *.xlsx* is the extension name for any worksheet created under MS-Excel.
 - b. Similarly if you are using OpenOffice, the file will get saved with the name *First.ods*. OpenOffice gives an extension name of *.ods* to a spreadsheet file.
- d) **Close:** Now you can close this spreadsheet by following one of the sets of commands given below:
 - a. Click on the cross symbol “X”, that you see on the top right hand corner of the screen.OR
 - b. Click [1] *File* → [2] *Close*.
- e) **Open:** Now re-open the above spreadsheet; make some more changes to it. Write the names of your class mates in rows B7 to B12, and save it with a different name.
- f) **Save:** Having made further changes, you need to save the changes. You can save it with the same name *First.xlsx*, in which case the older file saved earlier will get overwritten by the changes which you made. Alternatively, you may like to keep the earlier file *First.xlsx* as it is, and save this modified spreadsheet using a new file name, e.g. *Second.xlsx*. To save it with the same name, just follow the steps explained earlier. To save it with a different name, use the following steps:
 - a. Click the [1] *File* → [2] *Save As*
 - b. A *Save As* dialog box appears. Choose the Directory (Drive and Folder) by clicking on the one that you want in the list shown on the left hand side. You will see the path on the D:\IT Class IX\WP_Practice displayed as you select the path.
 - c. Enter the file name which you would like to give to this document. For example, you may give the name *Second* to this file.
 - d. Click *Save*

Now this spreadsheet would be saved in MS-Excel with the name *Second.xlsx*.

g) **Close:** You can close this document by following one of the sets of commands given below:

- Click on the symbol of cross “X”, which you see on the top right hand corner of the screen
OR
- Click [1] *File* → [2] *Close*

EXERCISE

Perform the following activities till you are confident:

S.No.	Activity
1	Open a spreadsheet
2	Save a spreadsheet with an appropriate name
3	Close a spreadsheet

To practice concepts learnt, repeat the above steps by opening a new spreadsheet, write the names of 10 of your classmates with their roll numbers and save the sheet.

SESSION 3: ENTER DATA IN SPREADSHEET

Spreadsheets enable us to work with different kinds of data for organizing, calculating and presenting information. We will start by entering data in a spreadsheet.

RELEVANT KNOWLEDGE

Open a new spreadsheet and enter the data as shown in Figure.

	A	B	C	D	E	F	G
1							
2							
3		Name		Roll No.		Date of Birth	
4		Ravi Kaul		23		13-Aug-99	
5		Bijender Dalal		13		15-Jan-99	
6		Radha Swami		7		02-Jan-00	
7		Vikas Maheshwari		32		17-Nov-98	
8		Vimla Rani		14		23-Sep-99	
9		Sandhya Reddy		26		19-Dec-98	
10							

Figure 4: Different data types

Observe three different kinds of data you have entered in the above spreadsheet. These are:

- **Text:** The names of the students are treated as *Text* type of data.
- **Number:** The roll numbers are treated as *Number* type of data.
- **Date:** The date of birth is treated as *Date* type of data (notice the entry in the formula bar when a cell with a date entry is active).

There is another kind of data which you can enter, which is called *Formula*. You will learn about this a little later. You can also observe that *text* data is automatically aligned to the left in a cell, the *Number* data is aligned to right and the *Date* data is also right aligned.

Note: You can do calculations using a *Number*, *Date* and *Formula* type of data, but you cannot do calculations using *Text* data (also referred as alpha numeric data).

- Now save this workbook file by giving it a name and close it.

EXERCISE

Perform the following activities till you are confident:

S.No.	Activity
1	Make a list of five of your friends with their name, phone number and date of birth.
2	Save the spreadsheet with an appropriate name
3	Close the spreadsheet

Additional Practice Exercises:

1. Open the workbook. Click on the tab *Sheet2*. You would see that a blank *worksheet* appears on the screen. If you click again on tab for *Sheet1*, the data you had entered earlier would appear. Why? Because these are separate sheets in the same workbook; just like pages on your notebook.

SESSION 4: BASIC CALCULATIONS - ADDITION

A spreadsheet helps you do many mathematical calculations - e.g. addition.

RELEVANT KNOWLEDGE

Open a new spreadsheet and enter the data as shown in Figure 4.

	A	B	C	D	E	F	G	H
1								
2	S.No.	Name	English	Hindi	Maths	Science	Total	
3	1	Abhas	89	76	93	91	349	
4	2	Anita	92	82	98	91	363	
5	3	Raja	95	81	76	82	334	
6	4	Subbu	84	72	99	94	349	
7	5	Priya	94	93	100	97	384	
8	6	Gautam	78	89	69	72	308	
9								

Figure 4: Adding Marks

Now to total the marks of each of the students, do the following:

- Go to cell G3. In the cell G3 enter: $+c3+d3+e3+f3$ and press **Enter**.
 - The total marks of Abhas appear in cell G3.
 - In a similar way, we calculate the total marks of Anita.
- In cell G5 enter: $=sum(C5.F5)$ and then press **Enter**.
 - This is another way of entering a formula for addition, when the cells to be added are adjacent to each other. C5 is the address of the starting cell and F5 is the address of the last cell. C5.F5 is also called a *Range* of cells.
 - In a similar way, calculate the total marks of Subbu, Priya and Gautam.
 - You have totaled the marks by entering formula in two different ways. The cell does not display the formula, but it displays result of the calculation i.e. the total marks in the above example. When G7 is made the active cell, you will see formula displayed in *formula bar* (just below the Ribbon).

Now change marks of one of the students in one or more subjects. The total marks of that student will get calculated automatically. *Automatic calculation* of formulas is one of the most *powerful features* of electronic spreadsheets.

EXERCISE

Perform the following activities till you are confident:

S.No.	Activity
1	Create a list of all your personal expenses made during the month and calculate the total expenses
2	Create a list of names of the month and holidays in that month. Add and calculate the total number of holidays in a year.

Additional Practice Exercise

Design a mark sheet for a student as shown in figure below:

	A	B	C	D	E	F	G
1	Mark Sheet						
2	Roll-No						
3	Name						
4	Marks						Pass / Fail
5	Subject	Practical	Theory	Total	Maximum Marks	Percentage	
6	Math						
7	English						
8	Physics						
9	Chemistry						
10	Computer Sc						
11	Total Marks						
12	Total Percentage						
13	Remarks						

Mark Sheet

- a) Calculate percentage of marks in each subject.
- b) Calculate total marks and total percentage.
- c) Depending on the total percentage write the following in remarks
 - Excellent - 90% or more
 - Very Good - 80%-less than 90%,
 - Good - 70%- less than 80%,
 - Fair - 60%-less than 70%,
 - Poor - less than 60%
- d) Use cell style to show colored cells
- e) Use thick outline border
 - Use Font size, color and alignment for the text.

SESSION 5: BASIC CALCULATIONS - SUBTRACTION

RELEVANT KNOWLEDGE

Another math operation that can be done using the spreadsheet is subtraction.

	A	B	C	D	E	F	G	H
1								
2	S.No.	Name	English	Hindi	Maths	Science	Total	
3	1	Abhas	89	76	93	91	349	
4	2	Anita	92	82	98	91	363	
5	3	Raja	95	81	76	82	334	
6	4	Subbu	84	72	99	94	349	
7	5	Priya	94	93	100	97	384	
8	6	Gautam	78	89	69	72	308	
9								

Figure -5: Adding Marks

Open new spreadsheet and enter data as shown in Figure 6.

	A	B	C	D	E
1					
2		Month	Income	Expense	Saving
3		January	10,000	8,500	1,500
4		February	12,600	9,100	3,500
5		March	7,900	8,700	
6		April	10,600	10,000	
7		May	11,250	8,523	
8		June	12,900	14,200	
9					

Figure 6: Subtraction

Now to calculate savings in each month:

- Go to cell E3. Enter: $+C3-D3$ <Enter>. Note that as you are entering the formulae in the cell E3, the cells C3 and D3 automatically get highlighted. The savings for January will be displayed in cell E3. Now calculate savings for February.

You would observe that you have been entering formula one by one in each cell. In a spreadsheet, you can copy a formula entered in one cell to many other cells, where you need to do exactly the same calculation. This feature of a spreadsheet is called *copying formula*. To do so:

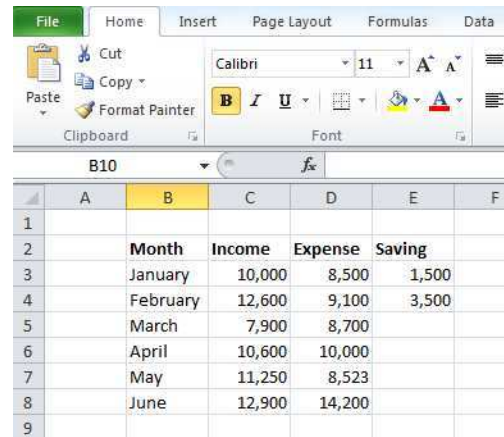


Figure 7: Copy - Paste

- Go to cell E3.
- While in the *Home Tab*, click on the icon for *Copy*.
- Go to cell E5 and click on the icon for *Paste*.
- The formula gets automatically pasted in the cell E5. You can also observe in the *Formula Bar* that the address of the cells referred to in the formula automatically changes when *Copy - Paste* function is used.

Now *Copy* the formula in other cells for calculating savings for April, May and June.

There is an alternate and easier way to paste formula: *Copy - Click and Drag - Paste*. The method of *Copy-Paste* formula which you just learnt can become very time consuming, if the same formula has to be pasted in large number of cells, say one hundred cells. Spreadsheet has a faster way of *Pasting* the formula that you have copied.

In the same worksheet add six more *records* for the months July to December. Enter data for Income and Expense. The spreadsheet will look like Figure -8.

	A	B	C	D	E
1					
2		Month	Income	Expense	Saving
3		January	10,000	8,500	1,500
4		February	12,600	9,100	3,500
5		March	7,900	8,700	-800
6		April	10,600	10,000	600
7		May	11,250	8,523	2,727
8		June	12,900	14,200	-1,300
9		July	12,500	10,200	
10		August	13,000	11,500	
11		September	14,000	12,100	
12		October	11,200	12,500	
13		November	11,100	11,300	
14		December	11,900	11,400	
15					

Figure -8: Subtraction

- Do the following steps:
 - Take cursor to cell E8. *Copy* formula, as you did earlier. You will see that the box around cell E8 starts blinking.
 - Observe that the blinking box in cell E8 has a small dark rectangle in the bottom right hand corner.
 - Take the cursor over this rectangle. The cursor will take the shape of +. Now click the left button of your mouse and drag the cursor with your mouse, while keeping the left button pressed, and *drag* the cursor up to cell E14. Now release the left button. You will see that the formula has been automatically pasted to the entire range specified.

	A	B	C	D	E
1					
2		Month	Income	Expense	Saving
3		January	10,000	8,500	1,500
4		February	12,600	9,100	3,500
5		March	7,900	8,700	-800
6		April	10,600	10,000	600
7		May	11,250	8,523	2,727
8		June	12,900	14,200	-1,300
9		July	12,500	10,200	
10		August	13,000	11,500	
11		September	14,000	12,100	
12		October	11,200	12,500	
13		November	11,100	11,300	
14		December	11,900	11,400	
15					

Figure-9: Drag and Copy

EXERCISE

Perform the following activities till you are confident:

S.No.	Activity
1	In the above worksheet calculate the total savings across the twelve months and display the result in cell E15.

SESSION 6: BASIC CALCULATIONS - MULTIPLICATION

RELEVANT KNOWLEDGE

Another math function that is frequently used is multiplication and in this

	A	B	C	D	E	F	G	H
1								
2	S.No.	Name	English	Hindi	Maths	Science	Total	
3	1	Abhas	89	76	93	91	349	
4	2	Anita	92	82	98	91	363	
5	3	Raja	95	81	76	82	334	
6	4	Subbu	84	72	99	94	349	
7	5	Priya	94	93	100	97	384	
8	6	Gautam	78	89	69	72	308	
9								

Figure 11: Adding Marks							
8	6	A006	Geometry Box	75.00	4	300.00	
9	7	A007	Set of 6 sketch pens	26.00	0	0.00	
10	8	A008	Fountain Pen	125.00	3	375.00	
11	9	A009	Ball point pen	7.00	14	98.00	
12	10	A010	Staplers	52.00	1	52.00	
13							
14	Total Sale Value						1048.75
15							

Figure 12: Multiplication

exercise you will learn to multiply in a spreadsheet. Create the spreadsheet shown in Figure.

- You will need to use the *Multiplication* function here. It is used in the same way as addition and subtraction.
 - The formula for calculating amount is: Unit Price * No. of Units Sold
 - To calculate the amount in cell G3, enter: $+E3*F3$ <Enter>
 - Use the *Copy - Paste* command to enter formula in all the other cells.
- Calculate the Total Sale Value in cell G14.
- Cells B14 to F14 have been merged and the contents centered.
- Note that Unit price and Amount has values displayed up to 2 decimal places.

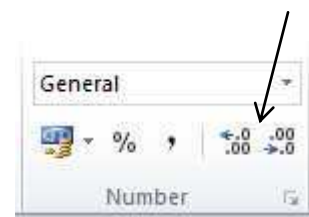


Figure -10: Adjusting Decimal places

Hint: You can do this by using the *Increase Decimal and Decrease Decimal* under the *Home* tab, in the Number group. You can see them in Figure -10.

EXERCISE

Perform the following activities till you are confident:

S.No.	Activity
1	Change any of the numbers in the above spreadsheet and see how the amounts change automatically

SESSION 7: BASIC CALCULATIONS DIVISION

RELEVANT KNOWLEDGE

Another basic mathematical function is Division. In this exercise you will learn

	A	B	C	D	E	F	G	H
1								
2	S.No.	Name	English	Hindi	Maths	Science	Total	
3	1	Abhas	89	76	93	91	349	
4	2	Anita	92	82	98	91	363	
5	3	Raja	95	81	76	82	334	
6	4	Subbu	84	72	99	94	349	
7	5	Priya	94	93	100	97	384	
8	6	Gautam	78	89	69	72	308	
9								

Figure -11: Adding Marks

7	4	Kailash Sankar Iyer	84	72	99	94	349	81%
8	5	Bijender Dalal	94	93	100	97	384	96%
9	6	Geentanjali Sharma	78	89	69	72	308	77%
10								

Figure -12: Division

how to divide using spreadsheets. Open the spreadsheet created as *marks.xlsx* and calculate the percentage of marks obtained by each student. The final spreadsheet should look as shown in Figure -12.

- You will need to use the *Division* function here. It is used in the same way as addition, subtraction and multiplication.
 - The formula for calculating %age of marks is: $(\text{Total Marks}) / (4 * 100)$
 - To apply the %age symbol, use the % button under the *Home* tab, in the Number group, as shown in Figure -13.

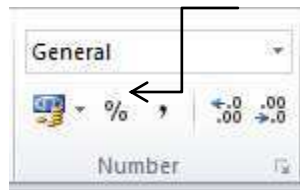


Figure -13: Percent icon

EXERCISE

Perform the following activities till you are confident:

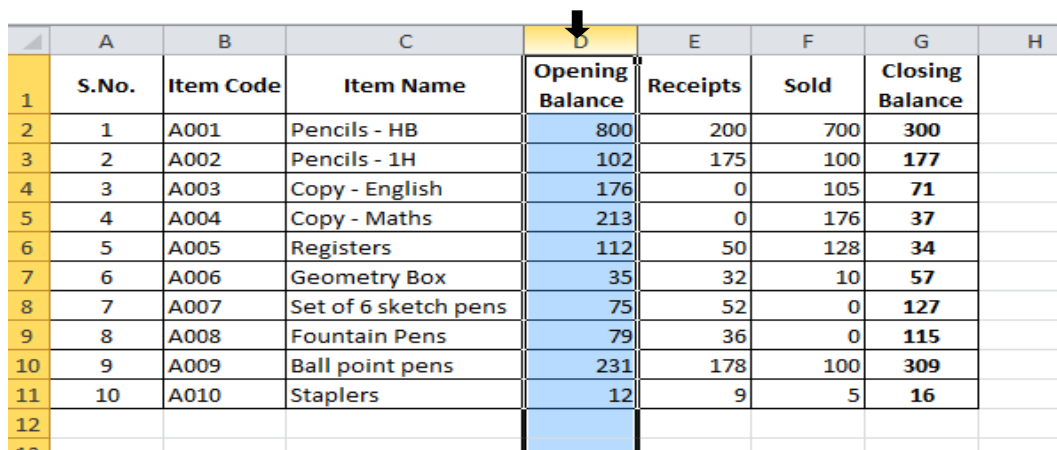
S.No.	Activity
1	Change any of the numbers in the above spreadsheet and see how the marks change automatically

SESSION 8: INSERT COLUMN AND ROW

RELEVANT KNOWLEDGE

Using a spreadsheet, you can modify a worksheet or report created earlier. While working on a spreadsheet you may realize that you need to insert some information between two columns. Now do you re-create the sheet all over again? In this exercise, you will use the same stock register saved as *StockRegister.xlsx* and learn the solution to such a problem. You will add a column which has the Unit Value of each item, after column C.

- a) Inserting a Column: You will add a column which has the Unit Value of each item, after column C in Figure -25.
- o Position the cursor near the Column D, as shown in Figure -14, the cursor changes into an arrow shape. Click the left button of your mouse. The entire column gets selected.



	A	B	C	D	E	F	G	H
1	S.No.	Item Code	Item Name	Opening Balance	Receipts	Sold	Closing Balance	
2	1	A001	Pencils - HB	800	200	700	300	
3	2	A002	Pencils - 1H	102	175	100	177	
4	3	A003	Copy - English	176	0	105	71	
5	4	A004	Copy - Maths	213	0	176	37	
6	5	A005	Registers	112	50	128	34	
7	6	A006	Geometry Box	35	32	10	57	
8	7	A007	Set of 6 sketch pens	75	52	0	127	
9	8	A008	Fountain Pens	79	36	0	115	
10	9	A009	Ball point pens	231	178	100	309	
11	10	A010	Staplers	12	9	5	16	
12								

Figure -14: Insert Column

- o Click the Right Button of your mouse. A menu box appears. Select the Insert option (Figure 15).
- o A blank column is inserted in this place. There is a ripple movement of data, i.e. the contents of Column D move rightwards into Column E and so on.
- o This is called *inserting a column*.
- o You can now enter data in this column and update the worksheet.

Note: The cell addresses in formulas have changed automatically.

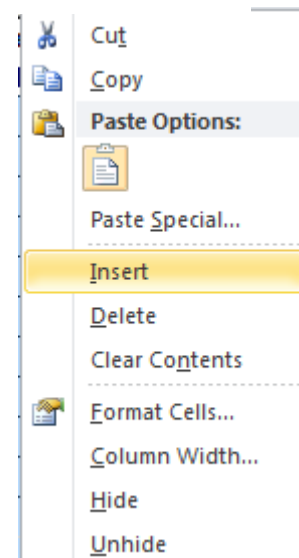


Figure 15: Short Cut Menu

b) Inserting a Row: Similarly a row can be inserted in a spreadsheet. Position the cursor on the Row number on the left hand side, where you want to insert a row. The whole row gets highlighted. Right click and insert a row!

- Add one more item in this spreadsheet by adding a row at row number 8.
- The spreadsheet will now look like the figure given below


	A	B	C	D	E	F	G	H
1	S.No.	Item Code	Item Name		Opening Balance	Receipts	Sold	Closing Balance
2	1	A001	Pencils - HB		800	200	700	300
3	2	A002	Pencils - 1H		102	175	100	177
4	3	A003	Copy - English		176	0	105	71
5	4	A004	Copy - Maths		213	0	176	37
6	5	A005	Registers		112	50	128	34
7	6	A006	Geometry Box		35	32	10	57
8								
9	 7	A007	Set of 6 sketch pens		75	52	0	127
10	8	A008	Fountain Pens		79	36	0	115
11	9	A009	Ball point pens		231	178	100	309
12	10	A010	Staplers		12	9	5	16
13								

Figure -16: Insert a Row

EXERCISE

Perform the following activities till you are confident:

S.No.	Activity
1	Practice by inserting more rows and columns in the spreadsheet above

SESSION 9: FORMAT CELL AND ITS CONTENTS

RELEVANT KNOWLEDGE

Just as in a list that you create on paper or a report you may read, the

	A	B	C	D	E	F	G	H
1								
2	S.No.	Name	English	Hindi	Maths	Science	Total	
3	1	Abhas	89	76	93	91	349	
4	2	Anita	92	82	98	91	363	
5	3	Raja	95	81	76	82	334	
6	4	Subbu	84	72	99	94	349	
7	5	Priya	94	93	100	97	384	
8	6	Gautam	78	89	69	72	308	
9								

Figure 20: Adding Marks

information in a spreadsheet can be made more readable by formatting (bolding, shading, etc.) a cell and its contents.

Open a new spreadsheet. Create the spreadsheet as given in Figure 21. It shows a partial list of items in a stationery shop. It shows the opening balance and closing balance for a month.

	A	B	C	D	E	F
1	S.No.	Item Code	Item Name	Opening Balance	Closing Balance	
2	1	A001	Pencils - HB	800		
3	2	A002	Pencils - 1H	102		
4	3	A003	Copy - English	176		
5	4	A004	Copy - Maths	213		
6	5	A005	Registers	112		
7	6	A006	Geometry Bo	35		
8	7	A007	Set of 6 sketc	75		
9	8	A008	Fountain Pen	79		
10	9	A009	Ball point per	231		
11	10	A010	Staplers	12		

Figure 21: Items in a stationery shop

We will now change the appearance i.e. format the data as shown in Figure 17.

	A	B	C	D	E	F
1	S.No.	Item Code	Item Name	Opening Balance	Closing Balance	
2	1	A001	Pencils - HB	800		
3	2	A002	Pencils - 1H	102		
4	3	A003	Copy - English	176		
5	4	A004	Copy - Maths	213		
6	5	A005	Registers	112		
7	6	A006	Geometry Box	35		
8	7	A007	Set of 6 sketch pens	75		
9	8	A008	Fountain Pens	79		
10	9	A009	Ball point pens	231		
11	10	A010	Staplers	12		
12						
13						

Figure 17: Formatted Spreadsheet

Notice that the above sheet has some additional effects to format it. What are adjustments and settings which have been done in the *formatted spreadsheet*? These are:

- a) Wrap Text: The text in row number 1 in Figure does not completely fit in the cell, as the cell width is smaller than the length of the text.
- Go to cell A1 and press the left button of the mouse and drag the mouse till cell E1 and release the left button. You will see that the cells A1 to E1 have been selected.

Note: When a cell entry overlaps into adjacent cells and there is no entry there, the contents are visible. However, the moment an entry is made in the adjacent cell, the text gets truncated, i.e. It is there on the sheet but not visible. An alternate is to automatically make text appear on multiple lines in a cell. This means that you can format the cell so that the text wraps automatically using the *Wrap Text* function.

- Click on *Home* tab, and then *Wrap Text* in the *Alignment* group as shown in Figure -1822.

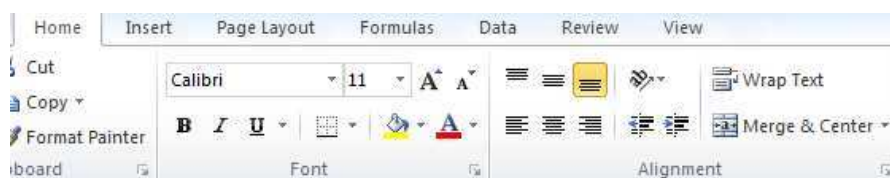


Figure -18: Alignment Group

- b) Change Font:

You have learnt to use **Bold**, *italics* and Underline in a word processor. The same functions are found in a spreadsheet too. The text in row number is **Bold**.

- Go to cell A1 and press the left button of the mouse and drag the mouse till cell E1 and release the left button. You will see that the cells A1 to E1 have been selected.

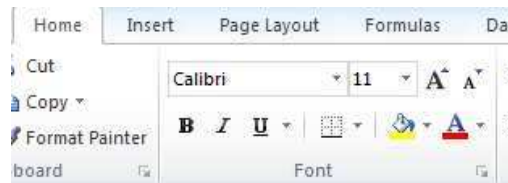


Figure -19: Font Group

- Now press the icon **B** under the *Home* tab.
- The contents of the selected cells will change to **Bold** font.

Similarly you can change the contents of any cell or a group of cells by selecting them and using the appropriate icon, **B**, *I* or U.

- c) Change Column Width: The text in column number C in Figure does not fit into the width of the column. The width of the column C can be increase to ensure that the entire text entered is visible.

	A	B	C	D	E	F
				Opening Balance	Closing Balance	
1	S.No.	Item Code	Item Name			
2	1	A001	Pencils - HB	800		
3	2	A002	Pencils - 1H	102		
4	3	A003	Copy - English	176		
5	4	A004	Copy - Maths	213		
6	5	A005	Registers	112		

Figure -20: Change Column width

- Take the cursor to the column numbers on top. Position it on the line between Column C and D, (refer adjacent figure). The shape of the cursor changes to a +symbol.
 - Click the left button of the mouse and with the left button pressed, drag the + symbol to the right. You will notice that the width of the column starts increasing. Once you have the desired width, release the left button of the mouse.
- d) Cell Content Alignment: The numbers in Cells A2 to A11 are right aligned in that they are center aligned. To achieve this effect, do the following:
- Go to cell A2. Press the left button of the mouse, keeping it pressed, drag the mouse till cell A11 and then release the left button. You will see that the cells A2 to A11 have been selected.

- Under the *Home* tab, in the Alignment group, click the symbol for *Center alignment* as shown in Figure 21.

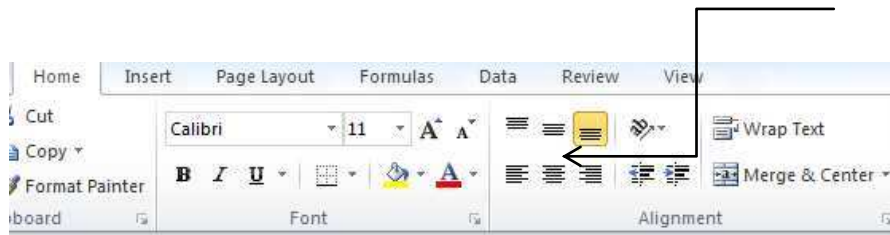


Figure 21: Alignment Group

- To align position of the contents of a cell, you need to select that cell or the group of cells and then click on the appropriate symbol for *Left*, *Center* or *Right* alignment of text.
- e) Create a Border: The data in Figure 27 has *Borders* around each cell. To achieve this effect, do the following:

- *Select* cells A1 to E11. Under the *Home* tab, in the Font group, click on *down arrow* next to the icon for borders, as shown by the arrow in Figure -22. A list of types of borders appears.
- From this list select the option for All Borders. You will observe that each of selected cells get a border.

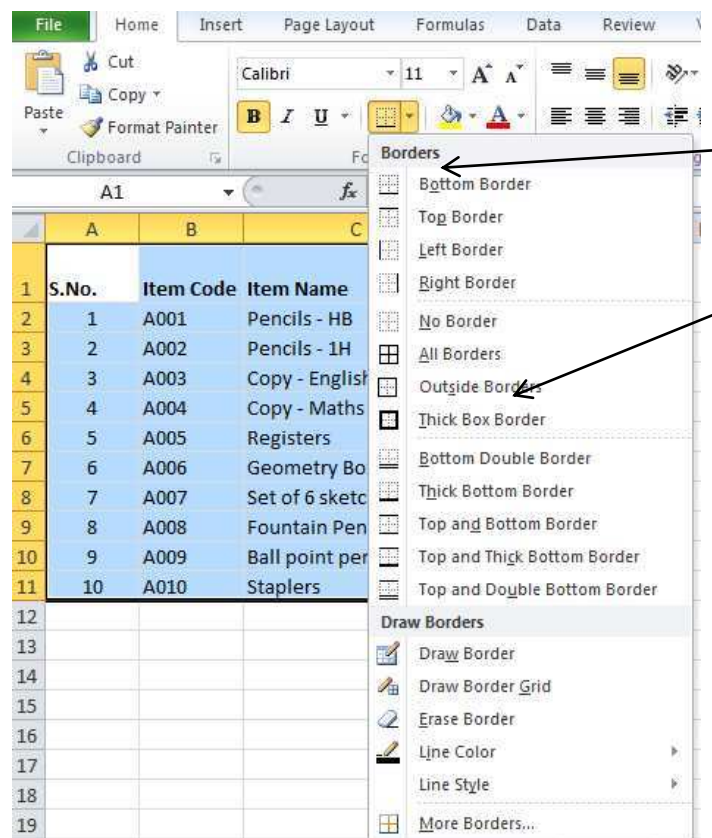


Figure -22: Adding Borders

EXERCISE

Perform the following activities till you are confident:

S.No.	Activity
1	Open a new spreadsheet. Create the spreadsheet given in Figure 28

	A	B	C	D	E	F	G	H	I	
1										
2		Marks in Half Yearly Exam								
3		S.No.	Name	English	Hindi	Maths	Science	Total		
4		1	<i>Abhas Kumar</i>	89	76	93	91	349		
5		2	<i>Anita Goel</i>	92	82	98	91	363		
6		3	<i>Rajshekhar Reddy</i>	95	81	76	82	334		
7		4	<i>Kailash Sankar Iyer</i>	84	72	99	94	349		
8		5	<i>Bijender Dalal</i>	94	93	100	97	384		
9		6	<i>Geentanjali Sharma</i>	78	89	69	72	308		
10										

Figure 23: Formatted Cells

- Note the following:
 - Marks are displayed center aligned.
 - Total marks are in Bold Font
 - Names of the students are in italics.
 - Contents in row 2 are in Bold and Italics. They are also center aligned.
 - Cells B1 to H2 have been merged and center aligned.

Hint: For merging the cells and center aligning the contents of the merged cell, use *Merge & Center* shown in Figure -24.



Figure -24: Merge & Center cells

- Save the spreadsheet with the name *Marks*.

SESSION 10: STOCK REGISTER

RELEVANT KNOWLEDGE

A common usage of a spreadsheet is to maintain lists of items along with quantities. A stock register is a good example of the same. You will create a simple stock register, which is used to keep track of number of units of different items kept in a shop or a store. Create the sample shown in Figure 30.

	A	B	C	D	E	F	G	H
1	S.No.	Item Code	Item Name	Opening Balance	Receipts	Sold	Closing Balance	
2	1	A001	Pencils - HB	800	200	700	300	
3	2	A002	Pencils - 1H	102	175	100	177	
4	3	A003	Copy - English	176	0	105	71	
5	4	A004	Copy - Maths	213	0	176	37	
6	5	A005	Registers	112	50	128	34	
7	6	A006	Geometry Box	35	32	10	57	
8	7	A007	Set of 6 sketch pens	75	52	0	127	
9	8	A008	Fountain Pens	79	36	0	115	
10	9	A009	Ball point pens	231	178	100	309	
11	10	A010	Staplers	12	9	5	16	
12								

Figure -25: Stock Register

- The formula for closing balance is: $\text{Opening Balance} + \text{Receipts} - \text{Sold}$
 - Enter the formula in cell G2, using a combination of *Addition* and *Subtraction*.
 - Use *Copy - Paste* to paste the formulas in all the cells.
 - Format the cells as shown in the sample.
 - Change the name of the sheet to Stock.
 - Save the File as *StockRegister.xlsx*.

EXERCISE

Perform the following activities till you are confident:

S.No.	Activity
1	Prepare a stock register of the grocery items purchased at your home
	Create the spreadsheet as given below:

	A	B	C
1	Item	Quantity	Price per Unit
2	<i>Student Chairs</i>	123	2050
3	<i>Student Tables</i>	93	1890
4	<i>Stools</i>	196	985
5	<i>Teacher Chairs</i>	35	2600
6	<i>Teacher Tables</i>	45	4300
7	<i>Computer Tables</i>	211	6300

- a) Calculate the total amount for each item (Quantity* Price per unit) and also the total amount for all items.
- b) Apply appropriate formatting to currency entries (Rs.) and numbers.
- c) Adjust the column widths where needed. Insert blank rows between column labels and data.
- d) Use alignments, fonts, borders and colors to format the “Furniture Details” worksheet. For example, put a border around the title, change the color of column headings to red and center all the entries in Column B.
- e) Create a header that includes your name and a footer that includes current date. Change page orientation to Landscape.
- f) Preview and print the worksheet.

SESSION 11: CUSTOMIZING THE INTERFACE

RELEVANT KNOWLEDGE

An interface is provided by the software vendor. There is a limited amount of customization possible. In this exercise, you will learn to customize the Quick Access Toolbar at upper-left corner of the screen. The Quick Access Toolbar is shown in Figure 26.

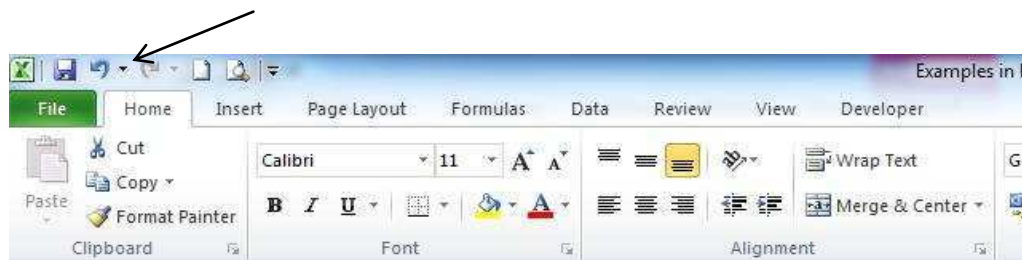


Figure 26: Quick Access Toolbar

Note: The Ribbon, which is part of the user interface, is designed to help you quickly find the commands that you need to complete a task. Commands are organized in logical groups that are collected together under tabs. Because each tab relates to a type of activity, such as writing or laying out a page, it is not possible to customize the Ribbon without using XML and programming code.

Things you can't do

- Add to or rearrange the commands on the Ribbon.
- Change or remove a command or group on the Ribbon.
- Add tabs to the Ribbon, unless you use programming code.
- Change the font or font size used on the Ribbon

Things you can do

- Minimize the Ribbon to make more space available on your screen.
- Move the Quick Access Toolbar to position it below or above the Ribbon.
- Customize the Quick Access Toolbar to add buttons that represent the commands that you frequently use.

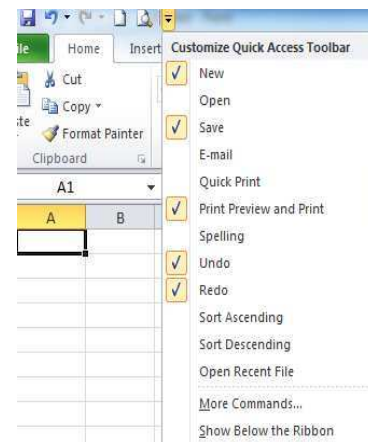


Figure 27: Customising Quick Access Toolbar

On the right side of the Office Button, there is the Quick Access Toolbar, as shown in Figure 32. Like a

normal toolbar, the Quick Access displays some buttons. You can right-click the Quick Access toolbar. A menu would appear, as shown in Figure 32. If you want to hide the Quick Access toolbar, you can right-click it and click Remove Quick Access Toolbar. To know what a button is used for, you can position the mouse on it. A tool tip would appear. Once you identify the button you want, you can click it

Adding a Button to the Quick Access Toolbar

By default, the Quick Access toolbar is equipped with three buttons: Save, Undo, and Redo. If you want to add more buttons or more options, you can right-click the Quick Access toolbar and click Customize Quick Access Toolbar. This would display the Excel Options dialog box shown in Figure 28.

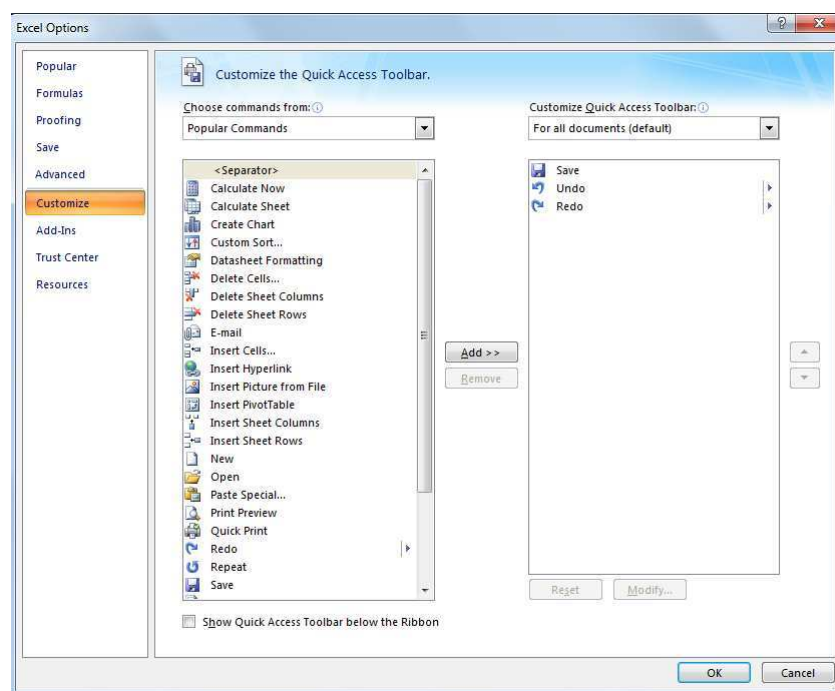


Figure 28: Adding a Button to Quick Access Toolbar

To add a button to the Quick Access toolbar, on the left list of Add, click an option and click Add. After making the selections, click OK

To remove a button from the Quick Access toolbar, right-click it on the Quick Access toolbar and click Remove From Quick Access Toolbar

The Quick Access Button

On the right side of the Quick Access toolbar, there is the Customize button with a down-pointing arrow. If you click or right-click this button, a menu would appear

The role of this button is to manage some aspects of the top section of Microsoft Excel, such as deciding what buttons to display on the Quick Access toolbar. For example, instead of using the Customize Quick Access Toolbar menu item as you used previously, you can click an option from that menu and its corresponding button would be added to the Quick Access toolbar. If the options on the menu are not enough, you can click either Customize Quick Access Toolbar or More Commands... This would open the Excel Options dialog box.

EXERCISE

Perform the following activities till you are confident:

S.No.	Activity
1.	Minimize the Ribbon to make more space available on your screen
2.	Move the Quick Access Toolbar to position it below or above the Ribbon.
3.	Customize the Quick Access Toolbar to add buttons that represent the commands that you frequently use

SESSION 12: USE CURRENCY SYMBOLS

RELEVANT KNOWLEDGE

When spreadsheets are used in accounting, we often need to show money and cash balances using currency symbols. Create the spreadsheet shown in Figure 29.

	A	B	C	D	E	F
1						
2		S.No.	Item Name	Unit	Price	
3		1	Sugar	Kg	40	
4		2	Rice	Kg	35	
5		3	Ghee	Kg	165	
6		4	Mustard Oil	Litre	60	
7		5	Butter	100 Gm	24	
8						

Figure 29

The price given in this sample spreadsheet does not indicate whether it is in Dollars or Rupees or in Euros. If you want to display numbers as amounts, you need to format the numbers as currency. To do this, apply the Currency format to the cells. A currency symbol can be inserted in two ways. These are:

1. Use the Accounting Number Format button

The currency formatting option is available within the *Accounting Number Format* button under the *Home* tab, in the *Number* group.

- Select Cell E1.
- Click on the *down arrow* next to the Accounting Number Format button (refer Figure 30).
- A list appears showing some of the popular currency symbols. Select *Rs.* Option.
- The amount 40 would be displayed as shown in Figure 315.
- Repeat this procedure for other cells containing the price.

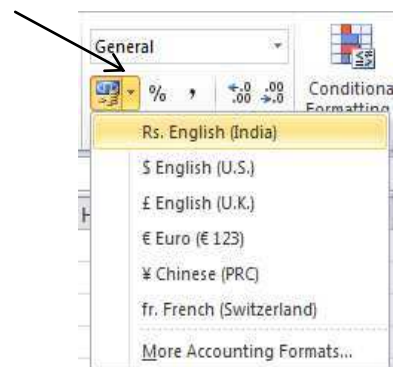


Figure 30: Accounting number format button

	B	C	D	E
	S.No.	Item Name	Unit	Price
	1	Sugar	Kg	Rs. 40.00
	2	Rice	Kg	35
	3	Ghee	Kg	165
	4	Mustard Oil	Litre	60
	5	Butter	100 Gm	24

Figure 31

2. Use the right click

- Select the Cell in which currency symbol is to be applied
- Right click the mouse. A short cut menu as shown in Figure 36 appears.
- Click on the option Format Cells. A *Format Cells* dialogue box as shown in Figure 32 appears.
- From the Category list provided, choose *Currency*.
- Now click on the down arrow on the Symbol box .Available currency symbols are displayed. Choose the desired symbol. This symbol will get displayed in the cell.
-

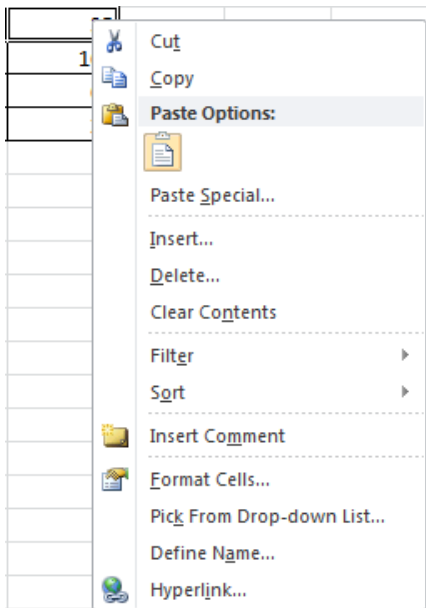


Figure 36: Short cut menu

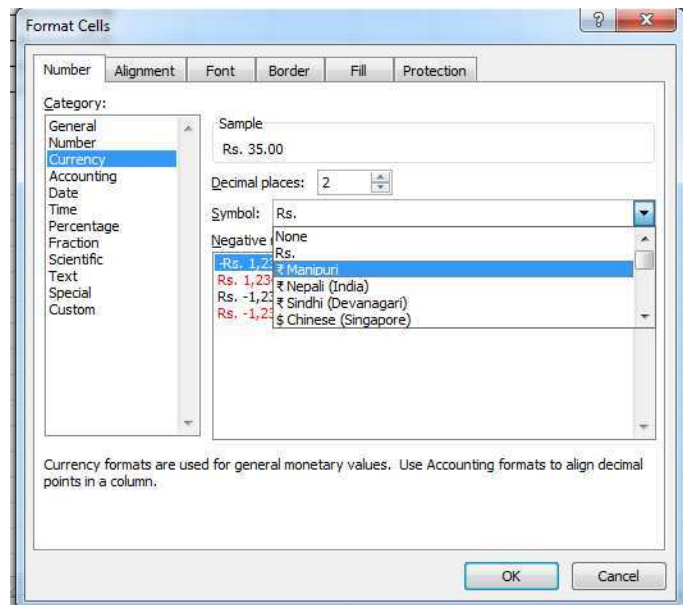


Figure 32: Dialogue box

EXERCISE

Perform the following activities till you are confident:

S.No.	Activity
1	Create a spreadsheet with the quantity and price of items purchased at your home

SESSION 13: FORMAT CELL CONTENTS - FONT STYLE AND SIZE

RELEVANT KNOWLEDGE

We have already learnt to apply some formatting options. In this exercise we will learn some more formatting options.

Create the spreadsheet given in Figure 33.

You can change the font (style of writing), for a cell or a group of cells. You will learn to do it in two ways, in this exercise.

1: Using the Icons on the Ribbon

- On the Home tab, in the Font group, click on the down arrow on the Font box (refer Figure 33). A list with various font options appears as shown in Figure 34.
- Select *Arial* font. You would observe the font (style) of the text in cell C2 changes (refer Figure 35).
- Now go ahead and follow the same steps for changing the font style of others cells, to what is written in the text. The spreadsheet will appear as in Figure 36.

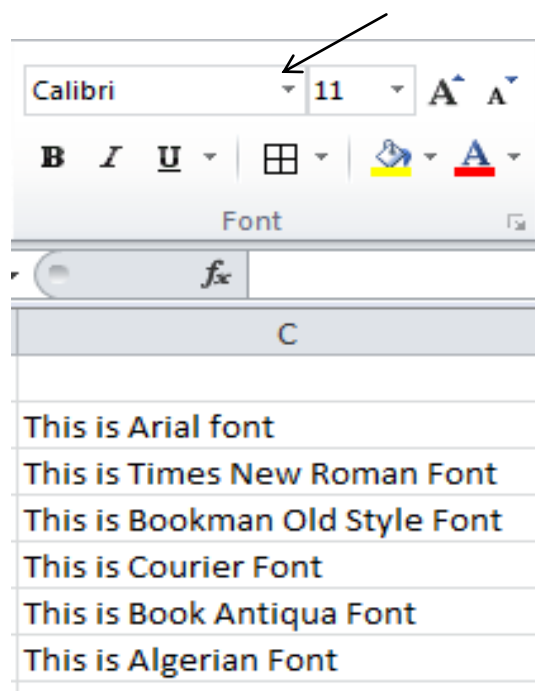


Figure 33

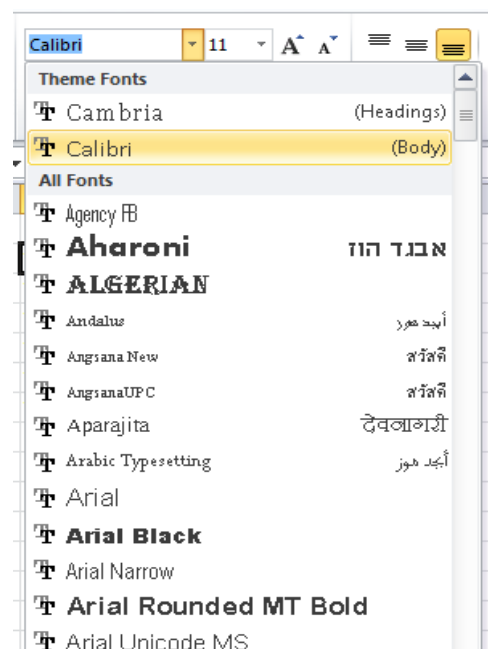


Figure 34

C
This is Arial font
This is Times New Roman Font
This is Bookman Old Style Font
This is Courier Font
This is Book Antiqua Font
This is Algerian Font

Figure 35: Arial Font in Line-1

C
This is Arial font
This is Times New Roman Font
This is Bookman Old Style Font
This is Courier Font
This is Book Antiqua Font
THIS IS ALGERIAN FONT

Figure 36: Different Fonts

2: Use Short cut menu and the dialog box

- We will restart with Figure 35
- Position the cursor in cell C2 and right click the mouse button. Short cut menu shown in Figure 37 will appear.
- Click on *Format Cells....* A Format Cells dialogue box appears with the Number tab selected by default.
- Click on the *Font* tab (refer Figure 38).
- Choose the font *Arial*. If needed, use the scroll bar.
- Repeat this for changing the font of text in all the other cells.

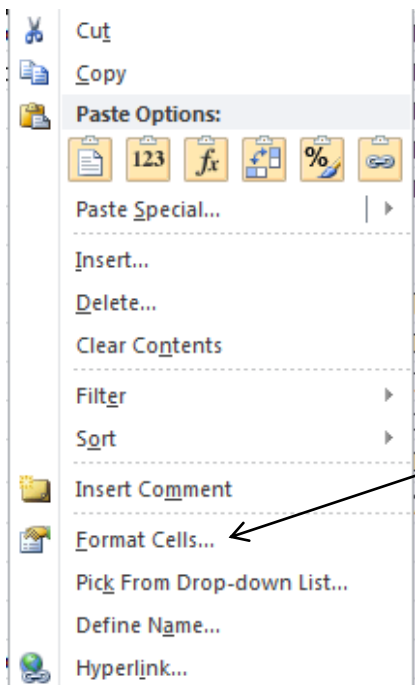


Figure 37: Short Cut Menu
You have learnt how to change

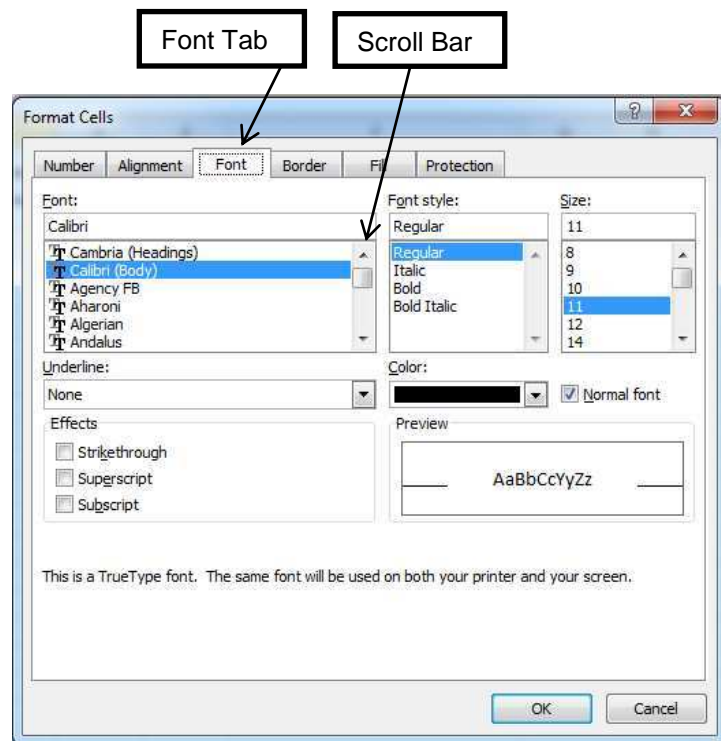


Figure 38: Format Cell Dialogue Box

cells. In a similar way it is possible to change *font size* of contents of a cell.

Create the spreadsheet as shown in Figure 40. Then change *font size* of the contents of the individual cells, as shown in Figure 39.

C
This is font size 8
This is font size 9
This is font size 10
This is font size 11
This is font size 12
This is font size 13
This is font size 14

Figure 40

C
This is font size 8
This is font size 9
This is font size 10
This is font size 11
This is font size 12
This is font size 13
This is font size 14

Figure 39: Different Font Sizes

- The steps to do this are similar to what you followed for changing *font style*
- The only difference is that now you need to use the option of changing *font size*, instead of the *font style*

EXERCISE

Perform the following activities till you are confident:

S.No.	Activity
1.	Create any spreadsheet. Now change both the font style and font size of the contents of the individual cells.

SESSION 14: DELETE - COLUMNS AND ROWS

RELEVANT KNOWLEDGE

You had learnt to insert a row and a column in an existing spreadsheet. In a similar way, you can delete any row or column in a spreadsheet.

- Select the row or the column to be deleted.
- Right click the mouse. A short cut menu as shown in Figure 41 appears.
- Choose the option Ddelete. The selected row or column will be deleted. (Note: The data contained in that row or column will also get deleted.)

1. Select the row / column / cell / cells that you want to delete.
2. On the *Home* tab, in the *Cells* group, click on the arrow next to *Delete*.
3. You will see the options as shown in adjacent figure.

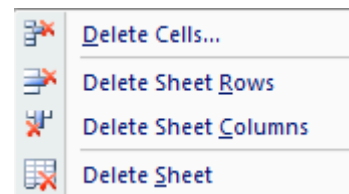


Figure 41: Short Cut Menu

4. Select Ddelete Cells... to delete selected cells.
 5. Select *Delete Sheet R*ows to delete the selected row.
 6. Select *Delete Sheet C*olumns to delete the selected column.
- Create a spreadsheet as shown in Figure 42.

	A	B	C	D	E
1	S.No.	Name	Roll No.	Date of Birth	
2	1	Ravi Kaul	23	13-Aug-99	
3	2	Bijender Dalal	13	15-Jan-99	
4	3	Radha Swami	7	02-Jan-00	
5	4	Vikas Maheshwari	32	17-Nov-98	
6	5	Vimla Rani	14	23-Sep-99	
7	6	Sandhya Reddy	26	19-Dec-98	
8					

Figure 42

- Delete the column containing the Roll No.
- Delete the row containing the record of Vikas Maheshwari.
- Once you have done this, the spreadsheet would look like as shown in Figure 438.

	A	B	C	D
1	S.No.	Name	Date of Birth	
2	1	Ravi Kaul	13-Aug-99	
3	2	Bijender Dalal	15-Jan-99	
4	3	Radha Swami	02-Jan-00	
5	5	Vimla Rani	23-Sep-99	
6	6	Sandhya Reddy	19-Dec-98	
7				

Figure 43

EXERCISE

Perform the following activities till you are confident:

S.No.	Activity
1.	Create a spreadsheet. Select two adjacent rows together and delete them. Now select two adjacent columns together and delete them.
2.	Create a spreadsheet. Insert three columns together in this spreadsheet. Now insert four rows together in this spreadsheet.

SESSION 15: SPELL CHECK

RELEVANT KNOWLEDGE

Like a word processor, you can check spelling mistakes in a spreadsheet. Create a spreadsheet as shown in Figure 44. This spreadsheet has some spelling errors. Make sure that the text you enter has the same or more mistakes.

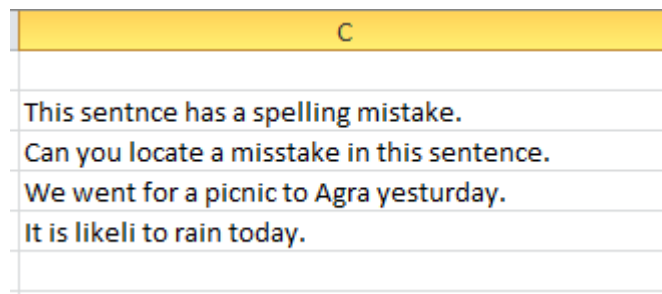


Figure 44: Spreadsheet with spelling errors

- Select the *Review* tab. In the *Review* tab there is an option for *Spelling*, as shown in Figure 50.

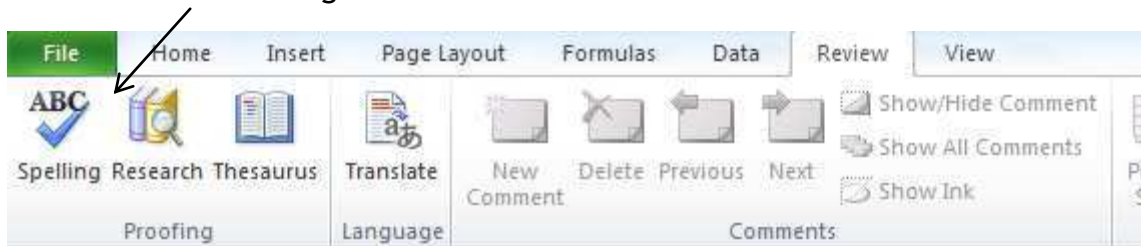


Figure 50: Review Tab

- Click on this option and the spreadsheet software will start checking the spellings. If it finds a spelling mistake, it will show the *Spelling: English* dialogue box, as in Figure 45.
- You can accept the suggestion by clicking on the *Change* option.
- Or, you can type in the correct spelling in the box on top in this dialogue box.
 - Once you have corrected this mistake, it will continue checking the rest of the worksheet.

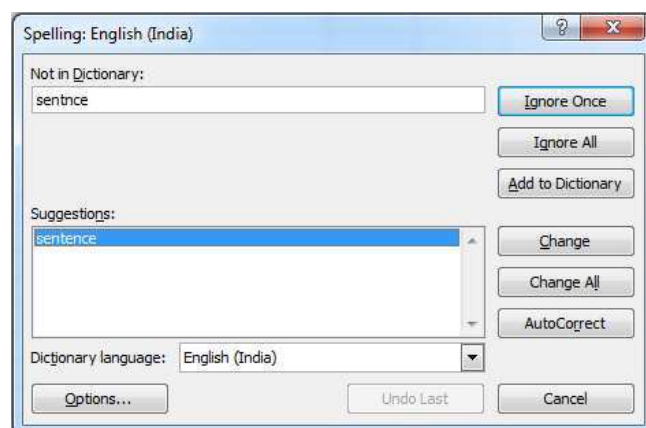


Figure 45: Spelling Dialogue Box

SESSION 16: BORDER THE CELLS

RELEVANT KNOWLEDGE

Under the *Home* tab, there is an option of applying borders to the cells, as shown in Figure 462

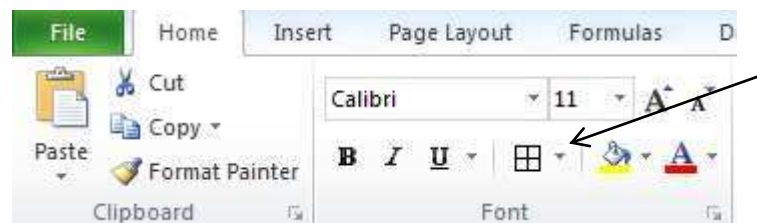


Figure 46: Icon for Border

- If you click on the down arrow, as shown above, a further list of options for borders appears, as shown in Figure 473.
- To apply the borders to a particular cell of a group of cells, first select those cells and then apply the border, using this option.
- Create a spreadsheet as shown in Figure 484.
- Use formulas to calculate quarterly totals and profit.

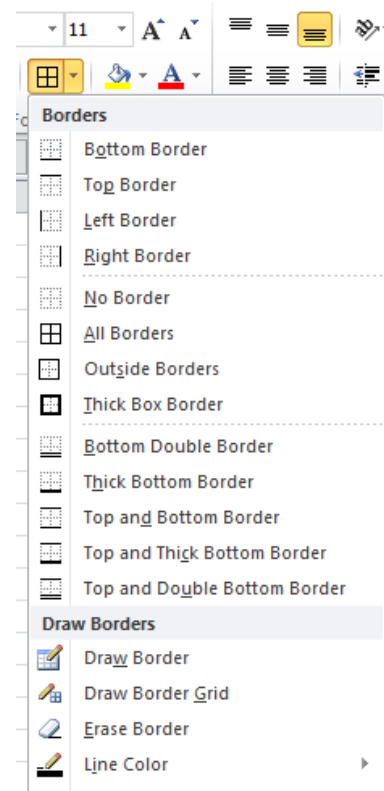


Figure 47: Different options for Borders

	A	B	C	D	E	F	G	H	I
1		Quarter-1			Quarter-2				
2		Apr	May	Jun	Q1	Jul	Aug	Sep	Q2
3	Income	1000	1500	1600	4100	1300	1700	1800	4800
4	Expenses	800	1200	1250	3250	1150	1230	1300	3680
5	Profit	200	300	350	850	150	470	500	1120
6									

Figure 48: Spreadsheet with Borders

Use another method to border the cells, as given below:

- Select the cell of the group of cells (*Range*), on which you want to apply the *Border*.
- Right Click. A short cut menu appears, as shown in Figure 495.
- Choose the option *Format Cells...*
- Choose the tab for *Border* in Figure 5056.
- Select the appropriate border which you want to apply.

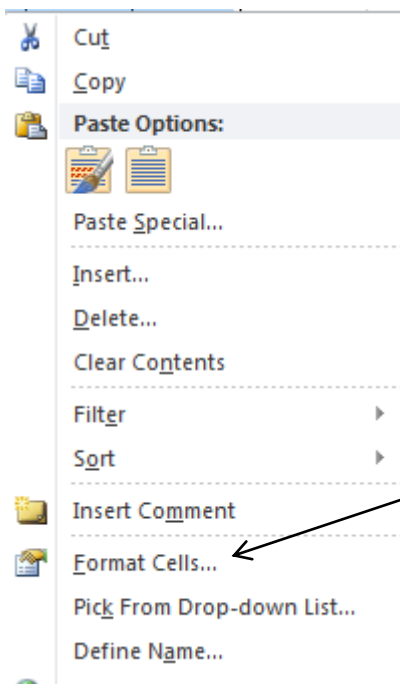


Figure 49: Short Cut Menu

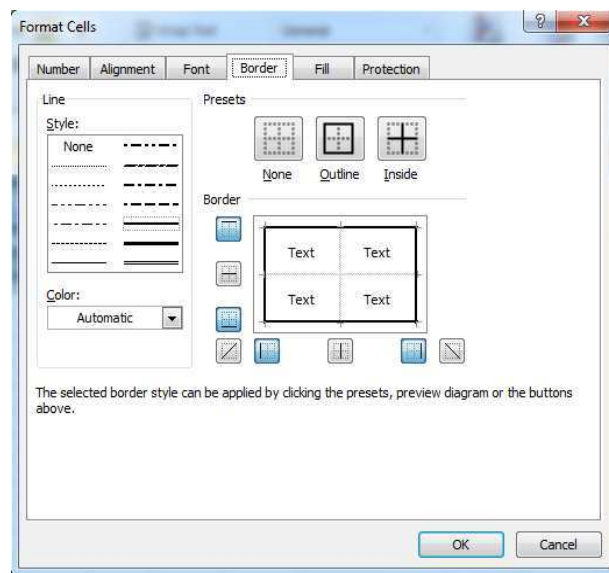


Figure 50: Dialogue Box for Border

SESSION 17: COLOUR THE CELLS

RELEVANT KNOWLEDGE

The method for *Coloring* cells is similar to that for bordering the cells. Under the *Home* tab, in the *Font* group, there is an option of applying *Colour* to the cells, as shown in 57.

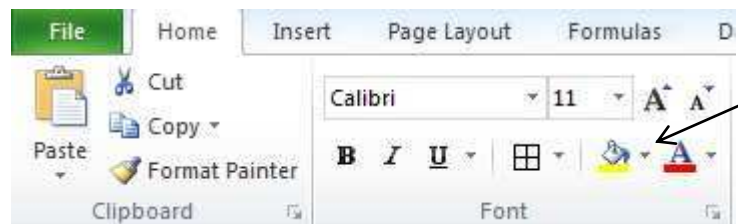


Figure 51: Icon for applying Colour

- Use the same spreadsheet which you created for bordering the cells.
 - Use the *Colour* option and apply grey colour to some of the cells, so that it looks like the spreadsheet in Figure 528.

	A	B	C	D	E	F	G	H	I
1		Quarter-1				Quarter-2			
2		Apr	May	Jun	Q1	Jul	Aug	Sep	Q2
3	Income	1000	1500	1600	4100	1300	1700	1800	4800
4	Expenses	800	1200	1250	3250	1150	1230	1300	3680
5	Profit	200	300	350	850	150	470	500	1120

Figure 52: Some cells with Colour (Different shades of grey)

- You can now use other colors also, to further improve the appearance of the spreadsheet.

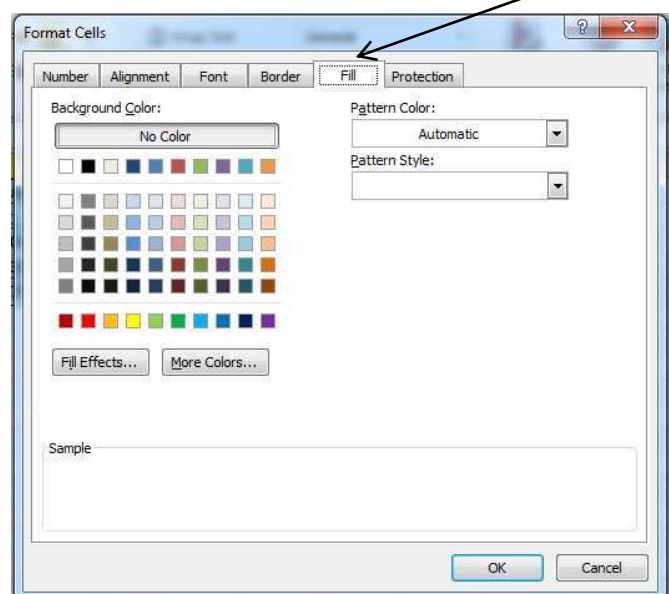


Figure 53

SESSION 18: MANAGING WORKSHEETS IN A WORKBOOK

RELEVANT KNOWLEDGE

When you open a new workbook, it has three *worksheets* as shown in Figure 540. The default names given to them is; *Sheet1*, *Sheet2*, and *Sheet3*. Each of these worksheets can have data entered in them. When you save the workbook in a file, the complete workbook with all the sheets in it get saved.

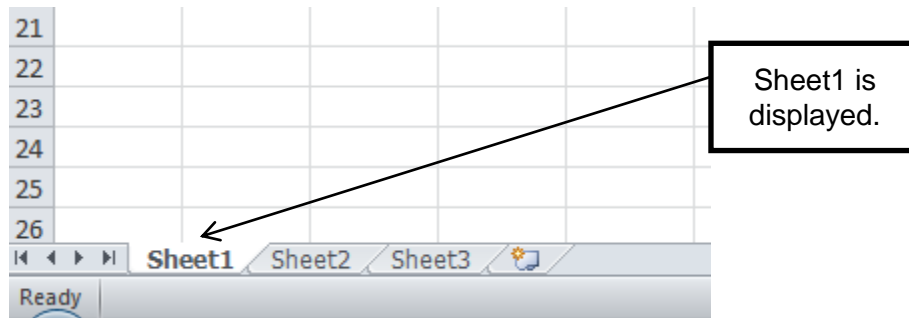


Figure 54: Workbook with three worksheets

- If you click on *Sheet2* tab, it gets displayed, as shown in Figure 551.

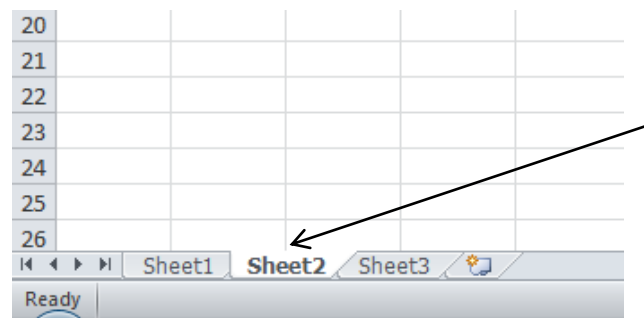


Figure 55: Sheet2 displayed

Renaming a worksheet:

You can change the name of the worksheet, to give it a meaningful name. For example if the name of *Sheet2* is changed to *Attendance*, and name of *Sheet3* is changed to *Marks*, it is more meaningful.

- If you double click on the *Sheet* tab, it becomes dark. Now you can type in the new name. (Note: single click makes the sheet active and double click for renaming).

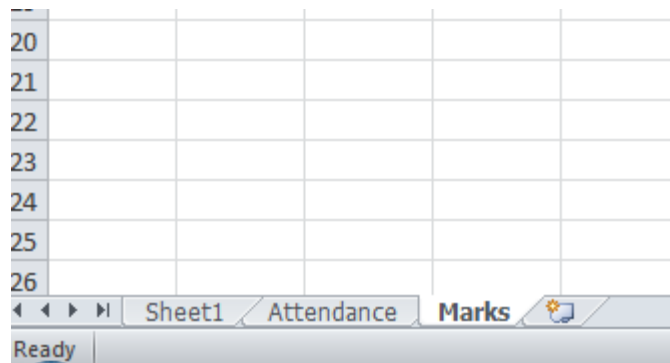


Figure 56: Renamed Worksheets

Add a worksheet:

You can add more worksheets in a workbook. Click the symbol, as shown in Figure 573. It adds one sheet. Each time you click it, one sheet gets added.

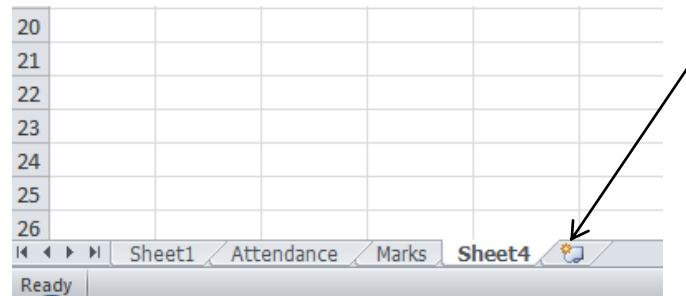


Figure 57: Icon for Worksheet addition

Remove a worksheet:

You can delete (remove) any worksheet from a workbook. Select the worksheet to be deleted by right-click on its name. A short-cut menu pops up. Select the *Delete* option. In the workbook, *Sheet1* has been deleted by following these steps, as shown in Figure 584.

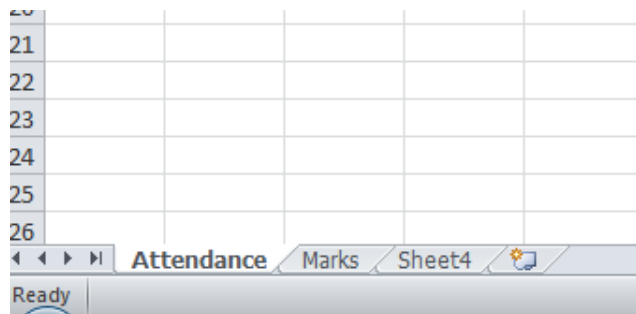


Figure 58: Workbook after Sheet1 is removed

EXERCISE

Perform the following activities till you are confident:

S.No.	Activity
1.	Rename a worksheet.
2.	Add a worksheet
3.	Remove a worksheet

SESSION 19: PRINT A WORKSHEET

RELEVANT KNOWLEDGE

The method for printing a worksheet is almost similar to the one you used for printing a document in a word processor.

1: Print a worksheet - with default settings

Open any of the workbooks created by you in the earlier exercises.

1. Select the [1] **File** → [2] **Print**
2. The worksheet will be printed. Do make sure that you have a printer connected to your computer.

Note: To print just a selected portion, select the cells to be printed and then follow step 1.

2: Print a worksheet - Using Page Layout

This above specified method of printing is useful, when the data in the worksheet is not large and can easily fit into one page. In case the file has large amount of data, which will get printed on multiple pages, then you can adjust the *Page Layout* and *Print* settings, using the options available in *Page Setup* under the *Page Layout* tab in the ribbon.

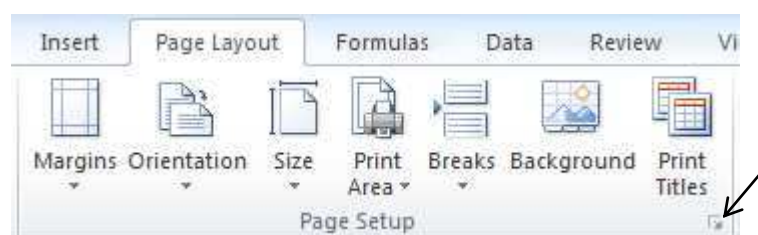



Figure -59: Page Layout Ribbon

- a) **Margins:** This option allows you to change the margin settings for Top, Bottom, Left and Right Margins in the printed page.
- b) **Orientation:** Using this option you can change the orientation of printing between *Portrait* and *Landscape*. In portrait mode, the height of the paper is more than the width.
- c) **Size:** This option allows you to change the size of the paper to be used for printing. Most of the normal printing is done using either *A4* or the *Letter* sized paper.

- d) Print Area: This option is used, when you do not want to print the complete worksheet, but want to print only a part of the worksheet. In this case:
- First select the *Range* of cells from the worksheet which have to be printed.
 - Select the option *Print Area*. Then Select the option Set Print Area.
- e) Page Setup: The *Page Setup* dialog box (refer Figure 606) can also be opened by clicking on the Dialog Box Launcher symbol  on the bottom right hand corner of the *Page Setup* group in the *Page Layout* tab (refer Figure -59). You can then select the appropriate options for setting.

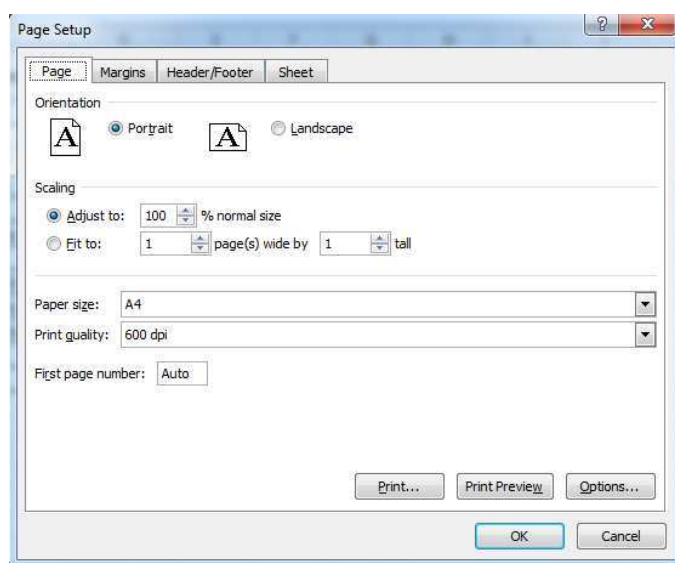


Figure 60: Page Setup Dialogue Box

EXERCISE

Perform the following activities till you are confident:

S.No.	Activity
1.	Create your class time table using a spreadsheet. Apply borders, appropriate font style, font size, column widths, content alignment, etc. to make it appear attractive. Print this time table.