Certificate in Computer Applications (CCA)
Study Material

CCA -101: Fundamentals of IT & Programming
Part 2 (Unit 2.1 - Unit 2.5)

Supported by
Institute of Management Studies (IMS), Ghaziabad-UP

About CCA Program

The certificate program focuses on computer fundamentals. This program provides a comprehensive introduction to Fundamentals of Information Technology; Computer Applications; Internet & Communication Technologies; Web Programming; and Soft Skills.

The program is designed and conducted by CSC Academy along with one of the leading Management Institute, Institute of Management Studies, Ghaziabad (UP). Some of the core subject faculty are associated in delivering this program.

After the completion of this course, student will be able to:

- Get a basic understanding of personal computers and their operations.
- Use of MS Office Tools - Like MS word, MS excel and Power point presentations
- Understand basics of Programming.
- Recognize and describe the working of Computer Networks.
- Get familiar with the basics of communication skills
- Develop good skills at writing business letters, emails, minutes of meeting and other business correspondence.
- Design and Implement interactive, responsive web site using HTM5L, CSS5 and JavaScript.
- Build Dynamic web site using server-side PHP Programming and Database connectivity.

The CCA program covers five course modules:

Unit 101: Fundamentals of IT & Programming

Unit 102: Data Communications

Unit 103: Soft Skills & Communications

Unit 104: Web Technologies

Unit 105: Cyber Security

The objective of this study material is to provide the students to enable them to obtain knowledge and skills in the related subject. This material is not in itself to be read alone, and student should use this in addition to the CCA online e-learning content study. In case students need any further clarifications or have any suggestions to make for further improvement of the material contained herein, they may give the same at CSC Academy Centre.

All care has been taken to provide content in a manner useful to the students.

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About CSC Academy

CSC Academy was setup in 2017 that provides access to professional learning for learners of diverse backgrounds and educational needs. The CSC Academy is a not-for-profit society under the Societies Registration Act 1860 (Act 21 of 1860), as applicable to the Union of Delhi with its registered office in Delhi. The CSC Academy board comprises of the Additional Secretary, Ministry of Electronics & Information Technology, Government of India as Chairman, and others reputed members from academia. CSC Academy has received certificate from Income Tax Department under section 12 AA and 80 G.

The CSC Academy is committed to teaching, delivering of specialized courses/ training programs, leadership, communication skills and promotion of entrepreneurship among the rural masses in India. Presently, the CSC Academy is delivering various Government of India sponsored skill and education programs, in addition to courses from private sector.

About Institute of Management Studies, Ghaziabad (UP)

IMS Ghaziabad is a pioneer institute for management education in Northern India. It is the first institute of IMS Society Ghaziabad with 30 glorious years of excellence. IMS Ghaziabad offers full time AICTE approved & NBA accredited PGDM Programme which has been awarded the MBA equivalent status by the Association of Indian Universities (AIU), PGDM - International Business, PGDM - Big Data Analytics and MCA Programme are approved by AICTE and affiliated to Dr APJ AKTU, Lucknow.

Since its foundation IMS Ghaziabad has gathered a lot of feathers in its cap with global accreditations and memberships such as Accreditation Services for International Colleges (U.K), AACSB Business Education Alliance, National Assessment and Accreditation Council - 'A' Grade.

IMS Ghaziabad is amongst Top 10 best B-Schools in North India as per latest MBA and B School Rankings. It has been awarded as the "Best Campus for Industry Oriented Management Education in India / Asia Pacific 2019" by ASSOCHAM and the Education Post. It has been ranked as 5th in North India and 15th in India by Times of India B School Survey, February 2019, A++ Institute in Delhi - NCR by 9th Chronicle B-School Survey 2018.

Table of Contents

Course Outline

Course Objective

This subject aims to introduce skills relating to basic concepts and terminology of information technology & programming.

Course Outcomes

At the end of this course, student should be able to:

1. Understand basic concepts of I.T.
2. Have a basic understanding of personal computers and their operations.
3. Able to use MS office tools.
4. Understand basics of Programming.

Course Details

Unit I Introduction

Introduction to computers: definitions, evolution, characteristics, Organization of a Computer, Classifications, Distributed Computers, Parallel Computers.

Computer Memory: Random Access Memory (RAM), Read Only Memory (ROM), External Memory (Secondary Memory), Compact Disk Read Only Memory, Magnetic Storage Drives, USB.

Software: Types of S/W - System Software: Operating System, Utility Programs Application Software, Overview of proprietary software, Overview of open source technology.

UNIT II Introduction to MS Word

MS Word Processing basics: Menu Bar, Using the Icons below Menu Bar; Opening and closing Documents: Save and Save as, Page Setup, Print Preview.

Text Creation and manipulation: Document Creation, Editing Text, Text Selection, Cut, Copy and Paste, Spell check.

Formatting the Text: Font and Size selection, Alignment of Text, Paragraph Indenting, Bullets and Numbering, Changing case;

Formatting a document: Set page margin, paragraphs and sections within a document, Adjust indents and hanging indents;

Table Manipulation: Draw Table, Changing cell width and height, Alignment of Text in cell, Delete / Insertion of row and column Border and shading, Table Formula.

UNIT III Spreadsheets and Presentations

Spread Sheet: Opening of Spread Sheet, Addressing of Cells, Printing of Spread Sheet, Saving Workbooks.

Manipulation of Cells: Entering Text, Numbers and Dates, Creating Text, Number and Date Series, Editing Worksheet Data, Inserting and Deleting Rows, Column, Changing Cell Height and Width.

Formulas and Function: Using Formulas, Function, basic mathematical operators, using AutoSum etc., using formulas with multiple cell references;

Presentation - Basic Concepts of presentation: Using PowerPoint, Opening A Power Point Presentation, Saving A Presentation; Creation of Presentation using a Template, Creating a Blank Presentation, Entering and Editing Text, Inserting and Deleting Slides in a Presentation; **Preparation of Slides:** Inserting Word Table or An Excel Worksheet, Inserting Other Objects,

UNIT IV Introduction to Programming

Programming Language: Machine Language, Assembly Language, High Level Language their advantages & disadvantages. Basic concepts – data types and its representation in programming, basic arithmetic operations – addition, multiplication, division, modulus; conditional checks, relational and comparisons and loops

Reference books

1. Introduction to Information Systems,JamesO'Brien,GeorgeMarakas,TMH
2. "Information Technology for Management", (2010) Behl, Ramesh, 1st Ed Tata McGraw Hill, NewDelhi
3. Alexis & Mathews: "Fundamentals of Information Technology", VikasPublication.
4. Turban - Information technology for Management : Transforming Organization in Digital Economy 7/e-Wiley
5. Henry Lucas, Information Technology For Management,TMH

Unit 2 MS Word

Unit 2.1: Introduction to MS Word

MS WORD

- MS Word is a widely used commercial word processor developed by Microsoft.

- MS word is application software, which is capable of
  - creating,
  - editing,
  - saving, and
  - printing any type of document

OPENING MS WORD

- Click the Start icon.

- Then point to All Programs.

- Then click Microsoft Office and

- then click Microsoft Word.

OPENING MS WORD 2007

WORD WINDOW
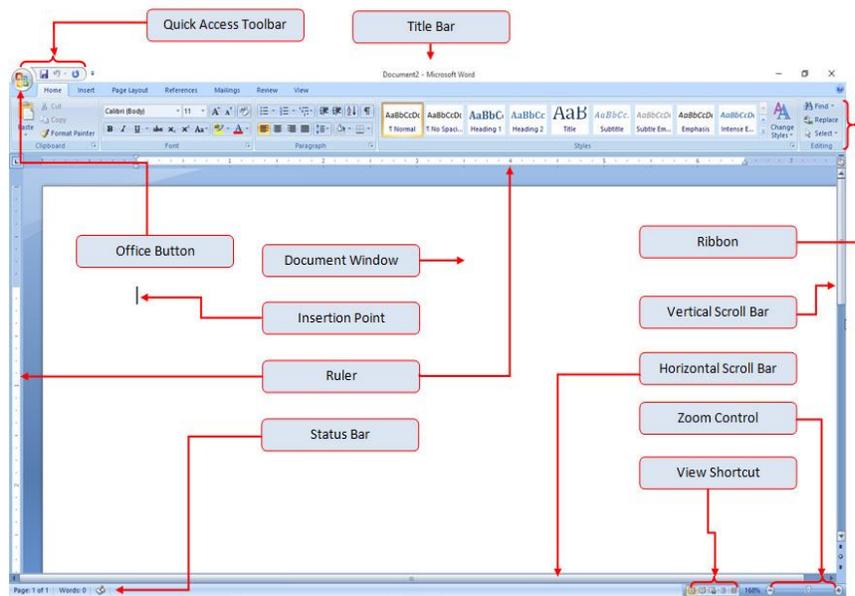
Unit 2.2: Create and Save Document

CREATING A NEW DOCUMENT

To create a new document:
- Click the **Microsoft Office button / File tab**.
- Select **New**. The New Document dialog box appears.
- Select **Blank document.** It will be highlighted by default.
- A new blank document appears in the Word window.
- Now you can create document by inserting text
- Finally save document

SAVING DOCUMENTS

To Save document using Save As command:
- Click the **Microsoft Office button/ File tab**.
- Select **Save As – Word Document**
- Select the **location** where you want to save the document using the drop-down menu.
- Enter a **name** for the document.
- Click the **Save** button.

CREATE AND SAVE DOCUMENT -LIVE PREVIEW
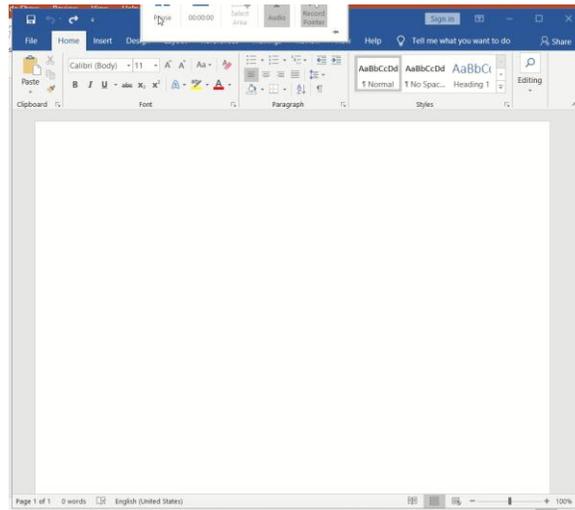
SAVING DOCUMENTS

Other commands to save document :

First Method

- Click the **Microsoft Office button or file tab**.
- Select **Save** from the menu.

Second Method

- Click Save command on Quick access toolbar

Third Method

press Ctrl + S Key on keyboard

SAVING DOCUMENTS

To Save As a Word 97 - 2003 compatible document:

- Click the Microsoft Office button / File Tab.
- Select **Save As – Word 97-2003 Document**
- Select the location where you want to save the document using the drop-down menu.
- Enter a name for the document.
- Click the Save button.

SAVING DOCUMENTS
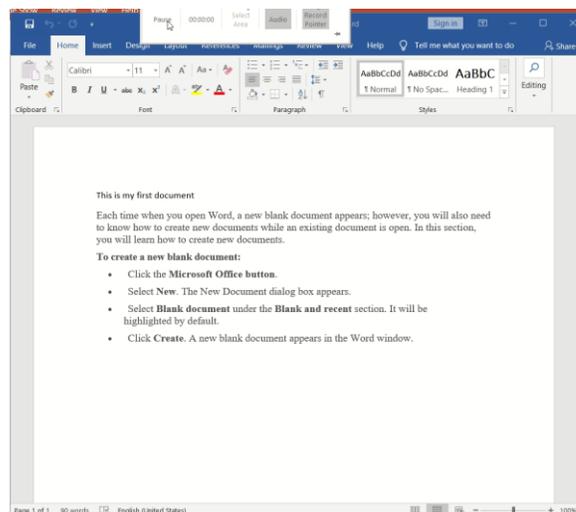
SAVING DOCUMENTS

To save document as a PDF file:

- Click the MS Office button or File Tab.
- Select **Save As –PDF.**
- Select the location where you want to save the document using the drop-down menu.
- Enter a name for the document.
- Click the Publish/Save button.

SAVING DOCUMENTS
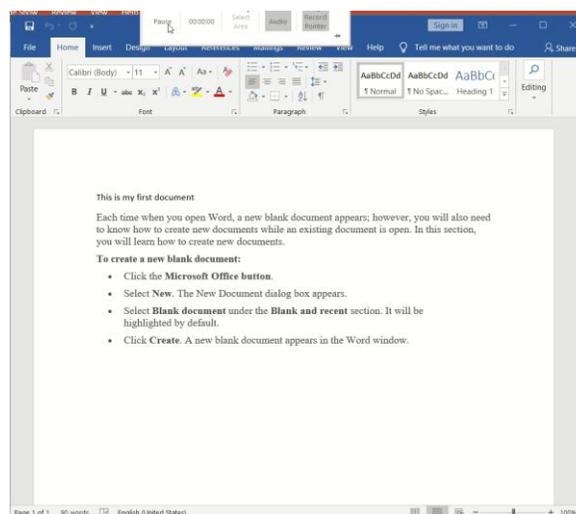
Unit 2.3.1: Working with Text

TEXT BASICS

To insert text:

- Move your mouse to the location where you want to insert text in the document.

- Left-click the mouse. The **insertion point** appears.

- Type the text you want to insert.

TEXT BASICS

To delete text:

- Place your cursor next to the text you want to delete.

- Press **Backspace** key on your keyboard to delete text left to the cursor.

- Press **Delete** key on your keyboard to delete text right to the cursor.

TEXT BASICS

– TO DELETE TEXT – LIVE PREVIEW
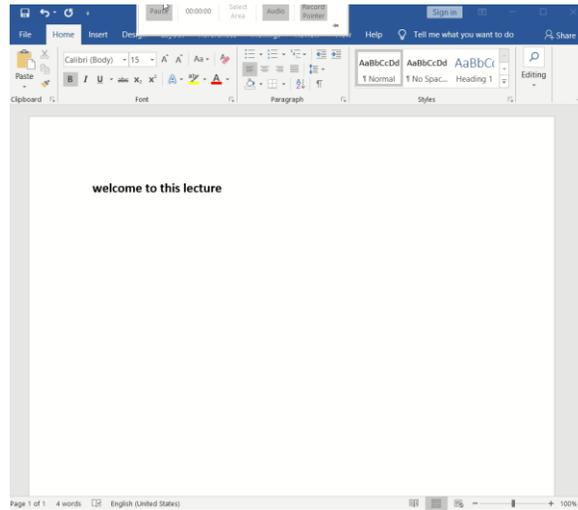
TEXT BASICS

To select text:

- Place the **insertion point** next to the text you want to select.

- Left-click your mouse. While holding it down, drag your mouse over the text to select it.

- Release the mouse button. A **highlighted box** will appear over the selected text.

TEXT BASICS
- TO SELECT TEXT – LIVE PREVIEW
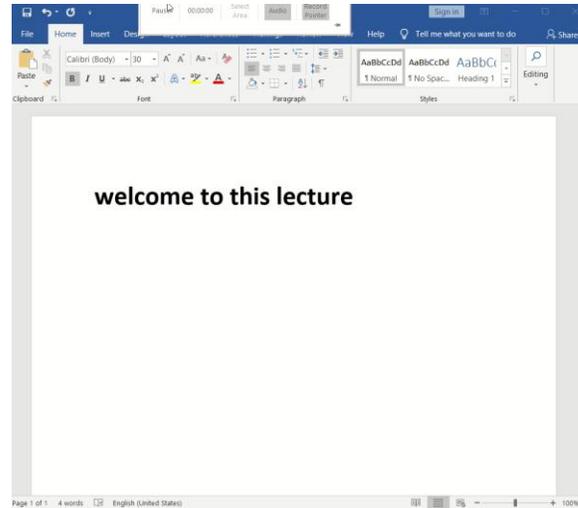
TEXT BASICS

To cut and paste text:

o Select the text you want to cut.

o Click the **cut** command on the Home tab.

o Place the insertion point where you want paste text.

o Click the **Paste** command on the Home tab. The text will appear.

TEXT BASICS

–TO COPY AND PASTE TEXT –LIVE PREVIEW
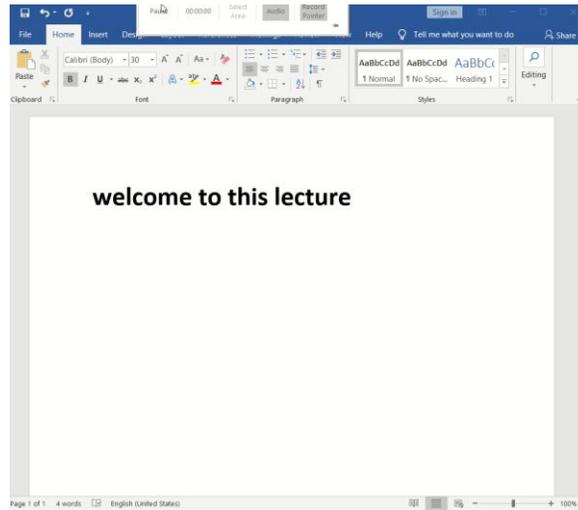
TEXT BASICS

To cut and paste text:

o Select the text you want to cut.

o Click the **cut** command on the Home tab.

o Place the insertion point where you want paste text.

o Click the **Paste** command on the Home tab. The text will appear.

TEXT BASICS

–TO CUT AND PASTE TEXT –LIVE PREVIEW
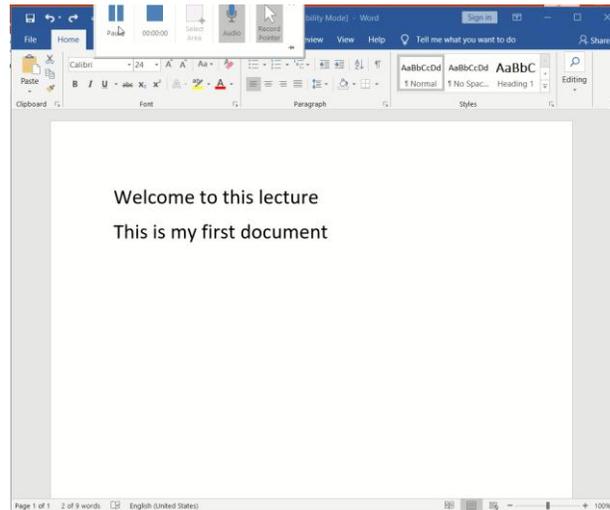
TEXT BASICS

To drag and drop text:

- Select the text you want to copy.

- Left-click your mouse, and **drag the text** to the location where you want it to appear.

- Release the mouse button, and the text will appear.

TEXT BASICS

- **TO DRAG AND DROP TEXT – LIVE PREVIEW**
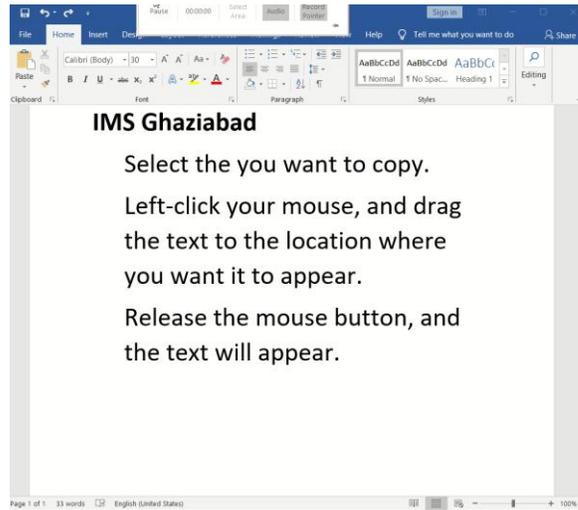
Unit 2.3.2: Basic Text Formatting

BASIC TEXT **FORMATTING**

To change size of your text

- Select the text you want to modify.
- Click on **font size box** in the **Font group** on the Home tab. The font size drop-down menu appears.
- Move your cursor over the various font sizes.
- Left-click on font size you want to use.
- Then it will change font size in your document.

BASIC TEXT **FORMATTING**

To change size of your text - live preview
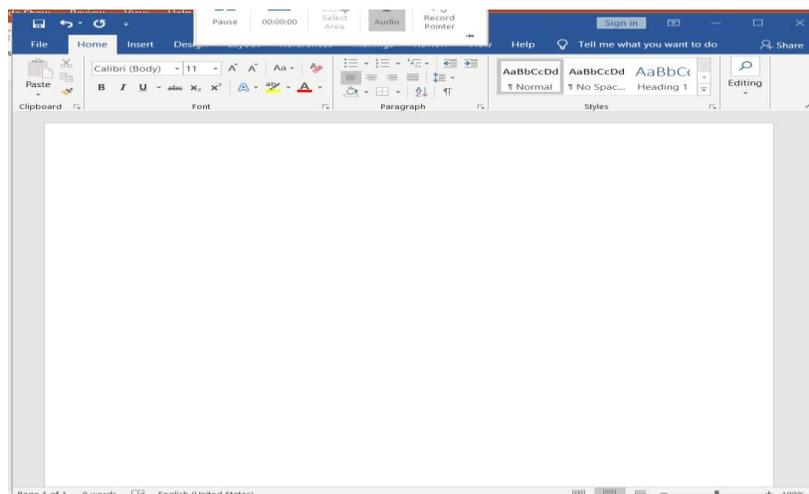
BASIC TEXT FORMATTING

To change size of your text – using increase font size and decrease font size commands

- Select the text you want to modify.

- Click on **increase/decrease font size commands** in the **Font group** on the Home tab.

- Then font size will change (increase/decrease) in the document.

BASIC TEXT FORMATTING

- **To change size of your text** – using increase font size and decrease font size commands –Live preview
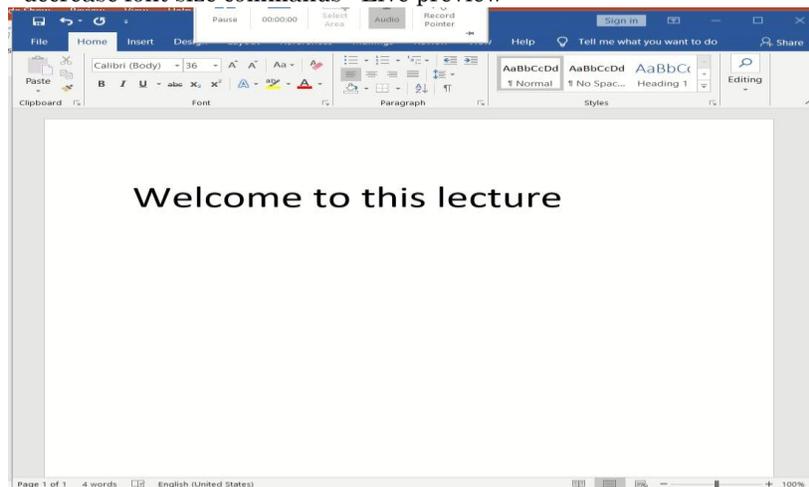
BASIC TEXT FORMATTING

To change font style

- Select the text you want to modify.
- Click on **font style box** on the Home tab. The font style drop-down menu appears.
- Move your cursor over the various font styles.
- Left-click the font style you want to use.
- Then font style will change in the document.

BASIC TEXT FORMATTING

- **To change font style** - live preview
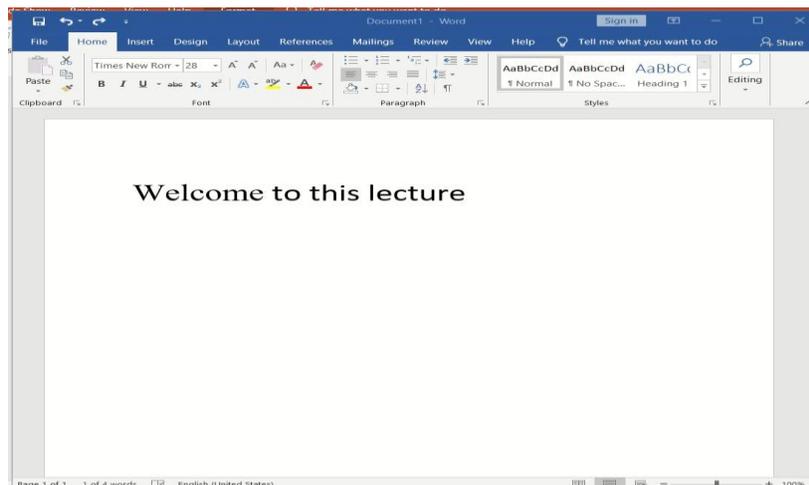
BASIC TEXT FORMATTING

To change font color:
- Select the text you want to modify.
- Click on the **font color box** on the Home tab. The font color menu appears.
- Move your cursor over the various font colors.
- Left-click the font color you want to use.
- Then font color will change in the document.

BASIC TEXT FORMATTING

- **To format font color** - live preview

Welcome to this lecture
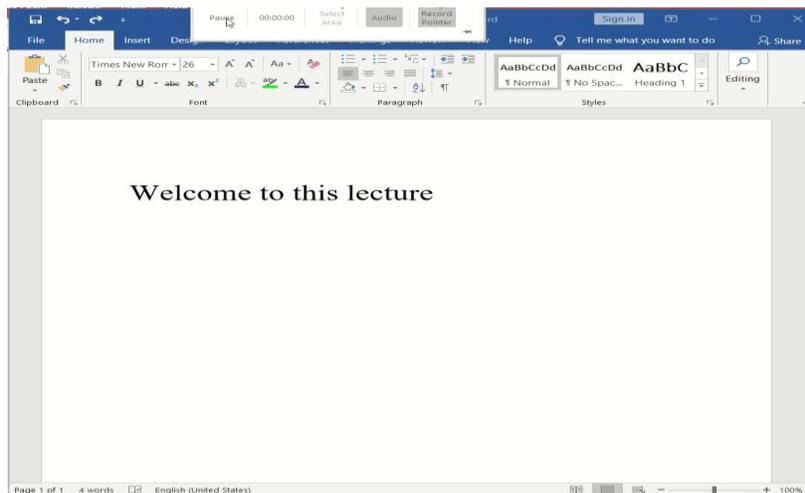
BASIC TEXT FORMATTING

To change Text Highlight color:
- Select the text
- Click on the Text Highlight color in font group on the Home tab.
- Various colors will appears
- Move your cursor over the various colors.
- Click on color you want to use.
- Then text highlight color will change in the document.

BASIC TEXT FORMATTING

- **To change Text Highlight color:** - live preview

This is my first document
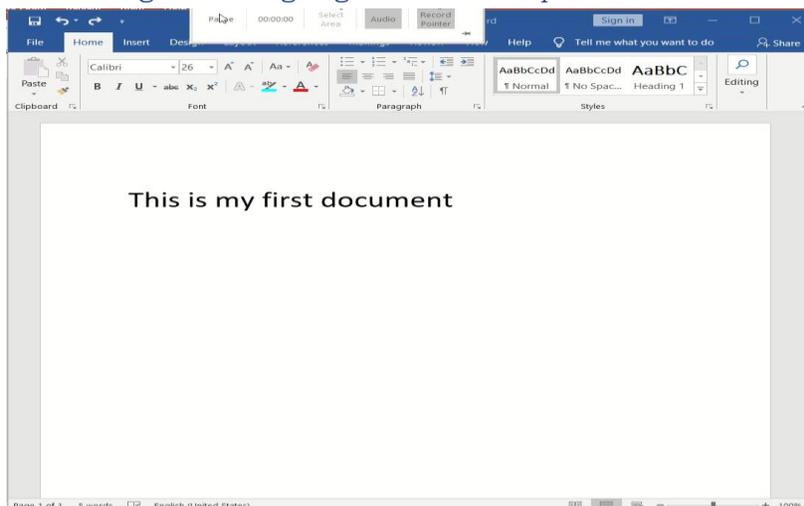
BASIC TEXT **FORMATTING**

- To **strikethrough** text – cross something out by drawing line through it
- Select the text
- Click on strikethrough in font group on the Home tab.
- Then it will cross the selected text in the document.

BASIC TEXT **FORMATTING**

- To **strikethrough** text – Live preview
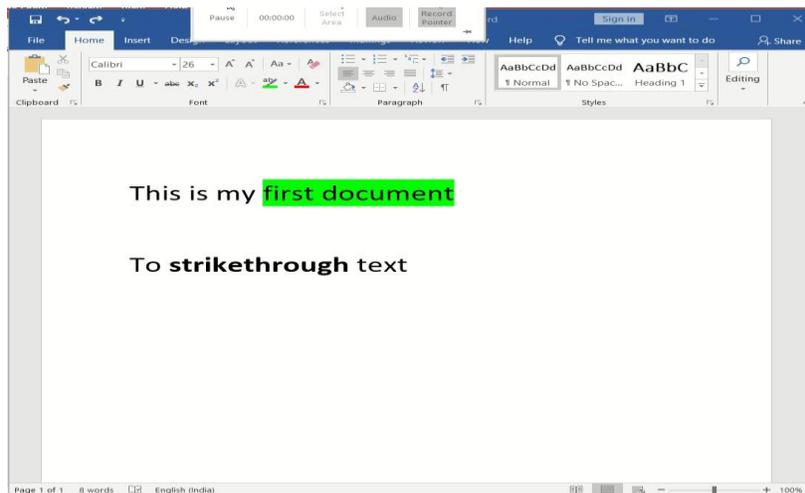
BASIC TEXT **FORMATTING**

To change text as Bold:

- Select the text you want to modify.

- Click the Bold command in the **Font group** on the Home tab.

- Then text will change in the document.

BASIC TEXT **FORMATTING**

- To change text as Bold - Live Preview
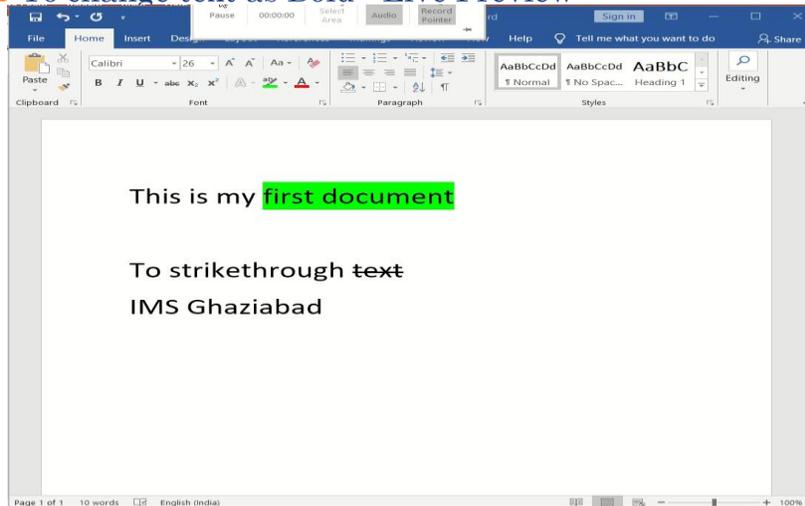
BASIC TEXT **FORMATTING**

To change text as Italic :

o Select the text you want to modify.

o Click the Italic command in the **Font group** on
the Home tab.

o Then text will change in the document.

BASIC TEXT **FORMATTING**

o To change text as Italic – Live Preview
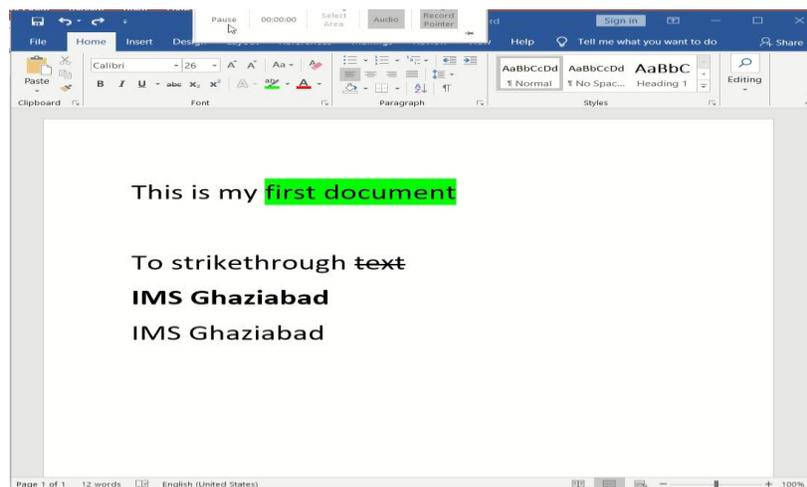
BASIC TEXT FORMATTING

To change text as Underline :

o Select the text you want to modify.

o Click the Underline command in the **Font group** on the Home tab.

o Then text will change in the document.

BASIC TEXT FORMATTING

o To change text as Underline – Live Preview
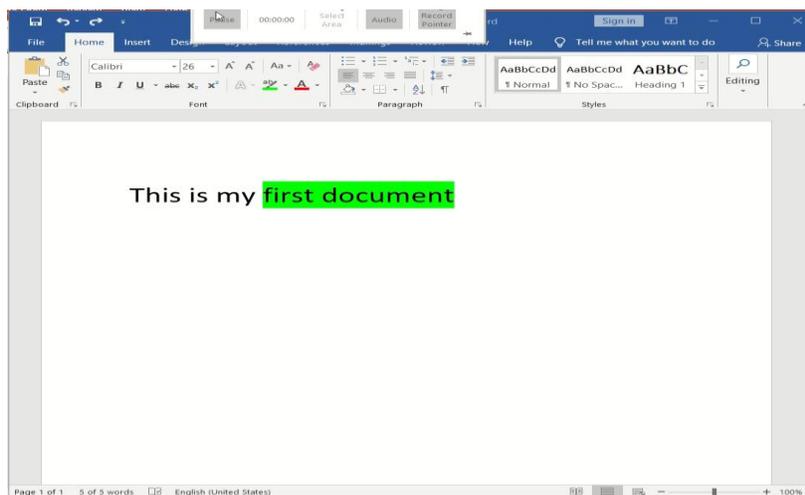
BASIC TEXT FORMATTING

To change the text case such as Uppercase, Lowercase, Capitalize Each Word

- Select the text you want to modify.

- Click the **Change Case** command on the Home tab.

- Select one of the case options from the list.

- Then It will change the text case in the document

BASIC TEXT FORMATTING

- To change the text case – Live preview
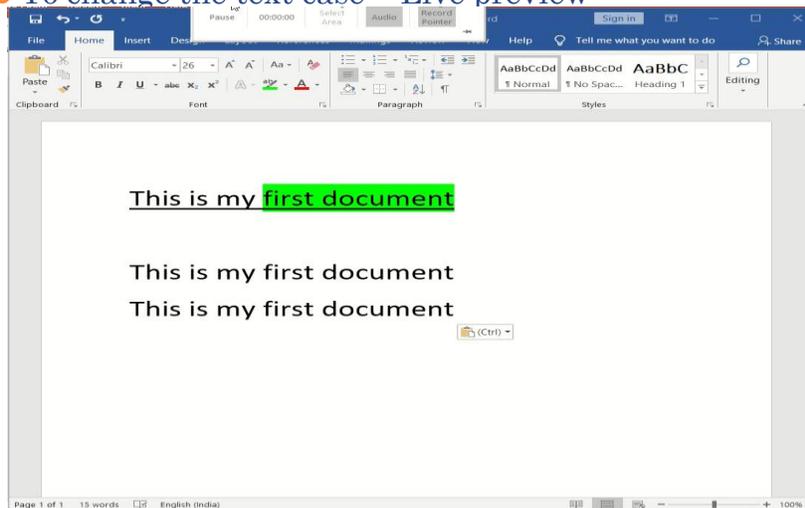
BASIC TEXT **FORMATTING**

To change text as subscript –

- Select the text you want to modify.

- Click on the subscript command on the Home tab.

- Then It will change the text as subscript in the document

BASIC TEXT **FORMATTING**

- To change the text as subscript – Live preview
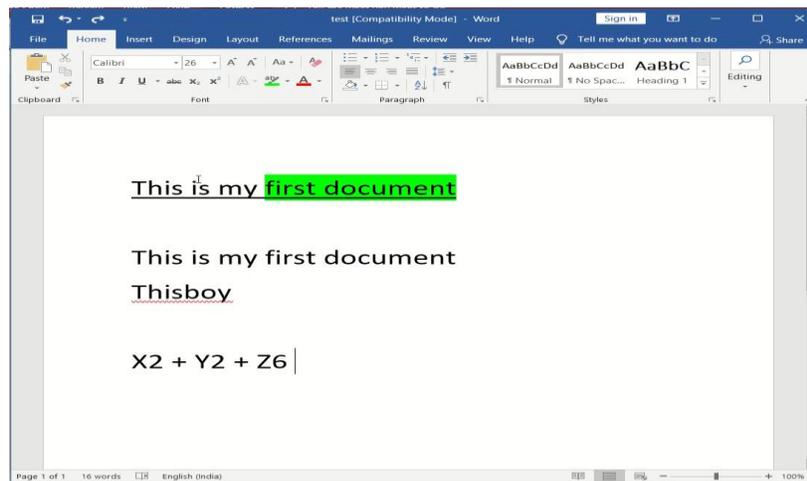
BASIC TEXT FORMATTING

To change text as Superscript (or type very small letter just above the line of text)

- Select the text you want to modify.
- Click on the superscript command on the Home tab.
- Then It will change the text as superscript in the document

BASIC TEXT FORMATTING

- To change the text as superscript – Live preview
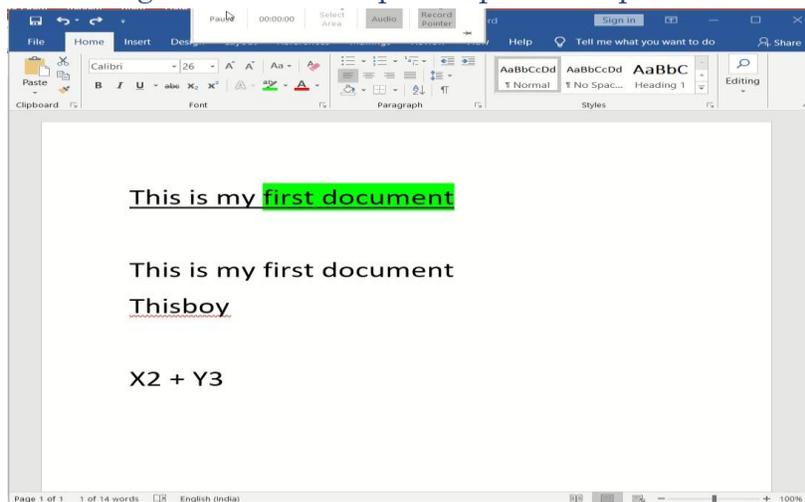
BASIC TEXT FORMATTING

- To clear all formatting – remove all formatting form selected text, leaving only normal, unformatted text

- Select the text

- Click on **Clear all formatting** command on the Home tab.

- Then It will remove all formatting from selected text in the document

BASIC TEXT FORMATTING

- To clear all formatting – Live preview
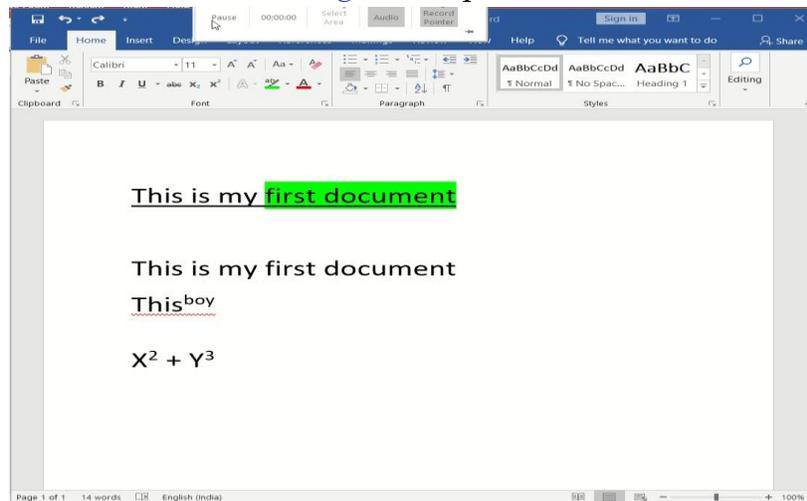
Unit 2.3.3: Working with Lists & Spell Check

WORKING WITH LISTS

To insert a new list:

- Select the text you want to format as a list.
- Click the **Bullets** or **Numbering** commands on the Home tab.
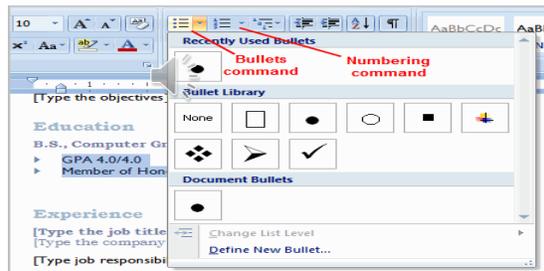
- Left-click the bullet or numbering style you want to use. It will appear in the document.

To insert a new item to the list

- Position your cursor at the end of a list item, and press the **Enter** key to add an item to the list.

WORKING WITH LISTS

To remove numbers or bullets from a list

- First select the list
- click on **Bullets** or **Numbering** commands on home tab.
- Then click on none
- It will remove Bullets or numbers from the list.

WORKING WITH Lists

To insert a new list – Live preview

Select the text you want to format as a list.

Click the **Bullets** or **Numbering** commands on the Home tab.

Left-click the bullet or numbering style you want to use. It will appear in the document.

Position your cursor at the end of a list item, and press the **Enter** key to add an item to the list.
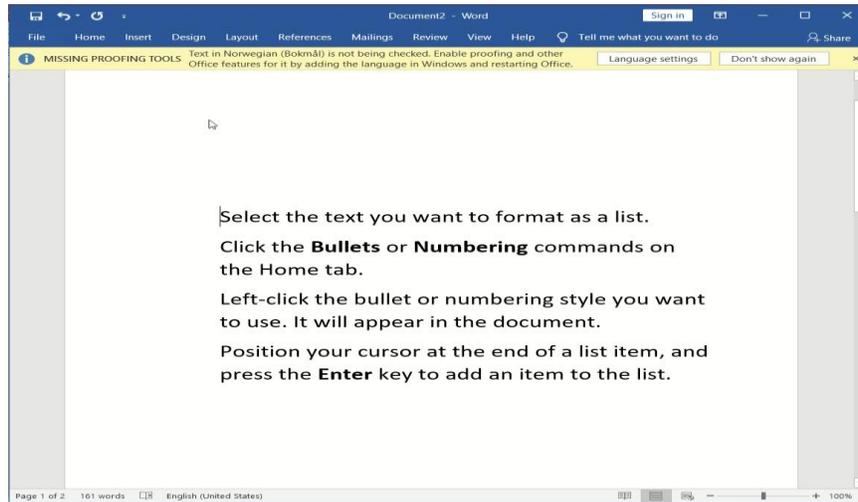
WORKING WITH Lists

To select an alternate bullet or numbering style:

- Select all the text in an existing list.
- Click the **Bullets** or **Numbering** commands on the Home tab.
- Left-click to select an alternate bullet or numbering style.

WORKING WITH LISTS

- **To select an alternate bullet or numbering style: - live preview**
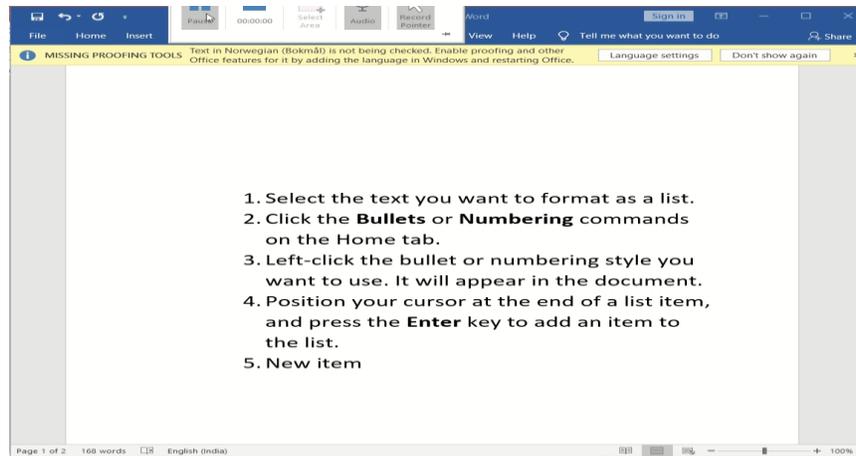
WORKING WITH LISTS

To use a symbol as a bullet:

- Select an existing list.
- Click the **Bullets** command on home tab.
- Select **Define New Bullet** from the list.
- Click the **Symbol** button. The Symbol dialog box appears.
- Click the **Font:** drop-down box, and select a font category.
- Left-click a symbol to select it.
- Click OK. The symbol will now appear in the Preview section.
- Click on OK to apply the symbol to the list.

WORKING WITH LISTS

○ **To use a symbol as a bullet- Live preview**
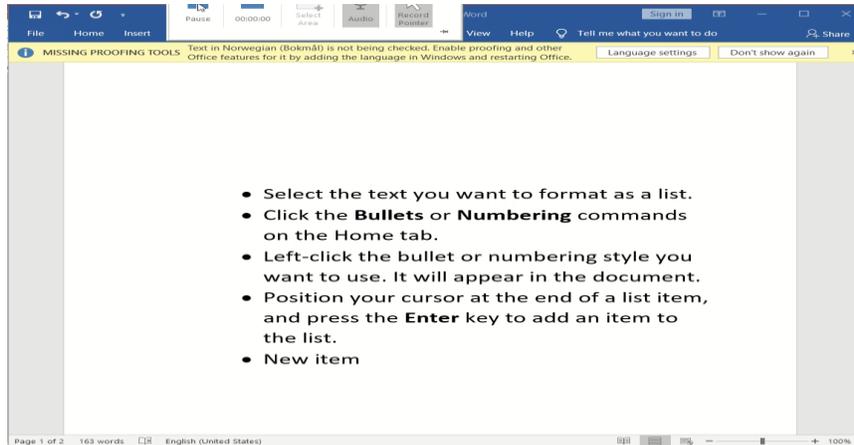
SPELLING CHECK

○ By default, Word automatically checks your document for **spelling and grammar** errors. These errors are indicated by **colored wavy lines**.

○ The **blue line** indicates a contextual spelling error.
  • A **contextual spelling** error is when an incorrect spelling of a word is chosen. For example, if you write **Deer Mr. Sharma** at the beginning of a letter, **deer** is a contextual spelling error because **dear** should have been used. **Deer** is spelled correctly, but it is used incorrectly in this letter.

○ The **red line** indicates a misspelled word.
  • For Ex: I'm intarested in this position.

○ The **green line** indicates a grammatical error.
  For Example   I will completes my degree.

Deer Mr. Sharma at the beginning of a letter, **deer** is a contextual spelling error because **dear** should have been used. **Deer** is spelled correctly, but it is used incorrectly in this letter.

○ The **red line** indicates a misspelled word.

- For Ex: I'm intarested in this position.

○ The **green line** indicates a grammatical error.

    I will completes my degree in 2020.
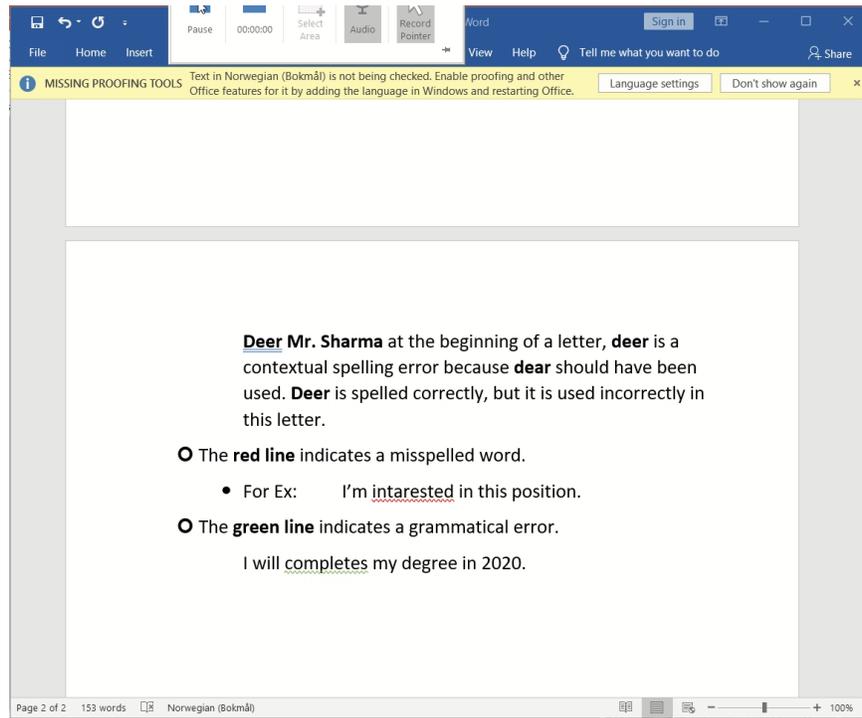
SPELLING CHECK

To use the spelling check feature:

- Right-click the **underlined** word. A menu will appear.
- Select the **correct spelling** of the word from the **listed suggestions**.
- Left-click your mouse on the word. It will appear in the document.

SPELLING CHECK

To use the spelling check feature - Live preview
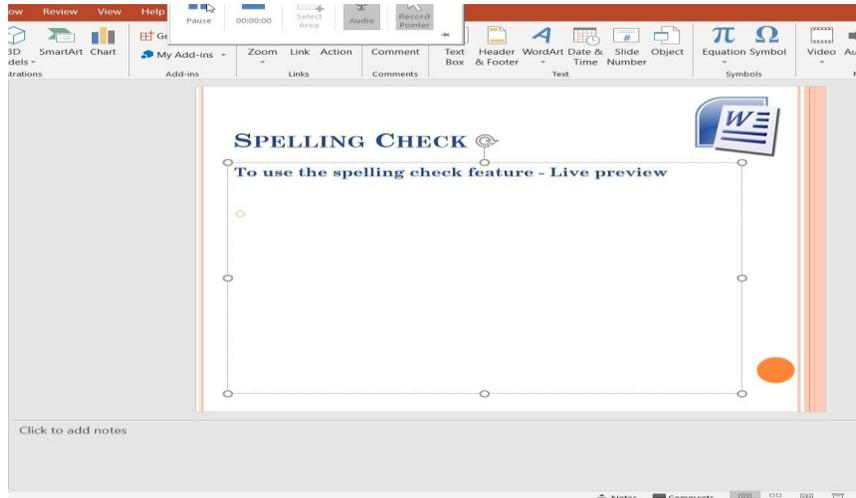
Unit 2.4: Document Formatting

FORMATTING DOCUMENT

To format line spacing:
- **Select** the text you want to format.
- Click on **Line spacing** command in the Paragraph group on the Home tab.
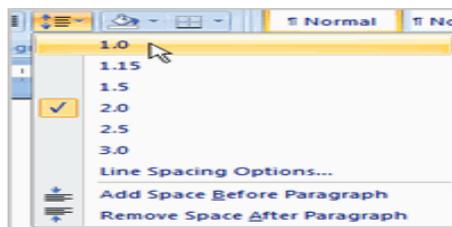
- Select a spacing option.

FORMATTING DOCUMENT

Another way to format line spacing:
- Click on Paragraph group on home tab, dialog box appears then Select **Line Spacing Options**.
- Use the **Line spacing** drop-down menu to select a spacing option.
- Modify the **before and after** points to adjust line spacing as needed.
- Click **OK**.

FORMATTING DOCUMENT

To format paragraph spacing:

- Click on **Line and paragraph Spacing command in** Paragraph group on home tab,
- Menu appears
- **To add space**

    Select **Add Space Before or After Paragraph from menu**

  To remove space

    Select Remove Space before or after Paragraph

  from the menu.
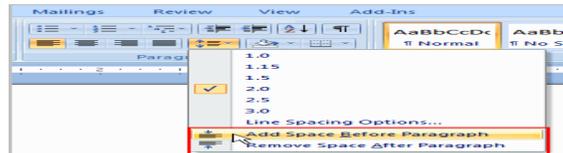
FORMATTING DOCUMENT

Other way To format line and paragraph spacing:

- Click on Paragraph group on home tab, dialog box appears then
- Select **Line Spacing Options** to change space among the lines.
- to add space before or after paragraph.

    Change the **Before** and **After** points in the Paragraph section
- Click **OK**.

FORMATTING DOCUMENT

○ Line and Paragraph spacing – live preview
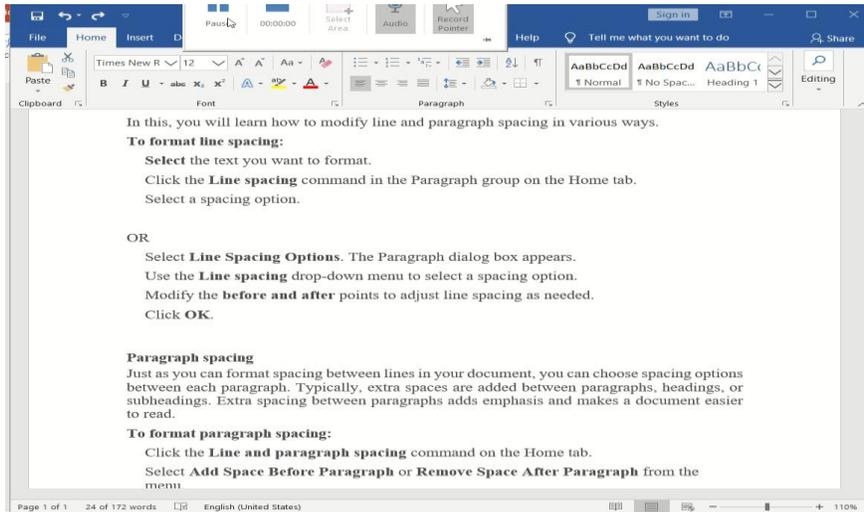
FORMATTING DOCUMENT

To change text alignment:

○ Select the text you want to modify.

○ Select **alignment options** from the Paragraph group on the Home tab.

- **Align Text Left:** Aligns all the selected text to the left margin
- **Center:** Aligns text an equal distance from the left and right margins
- **Align Text Right:** Aligns all the selected text to the right margin
- **Justify:** Aligns text equally to the right and left margins; used in many books, newsletters, and newspapers

FORMATTING DOCUMENT

To change text alignment - Live preview
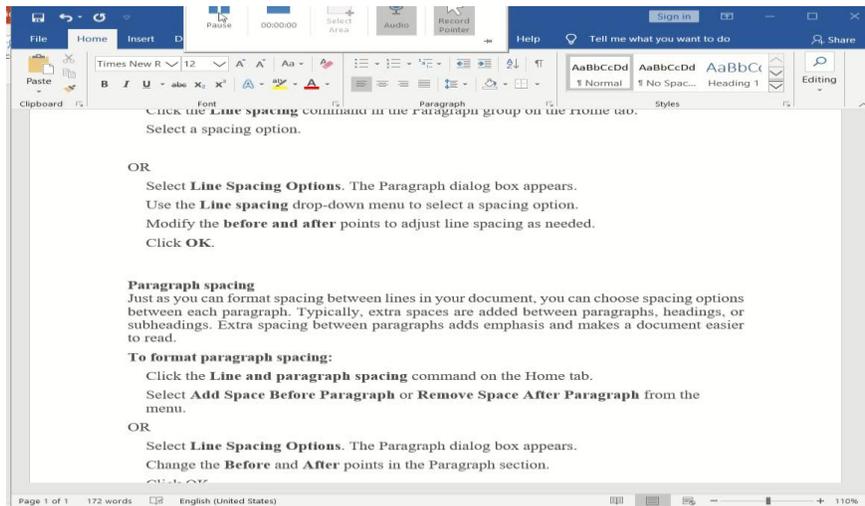
FORMATTING DOCUMENT

To change page orientation:

- Select the **Page Layout** tab.
- Click the **Orientation** command in the Page Setup group.
- Left-click either **Portrait** or **Landscape** to change the page orientation.

FORMATTING DOCUMENT

To change the paper size:

- Select the Page Layout on home tab.
- Click the **Size** command,
- Drop-down menu will appear and current paper size is highlighted
- Left-click a **size option** to select it.
- The page size of the document will change.

FORMATTING DOCUMENT

To format page margins:

- Select the **Page Layout** on home tab
- Click on **Margins** command, a menu appears. **Normal** is selected by default
- Left-click the predefined margin size
- It will change the page margins.

for desired margin size.

- Select **Custom Margins** from the menu. The Page Setup dialog box appears.
- Enter the desired margin size in the appropriate fields.

FORMATTING DOCUMENT

To format page layout – Live preview
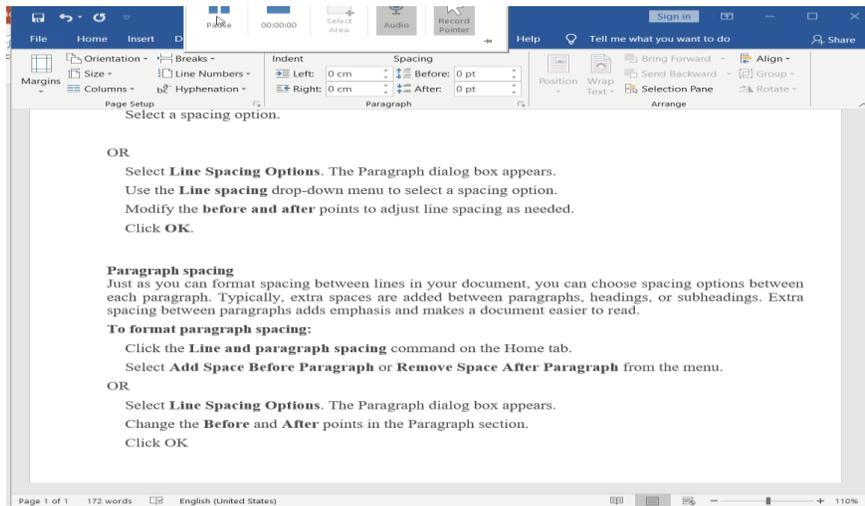
FORMATTING DOCUMENT

To insert a break:

- Place your **insertion point** where you want insert the **break** .
- Select the **Page Layout** on home tab tab.
- Click on **Breaks** command. A menu appears.
- Left-click a **break option** to select it. The break will appear in the document.

FORMATTING DOCUMENT

To print your MS Word document:
- Click on **File tab, menu appears**
- Then click on **Print** and
- a **Print** window will pop up on the screen.

- Finally Click on **OK** for your document to start printing.

FORMATTING DOCUMENT

To Exit from MS Word

- Click on ►**File tab, a menu appears**
- Then click on ►**Exit**

OR
- Click on the **X tab** in the top right corner of word window.

Unit 2.5: Working with Tables

WORKING WITH TABLES

To convert existing text to a table:
- Select the text you want to convert.
- Select the **Insert** tab.
- Click on **Table** command. A dialog box appears.
- Click on **Convert Text to Table, a new** dialog box appears
- here set number of columns.
- Click on OK
- Finally Selected text convert in a table

WORKING WITH TABLES

To convert existing text to a table - live preview

WORKING WITH TABLES

To add a row above an existing row

- Place the insertion point in a row below the location where you want to add a row.
- Right-click the mouse. A menu appears.
- Select **Insert → Insert Rows Above**
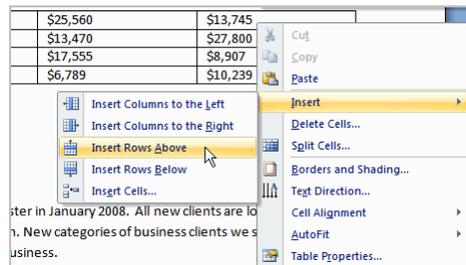
- A new row appears **above** the insertion point.

WORKING WITH TABLES

To add a row above an existing row –live preview

WORKING WITH TABLES

To add a column:

- Place the **insertion point** in a **column adjacent** to the location where you want add new column
- Right-click the mouse. A menu appears.
- Select **Insert → Insert Columns to the Left** or **Insert Columns to the Right**. A new column appears.

WORKING WITH TABLES
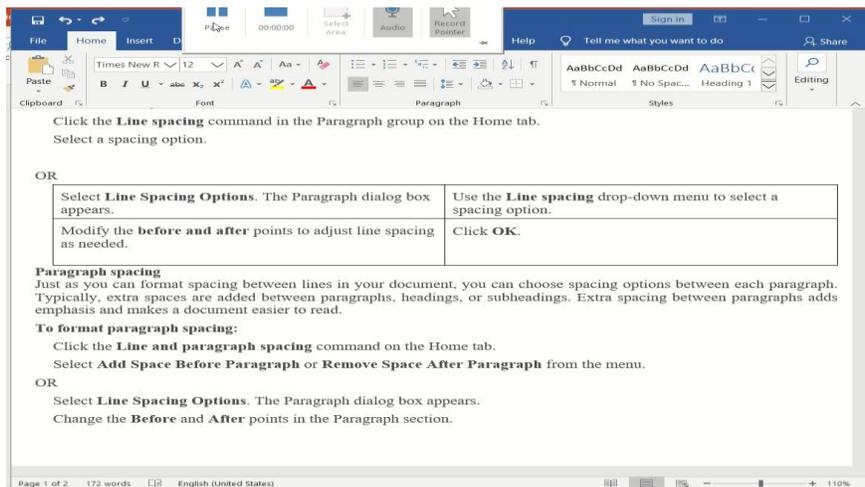
To add a column – Live preview

WORKING WITH TABLES

To delete a row or column:
- Select the row or column.
- Right-click your mouse, and a menu appears.
- Select **Delete Columns** or **Delete Rows**.

WORKING WITH TABLES

To add a column – Live preview

WORKING WITH TABLES

To insert a blank table:

○ Place your insertion point in the document where you want to insert table

○ Select the **Insert** tab.

○ Click the **Table** command.

○ Drag your mouse over the diagram squares to select the number of columns and rows in the table.
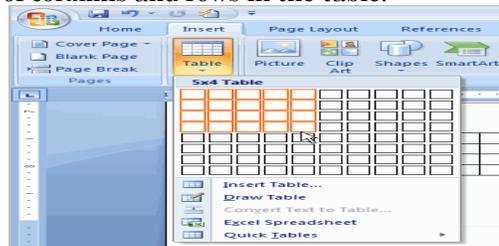
○ Left-click your mouse, and the table appears in the document.

○ Enter text into the table.

Select **Line Spacing Options**. The Paragraph dialog box appears.	Use the **Line spacing** drop-down menu to select a spacing option.
Modify the **before and after** points to adjust line spacing as needed.	Click **OK**.