CCA-101: Fundamentals of IT & Programming

Assignment -1

1. Computer Block Diagram System: Mainly computer system consists of three parts, that are central processing unit (CPU), Input Devices, and Output Devices. The Central Processing Unit (CPU) is divided into two parts again: **arithmetic logic unit (ALU) and the control unit (CU)**
2. **Classification digital Computer based on size and Capability**
   Based on size and capability, computers are broadly classified into
   a. ***Microcomputers(Personal Computer)***
   A microcomputer is the smallest general purpose processing system. The older pc started 8 bit processor with speed of 3.7MB and current pc 64 bit processor with speed of 4.66 GB.
   Examples: - **IBM PC**s, **APPLE** computers
   Microcomputer can be classified into 2 types :
   1. Desktops
   2. Portables

   The difference is portables can be used while travelling whereas desktops computers cannot be carried around.
   The different portable computers are: -
   1) Laptop
   2) Notebooks
   3) Palmtop (hand held)
   4) Wearable computers

Laptop: - this computer is similar to a desktop computers but the size is smaller. They are expensive than desktop. The weight of laptop is around 3 to 5 kg.

Notebook: - These computers are as powerful as desktop but size of these computers are comparatively smaller than laptop and desktop. They weigh 2 to 3 kg. They are more costly than laptop.

Palmtop (Hand held): - They are also called as personal Digital Assistant (PDA). These computers are small in size. They can be held in hands. It is capable of doing word processing, spreadsheets and hand writing recognition, game playing, faxing and paging. These computers are not as powerful as desktop computers. Ex: - 3com palmV.

Wearable computer: - The size of this computer is very small so that it can be worn on the body. It has smaller processing power. It is used in the field of medicine. For example pace maker to correct the heart beats. Insulin meter to find the levels of insulin in the blood.

b). Workstations:- It is used in large, high-resolution graphics screen built in network support, Engineering applications(CAD/CAM), software development desktop publishing Ex: Unix and windows NT.

b) Minicomputer: - A minicomputer is a medium-sized computer. That is more powerful than a microcomputer. These computers are usually designed to serve multiple users simultaneously (Parallel Processing). They are more expensive than microcomputers.

Examples: Digital Alpha, Sun Ultra.

c) Mainframe computers: - Computers with large storage capacities and very high speed of processing (compared to mini- or microcomputers) are known as mainframe computers. They support a large number of terminals for simultaneous use by a number of users like ATM transactions. They are also used as central host computers in distributed data processing system.

Examples: - **IBM 370, S/390.**

d) Supercomputer: - Supercomputers have extremely large storage capacity and computing speeds which are many times faster than other computers. A supercomputer is measured in terms of tens of millions Instructions per second (mips), an operation is made up of numerous instructions. The supercomputer is mainly used for large scale numerical problems in scientific and engineering disciplines such as Weather analysis.

Examples: - **IBM Deep Blue**

3. Generation in computer terminology is **a change in technology** a computer is/was being used. ... Nowadays, generation includes both hardware and software, which together make up an entire computer system. There are five computer generations known till date.
4. Volatile memory is the type of memory in which data is lost as it is powered-off. Non-volatile memory is the type of memory in which data remains stored even if it is powered-off. ... **Contents of Volatile memory is stored temporarily. Contents of Non-volatile memory is stored permanently**
5. They both differ in terms of their purpose and design. **System software is meant to administer the system resources .** It also serves as a kind of platform for running the application software. On the other hand, application

software is meant to enable the user to carry out some specific set of tasks or functions.

6. Every Word project you create—whether it's a personal letter, a TV sitcom script, or a thesis in microbiology—begins and ends the same way. You start by creating a document, and you end by saving your work. Sounds simple, but to manage your Word documents effectively, you need to know these basics and beyond. This chapter shows you all the different ways to create a new Word document—like starting from an existing document or adding text to a predesigned template—and how to choose the best one for your particular project.

You'll also learn how to work faster and smarter by changing your view of your document. If you want, you can use Word's Outline view when you're brainstorming, and then switch to Print view when you're ready for hard copy. This chapter gets you up and running with these fundamental tools so you can focus on the important stuff—your words.

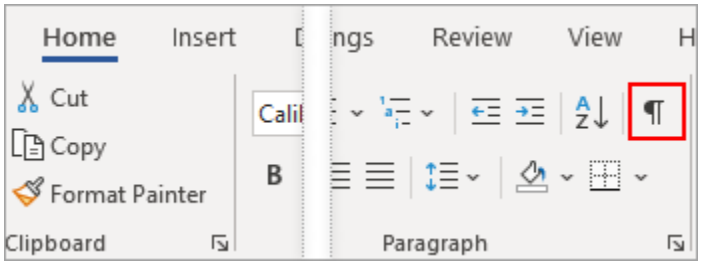
7.Save a Word document in OpenDocument Text format

1. Click the File tab.
2. Click Save As.
3. Click Browse, and then select the location where you want to save your file.
4. In the Save as type list, click OpenDocument Text.
5. Give your file a name, and then save it.

8. Convert text to a table or a table to text

Word for Microsoft 365 Outlook for Microsoft 365 Word 2019 Outlook 2019 More...

To convert text to a table or a table to text, start by clicking the **Show/Hide** paragraph mark on the **Home** tab so you can see how text is separated in your document.



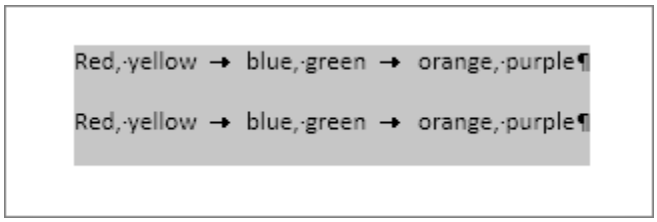
Convert text to a table

Insert separator characters—such as commas or tabs—to indicate where to divide the text into table columns.

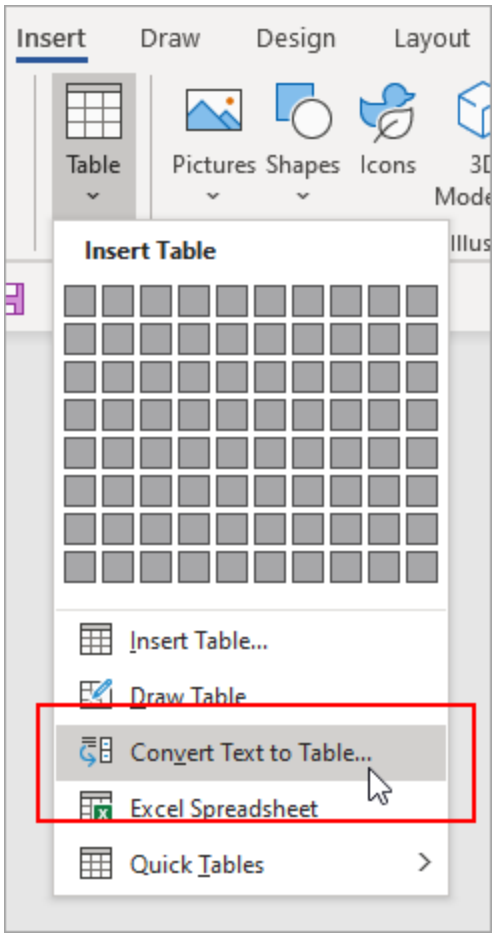
Note: If you have commas in your text, use tabs for your separator characters.

Use paragraph marks to indicate where you want to begin a new table row.

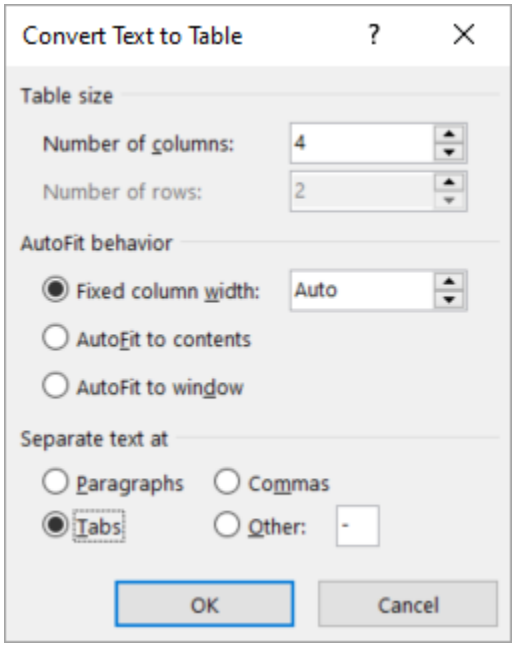
In this example, the tabs and paragraph marks will produce a table with 3 columns and 2 rows:



Select the text that you want to convert, and then click **Insert** > **Table** > **Convert Text to Table**.



9. In the **Convert Text to Table** box, choose the options you want.



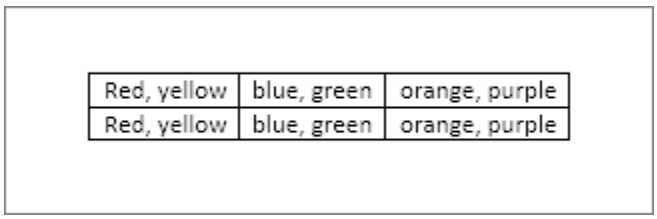
Under **Table size**, make sure the numbers match the numbers of columns and rows you want.

Under **AutoFit behavior**, choose how you want your table to look. Word automatically chooses a width for the table columns. If you want a different column width, choose one of these options:

To do this	Choose this option
Specify a width for all the columns	In the **Fixed column width** box, type or select a value.
Resize the columns to fit the width of the text in each column	**AutoFit to contents**
Resize the table automatically in case the width of the available space changes (for example, web layout or landscape orientation)	**AutoFit to window**

Under **Separate text at**, choose the separator character you used in the text.

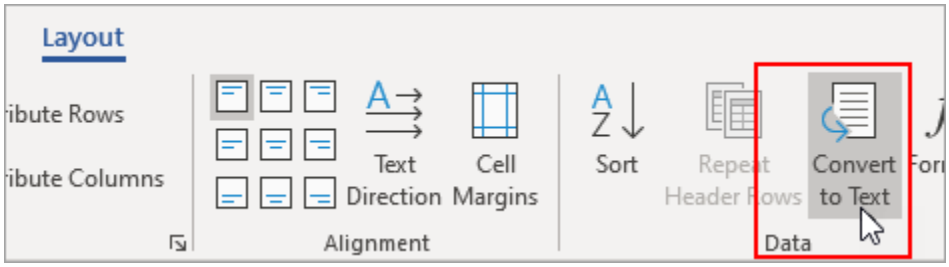
Click **OK**. The text converted to a table should look something like this:



Convert a table to text

Select the rows or table you want to convert to text.

On the **Layout** tab, in the **Data** section, click **Convert to Text.**



In the **Convert to Text** box, under **Separate text with**, click the separator character you want to use in place of the column boundaries. Rows will be separated by paragraph marks.

Click **OK**.

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10. **Answer**

1. Open a blank Word document.
2. In the top ribbon, press Insert.
3. Click on the Table button.
4. Either use the diagram to select the number of columns and rows you need, or click Insert Table and a dialog box will appear where you can specify the number of columns and rows.
5. The blank table will now appear on the page.

11. Every Excel grandmaster needs to start somewhere. In this chapter, you'll learn how to create a basic spreadsheet. First, you'll find out how to move around Excel's grid of cells, typing in numbers and text as you go. Next, you'll take a quick tour of the Excel ribbon, the tabbed toolbar of commands that sits above your spreadsheet. You'll learn how to trigger the ribbon with a keyboard shortcut, and collapse it out of the way when you don't need it. Finally, you'll go to Excel's *backstage view*, the file-management hub where you can save your work for posterity, open recent files, and tweak Excel options.

12. Formulas in Excel are basically mathematical expressions that use cell references (e.g., "A5"," D17") as arguments. For example, a formula that adds the contents of cell E5 and E6 could be written as follows:

    = E5+E6

    (Note: all formulas in Excel need to be preceded by an "=" sign.) If the values contained in E5 and E6 are 6 and 11, respectively, the formula will produce 17 as the value it displays. If you change E5 to 7, the result will automatically change to 18.

13. This facilitates specialisation and coordination in the organisation. ***Following*** are the ***various*** ways of departmentalisation: (i) On the basis of functions:.

14. Visme. Visme is a cloud-based presentation tool that allows you to create highly visual presentations to engage viewers and communicate your ideas. ...
    - Haiku Deck. Haiku Deck is a platform that prioritizes simplicity. ...
    - Pitcherific. ...
    - Canva. ...
    - SlideCamp. ...
    - Microsoft Events. ...
    - Powtoon. ...

- VideoScribe.

15. When you open PowerPoint, you'll see some built-in themes and templates. A theme is a slide design that contains matching colors, fonts, and special effects like shadows, reflections, and more.

On the **File** tab of the Ribbon, select **New**, and then choose a theme.

PowerPoint shows you a preview of the theme, with four color variations to choose from on the right side.

16. Machine language, or machine code, consists of binary code and is the only language that is directly understood by the computer. ... Both machine code and **assembly languages** are hardware specific. A high-level language is a programming language that uses English and mathematical symbols in its instructions.
17. Data Types in C

Data Types	**Bytes**	**Range**
signed char	1	-128 to 127
unsigned char	1	0 to 255
float	4	1.2E-38 to 3.4E+38
double	8	2.3E-308 to 1.7E+308

18. (a)x=205·2+30−5

    x={\color{#c92786}{\frac{20}{5}}} \cdot 2+30-5x=520·2+30−5

    x=4·2+30−5

(b) y=30−(4010+6)+10

y=30-({\color{#c92786}{\frac{40}{10}}}+6)+10y=30−(1040+6)+10

y=30−(4+6)+10

(c)z=40·210−2+10

z=\frac{{\color{#c92786}{40}} \cdot {\color{#c92786}{2}}}{10}-2+10z=1040·2−2+10

z=8010−2+10

19. **Looping Statements in C** execute the sequence of statements many times until the stated condition becomes false. A loop in C consists of two parts, a body of a loop and a control statement. The control statement is a combination of some conditions that direct the body of the loop to execute until the specified condition becomes false. The purpose of the C loop is to repeat the same

20. Find the output of the following program segments:(i) a = 110
while a > 100:
print(a)
a -= 2
(ii) for i in range(20,30,2):
print(i)
(iii) country = 'INDIA'
for i in country:
print (i)
(iv) i = 0; sum = 0
while i < 9:
if i % 4 == 0:
sum = sum + i
i = i + 2
print (sum)
(v) for x in range(1,4):
for y in range(2,5):
if x * y > 10:
break
print (x * y)
(vi) var = 7
while var > 0:

```
print ('Current variable value: ', var)
var = var -1
if var == 3:
break
else:
if var == 6:
var = var -1
```