
Statement Purpose:

This lab will provide a hands-on experience of **Microsoft Word**. Some basic features and functions of MS Word, which are mostly used while creating text documents, shall be taught and practiced.

Activity Outcomes:

The lab will teach students to **prepare different text documents** by:

- Using different **font styles, listing, and line and paragraph styles**
- Creating and formatting **tables**
- Inserting **cover pages, pictures, headers/footers, word art**, etc.
- Drawing various **diagrams**, using built-in shapes
- Using different **page layout** options

Instructor Note:

As a pre-lab activity, read Chapters 1B and 10 from the book (*Introduction to Computers* by Peter Norton, 6th edition (2013), McGraw Hill) to gain an insight about computer software generally and text processing software, especially.

1) Stage J(Journey)

Introduction

In computing, the term text processing refers to the discipline of mechanizing the creation or manipulation of electronic text. Text usually refers to all the alphanumeric characters specified on the keyboard of the person performing the mechanization. Text processing involves computer commands which invoke content, content changes, and cursor movement, for example to search and replace, format, generate a processed report of the content, or filter a file or report of a text file.

Microsoft Word is word processing software that is used to manipulate a text document, such as a resume or a report. Text is typically entered by typing and the software provides tools for copying, deleting and various types of formatting. Some of the functions of MS Word include creating, editing, saving and printing documents, copying, pasting, moving and deleting text within documents, formatting text such as font type and style, creating and editing tables, inserting elements from other software, such as illustrations or paragraphs and, correcting spelling and grammar.

Word processing programs provides tools for creating all kinds of text based documents. Word processors are not limited to working with text; they enable you to add images to your documents and design documents. Using word processors, you can create long documents with separate chapters, table of contents, index and other features. You can also print your documents in customized styles.

2) Stage a1 (apply)

Lab Activities:

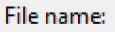
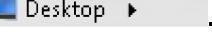
Activity 1:

Create a new word document, save it on your Desktop and close it.

Solution:

1. Start MS Word.
2. The screen will display an empty document (New Word file).
3. Type the following paragraph.

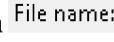
Consider this sentence: “Computers are everywhere.” Does it sound like an overstatement or a cliché? No matter how you perceive the impact of computers, the statement is true. Computers are everywhere. In fact, you can find them in some pretty unlikely places, including your family car, your home appliances, and even your alarm clock!

4. To save the file, click on Save button  on the top left corner of the screen. You can also use the shortcut keys (Ctrl + S) to save the file. The Save button can also be reached by going to File tab  on the top left corner.
5. The Save As dialog box will appear. The cursor will be active in file name drop-down box  . Type a name for this new file. Name it **MyDoc**.
6. Select Desktop  as saving location from left pane of Save As dialog box. The location bar will now be set to .
7. Left click on the Save button  at the right bottom of the dialog box. Your file is now saved on Desktop.
8. Close the file by going to File tab  and clicking on Close option .

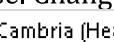
Activity 2:

Open the file you created in Activity 1. Change the font face and size.

Solution:

1. Click on File  . Select Open  . The Open dialog box will appear.
2. Set the location of the file you want to open. In this case, your file is located on Desktop. Set Desktop  as location from the left pane of dialog box. The location bar will now be set to Desktop .
3. Select the file MyDoc  from the right pane of the dialog box. The file name will appear in File Name drop-down  .
4. Right click on  . The file will now be displayed on the screen.
5. Change the original text to following format.

Consider this sentence: “**COMPUTERS ARE EVERYWHERE.**” Does it sound like an overstatement or a cliché? No matter how you perceive the impact of computers, the statement is true. Computers are everywhere. In fact, you can find them in some pretty unlikely places, including your family car, your home appliances, and even your alarm clock!

6. To make the above changes, first select C of ‘**Consider**’ using your mouse. Change its font size to 18 or larger by selecting the size from Font Size option  . You can either select the small arrow or type in the desired font size in the box.
7. Font size can be incremented or decremented by using Grow Font (Ctrl+>) and Shrink Font (Ctrl + <) options   respectively. You can see shortcut keys for different options by moving cursor over that option.
8. Select “**Computers are everywhere**” using your mouse. Change the font face to Algerian by selecting it from the font face  . You can

either use the small arrow or type in font name in the box. Font face will now be selected to Algerian ▾.

9. Save the changes by pressing Ctrl+S or .

Activity 3:

Change the case of the text to lowercase, UPPERCASE and other capitalization options.

CONSIDER this sentence: “**COMPUTERS ARE EVERYWHERE.**”

Does It Sound Like An Overstatement Or A Cliché? No matter how you perceive the impact of computers, the statement is true. Computers ARE everywhere. In fact, you can find them in some pretty unlikely places, including your family car, your home appliances, and even your alarm clock!

Solution:

1. Select ‘**Consider**’. From the toolbar/ribbon, click on small arrow besides change case option . A list of options will appear. Select toggle case . This will change all lower case letters to upper case and vice versa.
2. Select ‘**Does it sound like an overstatement or a cliché?**’ Click small arrow  again to display different case options. Select . This will change the first letters of all words of this sentence to uppercase.
3. Select ‘**are**’ in the sentence ‘**Computers are everywhere.**’ Again, click the small arrow and choose option . This will capitalize all letters of the selected text.
4. Check remaining options and see the difference.
5. Save the document using  or Ctrl+S.

Activity 4:

Use Bold, italics, underline, strike through, superscript and subscript options, and other Font options and make following changes.

CONSIDER this sentence: “**COMPUTERS ARE EVERYWHERE.**”

Does It Sound Like An Overstatement Or A Cliché? No matter how you perceive the impact of computers, **the statement is true.** Computers **A^{RE}** everywhere. In fact, you can find them in some pretty unlikely places, including your **family car**, your **home appliances**, and even your **alarm clock!**

Solution:

1. Using your mouse, select “**Computers are everywhere.**” Choose underline option  from the font toolbar. You can change different line styles by clicking on the small arrow beside this . You can alternatively press Ctrl+U for

- the same.
2. Select '**Does It Sound Like An Overstatement Or A Cliché?**' Choose italics option from the font toolbar. You can perform the same function by pressing Ctrl+I.
 3. Select '**consider**'. Choose subscript option or press Ctrl+=.
 4. Select '**RE**' from '**ARE**'. Choose superscript option or press Ctrl+Shift++ keys.
 5. Select '**family car**'. Choose strikethrough from font toolbar.
 6. Select '**home appliances**'. Click on the bold option from the toolbar or press Ctrl+B for bolding it out.
 7. Select '**the statement is true.**' Choose highlight . You can pick a different highlight color by using the down arrow with the option.
 8. Select '**alarm clock!**' using the mouse and right click on Font Color . You can find a variety of colors by using the down arrow.
 9. If you want to clear all the text formatting, simply click on .
 10. Save the document using or Ctrl+S.

Activity 5:

Using different paragraph options, write the given paragraph.

Consider this sentence: "computers are everywhere." Does it sound like

- a. **an overstatement or**
- b. **a cliché?**

No matter how you perceive the impact of computers, the statement is true. Computers are everywhere. In fact, you can find them in some pretty unlikely places, including

- **your family car,**
- **your home appliances, and**
- **even your alarm clock!**

Solution:

1. Create a new MS Word document. Write the given paragraph as you did in activity 1. Make it bold (Ctrl+B or select).

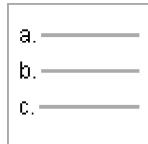
**Consider this sentence: "Computers are everywhere."
Does it sound like an overstatement or a cliché? No**

matter how you perceive the impact of computers, the statement is true. Computers are everywhere. In fact, you can find them in some pretty unlikely places, including your family car, your home appliances, and even your alarm clock!

2. Place your cursor after 'like' in line # 2. Press Enter from keyboard. Now position the cursor after 'or' and press Enter. Place the cursor after '?' and press Enter. Select the following lines.

an overstatement or
a cliché?

3. Select down arrow of Numbering option from Paragraph toolbar. You will see different numbering styles/formats. Choose the following format.



4. Again select the same text. From the paragraph toolbar, click on the down arrow of line and paragraph . You will see different spacing options. Select 1.5. Try using other options too and note the difference.
5. Repeat step 2 for '**your family car, your home appliances, and even your alarm clock!**' to have them in new lines (as shown below). Select the text.

your family car,
your home appliances, and
even your alarm clock!

6. Choose Bullets option from the toolbar. You can change the style of bullets by selecting the down arrow. Re-select the text and change the line and paragraph spacing to 2.5 (as was done in step 4).

Activity 6:

Type-in the following text in either a new word document or an existing one, using different paragraph options.

1. Main item # 1.
 - 1.1. Sub-item 1.1.
 - 1.1.1. Sub-sub-item 1.1.1.

- 1.1.2. Sub-sub-item 1.1.2.
- 1.2. Sub-item 1.2.
- 2. Main item # 2.
- 3. Main item # 3.

Solution:

1. Write '**1. Main item # 1**'. Don't forget to add single space after '1.' by using the spacebar on the keyboard. Press Enter from the keyboard. You will see that numbering automatically starts. You can start numbering in any format, e.g. 1.1./a./ A) etc.
2. Add the remaining Main items, i.e. Main item # 2 and Main item # 3 using the same procedure as of Step 1.
3. Once you are done with all the Main items, start with sub-items. Place the cursor after '**Main item # 1**' and press Enter. A new item # 2 will appear. Use backspace key of the keyboard and delete the number 2. Now type '**1.1. Sub-item 1.1.**' Don't forget to add a space after '1.1.'
4. Press Enter. A new numbered item 1.2. will appear on the document. Write '**Sub-item 1.2.**' after it.
5. Place the cursor after '**1.1. Sub-item 1.1.**' Press Enter. Delete **1.2.** by using the backspace key from the keyboard. Write '**1.1.1.**' and press spacebar once. This will add another level of numbering. Write '**Sub-sub-item 1.1.1.**' in front of 1.1.1.
6. Press enter and repeat step 4 for 1.1.2. item.

Activity 7:

Insert different pages in a Word document such as Cover page or a blank page. Cover page is the first page of any document that displays the title, date, author name, organization name, etc. Blank page is a new empty page that is added at the cursor position.

Solution:

1. Open MyDoc that was created in activity 1.
2. Select the Insert tab  **Insert**  from the toolbar.
3. You will see different page options in the Page ribbon. Select Cover Page option



Cover

Page .

The down arrow will display different styles of cover pages. Select any format of your choice. A new cover page is now added to the start of your document.

4. Edit different text boxes on the cover page, selecting them and filling in the appropriate information.



Blank

Page

5. The cursor is at cover page. Now add a blank page by selecting **Blank Page** from the ribbon. A new page will be inserted after cover page.
6. Save the document.

Activity 8:

Insert following tables in the document. Table 1 should be inserted by selecting the matrix from the option and Table 2 should be created by entering the number of rows and columns in the Insert Table dialog box.

Table 1			

Table 2

Introduction	To	Information	And	Communication
Technologies				

Solution:

1. Open an existing document or create a new one.

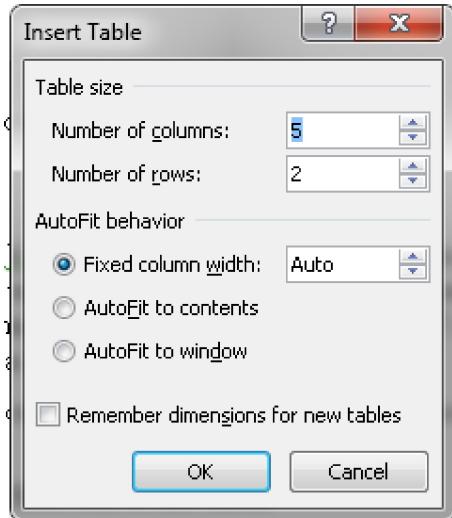


2. From the Insert tab **Insert**, select the Table option by clicking on its down arrow. You will see matrix in the form of rows and columns. Roll your mouse over this matrix and different numbers of rows and columns will be highlighted. Select a matrix of size 3x4.
3. A table with fixed cell size will be inserted in the document where the cursor is located.
4. Type in **Table 1** in first cell of the table.
5. Write **Table2** just below the table and press Enter.



Table

6. Re-select Table option by clicking its down arrow. Select the option **Insert table** at the bottom. Insert Table dialog box will appear as given below.

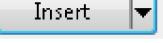


7. Write 5 in Number of columns box and 2 in Number of rows as shown above. You can set the cell size in AutoFit behavior. Select AutoFit to contents. This will resize cell size as you type-in text. Press OK.
8. A table will be inserted in the document at location where the cursor was placed. Write **Introduction to Information and Communication Technologies** in different cells (as shown in activity description). You can place cursor from one cell to next by either using mouse or pressing the Tab key on your keyboard.
9. If you roll your cursor over the table, you will see different options to format table by right clicking on .

Activity 9:

Insert a picture to the document. Apply different options to it.

Solution:

1. Open an existing Word document or create a new.
 2. Place the cursor on a location on the page where the picture should be inserted.
- 
- In the Insert tab  **Insert**  **Picture** from the Illustrations ribbon. An Insert Picture dialog box will open.
3. Go to the location where the picture is saved in the computer. Select the picture from the right window and select Insert button  **Insert**  . You can also click on the down arrow on the button to see different insert options.
 4. The selected picture will be inserted to the document where the cursor was located.
 5. Click on the Picture Tools tab  **Picture Tools**, available on top of the window/screen. Format tab  **Format**  will now be visible, displaying several picture related formatting options.

6. Try formatting the picture by applying different styles from the style ribbon



7. Add border to the picture by selecting Picture Border's down-arrow



8. Different picture effects can be applied



9. Insert another picture following same steps; however, this time, try inserting the



Position

picture in the middle of a paragraph. Try different Position and Wrap Text



Wrap
Text

options to the picture and see the difference.

10. Select one of the pictures in the document. Go to Picture Tools and then Format



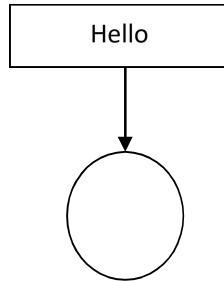
Crop

tab. Use the crop to crop the picture. Also rotate your picture 90 degrees anticlockwise using either Rotate option in the toolbar or rotating the green circle over the picture using the mouse.

11. Save the document.

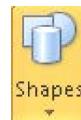
Activity 10:

Insert drawing canvas and draw the given diagram using different shapes. Group the different shapes used to make one.



Solution:

1. Open an existing word document or make a new file.
2. Place the cursor on a location on the page where you want to insert canvas.



Shapes

3. From the Insert tab, select Shapes by clicking its down-arrow. A list of different shapes will appear.
4. Select Rectangle under Basic Shapes. Now draw this rectangle, of any size, on the page using mouse.

5. Now select an  from Lines group **Lines** and draw a line from the lower mid of the rectangle downwards.

6. Now select a circle  from Basic Shapes group **Basic Shapes** and draw it just below the arrow.

7. If you want to format any shape, click on the shape. Drawing Tools option



Format

will appear on over the toolbar. Select this option and different format options will be available to format the selected shape. Alternatively, you can select a shape and click right on it. Different format options will appear.

8. Right click on the drawn rectangle and select Add Text feature  **Add Text**. Now write **Hello** inside Rectangle. You can format text (change color, style, size etc.), as done in previous activities.

9. To group all the shapes, click on rectangle first. It is now selected. While keep pressing Ctrl key on your keyboard, move cursor on arrow. An arrow with a plus sign  will appear. Select the arrow too. Remember to keep pressing Ctrl key. Now move cursor near the circle. Select it when you see an arrow with a plus. Now all the shapes you have drawn on the canvas have been selected. Relieve the Ctrl key.

10. Move mouse over the diagram and see when you get cross arrows. Right click and choose Grouping and then Group  **Group**. All the shapes have now been grouped together to make a diagram. You can now drag/rotate the diagram as a whole.

11. Save the document.

Activity 11:

Insert a header, footer, page numbers and a math's equation () in a Word file.

Solution:

1. Open an already existing file.



2. Go to Insert tab. Click on the down-arrow of Header  in Header & Footer section. A list of header options will appear. Select a header of your choice and you will header on every page of your document.

3. The header can be edited and formatted by using different options in Header &



When you are finished, choose close header

4. You can insert footer to your document by following the same steps. Click on the



Footer

in the Insert tab. A list of footer styles will appear. Select one.

5. Design the footer by using different features of Header & Footer Tools. Once designed, close the header and footer.

6. For inserting page numbers, go to Insert tab and select down arrow on Page



Page

Number

Number

Different options will appear. Select Top of Page
Top of Page . Then, among different styles, choose one style of your choice.

7. Page numbers can be formatted by selecting Format Page Numbers option

Format Page Numbers... . Header & Footer Tools also let writers to format page numbers.

8. For inserting the given math's equation, place the cursor at the appropriate place on page. In the insert tab, there is a Symbols section. Select the down arrow of



Equation . There are many built-in equations.

Area of Circle

$$A = \pi r^2$$

9. Select Area of Circle and that equation will be inserted into the document. You can edit the equation as well by overwriting with your own variables.

10. When the equation is selected, Equation Tools will appear on top of the window. This will let you format the selected equation by applying different options, such as using different symbols and structures (fraction, script, radical, integral, large operator, bracket, function, limit and log, matrix, etc.).

11. Save the document and exit.

Activity 12:

Design the layout of document pages. Apply different themes, setup page, and page background.

Solution:

1. Open an existing Word document or make a new Word file.

2. Go to Page Layout [Page Layout]. On the left-most side of the toolbar, there is



a Themes Themes. Click on its down arrow and choose a theme for your page. This option will change the overall design of the entire document, including colors, fonts and effects.

3. You can also customize color, font, or effects under a theme by selecting Colors Colors , Fonts Fonts , and Effects Effects options respectively.

4. In the page layout tab, you will find Page Setup section that will enable you to



Margins

setup page setup page , change page orientation (portrait or landscape)



Orientation Orientation



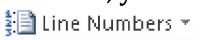
Size Size



Columns Columns

, page page , and page page that will split the text into two or more columns. Try applying these options.

5. In the same ribbon, you can number every line of your document by using Line Numbers .



6. In the same Page Layout tab, there are various options for designing the



Watermark Watermark

background of pages. Watermark will insert ghosted text behind the content of the page. You can change the color of the page by utilizing



Page Page

Color Color

the Page Color the Page Color . Borders can be inserted too by using the Page



Border Border

7. Apply these features and save the document.

Activity 13:

Write a paragraph and create four copies of the paragraph by copying the text. Insert a page break before each paragraph so that the first page is blank. Insert a line before each paragraph and type a heading line such as "Paragraph 1", "Paragraph 2", etc. Set the style of each heading line to be Heading 1.

Solution:

1. Left-click three times to highlight the entire paragraph.
2. Right click the selected paragraph and select Copy (or Ctrl-C) followed by Paste (or Ctrl-V) to create copies of a paragraph.

3. Select Insert > Pages > Break > Page Break to insert a page break.

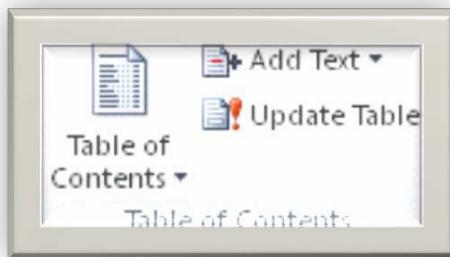
4. Left-click three times to highlight the heading line.
5. Select “Heading 1” from the main toolbar of Styles on the home tab.
6. Repeat step 4 & 5 for all paragraphs.
7. Create individual styles for each of the five paragraphs. You are not printing this file, so be creative with colors, animations, etc.

Activity 14:

Create, update and remove table of contents.

Solution:

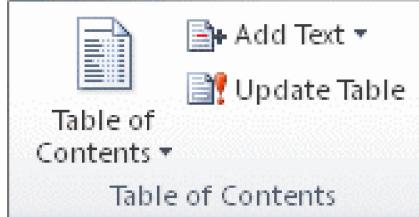
1. On the References tab, in the Table of Contents group, click Table of Contents, and then click Insert Table of Contents.



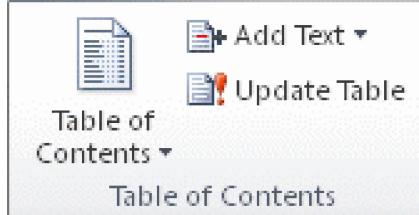
2. In the Table of Contents dialog box, do any of the following:
3. To change how many heading levels are displayed in the table of contents, enter the number that you want in the box next to Show levels, under General.
4. To change the overall look of your table of contents, click a different format in the Formats list. You can see what your choice looks like in the Print Preview and Web Preview areas.
5. To change the type of line that appears between the entry text and the page number, click an option in the Tab leader list.
6. To change the way heading levels are displayed in the table of contents, click Modify. In the Style dialog box, click the level that you want to change, and then click Modify. In the Modify Style dialog box, you can change the font, the size, and the amount of indentation.
7. Repeat step 1 and step 2 for each heading style that you want to include in the table of contents.
8. Click OK.
9. Choose a table of contents to fit the document type:
10. Printed document If you are creating a document that readers will read on a printed page, create a table of contents in which each entry lists both the heading and the page number where the heading appears. Readers can turn to the page that they want.

Update the table of contents

1. If you added or removed headings or other table of contents entries in your document, you can quickly update the table of contents.
2. On the References tab, in the Table of Contents group, click Update Table.



3. Click Update page numbers only or Update entire table.
4. Delete a table of contents
5. On the References tab, in the Table of Contents group, click Table of Contents.



6. Click Remove Table of Contents.

Activity 15:

Insert references.

Solution:

1. Click References tab
2. Click Manage Sources on the Citations & Bibliography menu
3. Either Copy sources from the Master List to the Current List or create New sources that will automatically be added to both the Master and CurrentList
4. Sources in the Current List will be shown in the dropdown Insert Citation list make your selection.
5. Enter information for each source.
6. Once all your sources are entered, close the window.
7. Select Style on the Citations & Bibliography menu and choose the appropriate style (typically APA but differs with professor; for Swasy, choose Chicago)
8. Click the Bibliography dropdown list and select Insert Bibliography
9. The bibliography will appear in your Word doc.
10. Edit accordingly (most bibliographies are double spaced)

Activity 16:

Cite references

Solution:

1. Click References tab
2. Click Insert Citation from the Citations & Bibliography menu and select appropriate source from the dropdown list
3. Make sure you have selected the appropriate style from the Style section of the Citations & Bibliography menu

3) Stage v (verify)

Home Activities:

Activity 1:

You are required to create your personal letterhead. It must include:

- Your name – use Word Art
- Your address
- Your phone number
- Your email
- Your website URL
- Graphics that pertain to you

The placement/location of the items is up to you. Letterheads must extend no more than 2 inches from the top of the page. Display the ruler bar and adjust the vertical ruler to the top of the page. Save as “letterhead your name”.

Activity 2:

Open the letterhead you created in activity 1. Resave (Save As) and name it “WPexer2 your name.” Type the letter below using the following instructions:

- Center the words “(your name) Corporation”
- Insert the date (do not type it in).
- Mr. Richardson’s name and address are single spaced.
- Underline the words “confirmation” and “9 p.m.”

- Bold the words “no cost”, “November 25th”, “Norseman Inn” and “Cappy’s Capers”
- Put approx. 4 blank lines after “Warmest regards” to allow space for a signature
- Your first and last name are typed at the bottom
- Save

Your letterhead goes here

(Your name) Corporation

(Current date)

Ms. Patsy Richardson
123 Main St.
Winnipeg, Manitoba
R2B 5F2

} Single spaced

Dear Ms. Richardson

This letter is a confirmation of your request for a ticket to the Annual Fireman’s Ball. Our corporation is happy to provide the ticket to you at no cost.

As you will note from the tickets, the Ball is being held November 25th at the Norseman Inn and will begin promptly at 9 p.m. The famous band, Cappy’s Capers, will provide an entertaining evening of dancing and comedy.

Thank you for allowing our company to be of service to you.

Warmest regards,

(Your name)

Activity 3:

Tabs can be left, or right aligned, centered or decimal tabs. All tabs can have dot leaders.

1. Type the exercise below down through (to and including) the first paragraph.
2. After you have typed the first paragraph, delete all tabs.
(On the **Home** tab or the **Page Layout** tab, click the **Paragraph** dialog box launcher. In the **Paragraph** dialog box, click **Tabs**, click **Clear all**)
3. Before you start typing the line “Store # 1..., set the following tabs
Left tab 0.5” Centered tab 2”
Right tab 3.5” dot leader decimal tab 5.5”
4. Type the columns of information on the stores.
5. Save your document as “WPtabsA your name”

To: Tom Jennings

From: (your name)
Re: Monthly report of widgets sold to date
Date: (use current date)

Tom, the following monthly sales figures seem to indicate that the new item we are offering for sale is taking the market by storm. I would suggest that we continue to advertise as originally planned.

Store#1	ClearWater #A459.....	\$356
Store#2	Camrose	B375.....205

Activity 4:

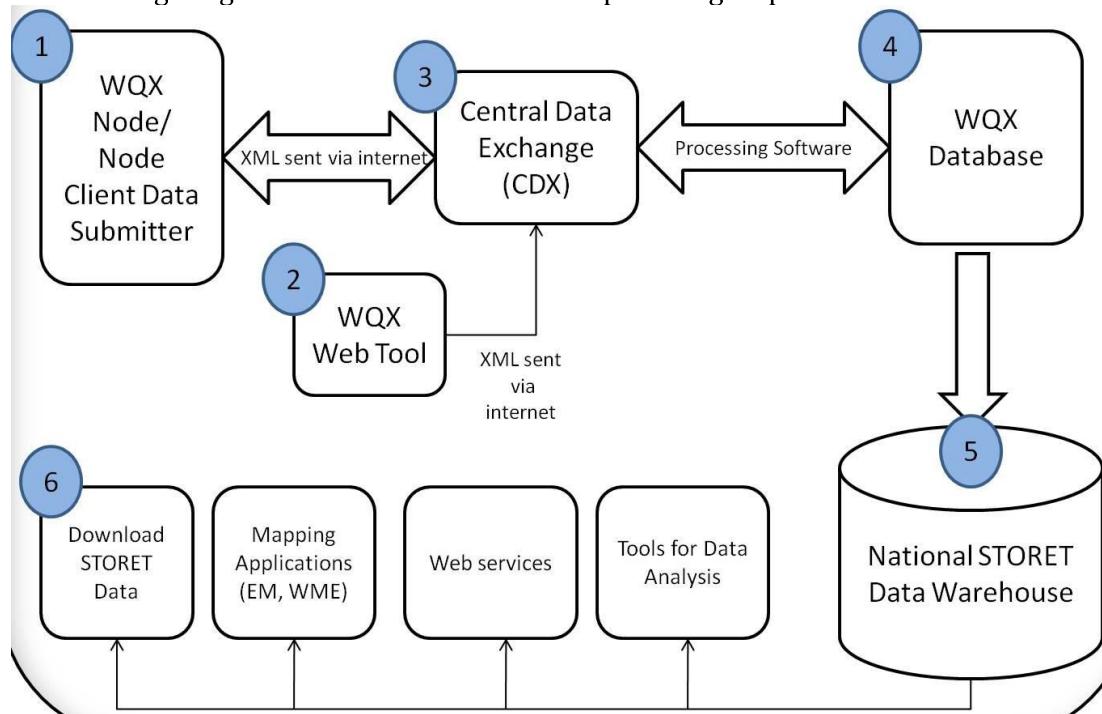
Create a blank invoice table as shown below.

- Use your own name
- Use your own graphics and type of business
- Shade the cells as shown
- Save as "Invoice Table *your name*"

Your Sales company name		INVOICE						
 Street Address City, ST ZIP Code Phone Number , Web Address , etc.		DATE: INVOICE #:						
BILL TO:		SHIP TO:						
PO #	SALES PERSON	SHIP DATE	SHIP VIA		TERMS	ORDER DATE		
PRODUCT ID	DESCRIPTION		QTY.		UNIT PRICE	LINE TOTAL		
			SHIPPED	ORDERED	B/O			
Notes: <input type="text"/>						SUBTOTAL	-	
						TAX	5.00%	-
							SHIPPING	-
							TOTAL	-
							PAID	-
							TOTAL DUE	-
THANK YOU FOR YOUR BUSINESS! "BUILDING BEYOND YOUR EXPECTATIONS"								
http://www.InvoicingTemplate.com								

Activity 5:

Draw the figure given below. Use different shapes and group them.



Activity 6:

A flyer is a pamphlet, which is a form of paper advertisement intended for wide distribution in a public place, handed out to individuals or sent through the mail.

Consider you work at a company. Your boss has asked you to prepare a flyer that advertises company's major products and/or services.

Two sample flyers are given below.



4) Stage a2 (assess)

Assignment:

Deadline: at the start of next lab

Write a paragraph about yourself. Include information about where you're from, where you went to school, and anything else you feel is appropriate. The format of the paragraph should be left justified, single spaced with Times New Roman 12 pt font (no underline, bold or italics). The paragraph must contain at least 100 words

Assignment:

Deadline: at the start of next lab

Create a short report of 6 pages. Apply the following features:

- Header, Footer
- Headings, sub headings
- Images
- Table of contents
- References (also cite the references)