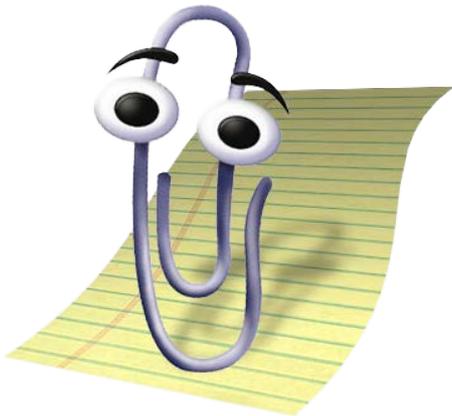


Word processing

Lecture 9 - COMPSCI111/111G SS 2020



Today's lecture

- ▶ Storing information using ASCII
- ▶ Word processor basics:
 - ▶ File formats
 - ▶ WYSIWYG
- ▶ Basic features of a word processor:
 - ▶ Font and paragraphs
 - ▶ Styles
 - ▶ Headers, footers, footnotes, endnotes
- ▶ Referencing

ASCII

- ▶ ASCII = American Standard Code for Information Interchange
- ▶ Associates English characters with numbers meaning text in documents can be stored as strings of binary
- ▶ Each ASCII code is 7 bits long, meaning ASCII can represent 128 characters
- ▶ There are other encoding schemes such as UTF-8 and Unicode

ASCII

► Excerpt of an ASCII table

A	65	L	76	W	87	g	103	r	114
B	66	M	77	X	88	h	104	s	115
C	67	N	78	Y	89	i	105	t	116
D	68	O	79	Z	90	j	106	u	117
E	69	P	80	...		k	107	v	118
F	70	Q	81	a	97	l	108	w	119
G	71	R	82	b	98	m	109	x	120
H	72	S	83	c	99	n	110	y	121
I	73	T	84	d	100	o	111	z	122
J	74	U	85	e	101	p	112		
K	75	V	86	f	102	q	113		

ASCII

- ▶ What is the ASCII code for 'EASY'?

E	A	S	Y
69	65	83	89

- ▶ What is the ASCII code for 'CompSci'?

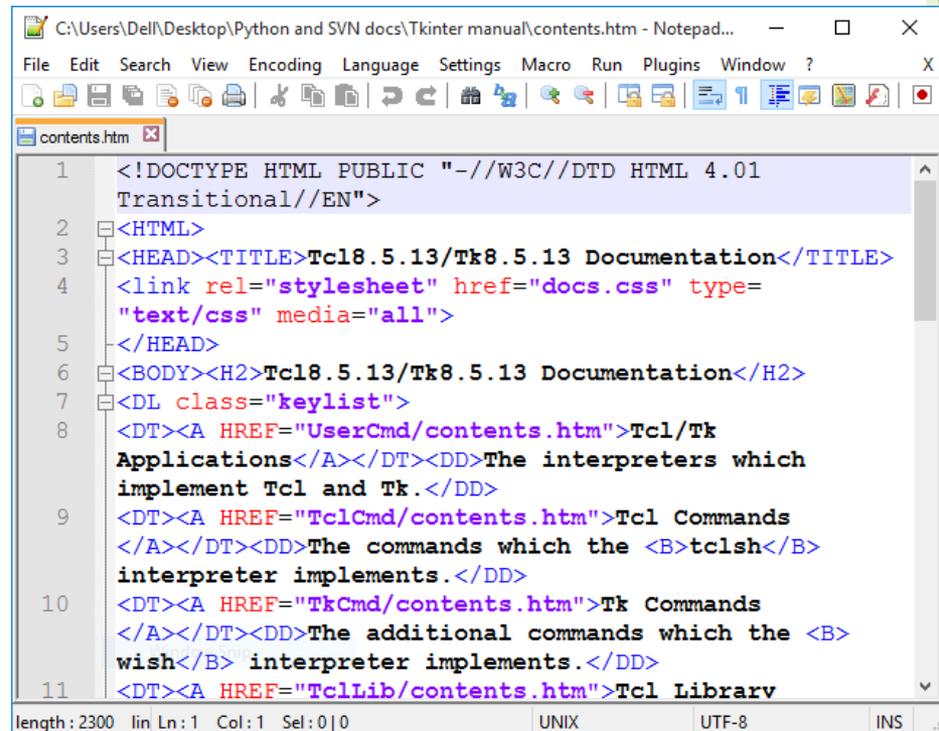
C	o	m	p	S	c	i
67	111	109	112	83	99	105

ASCII

- ▶ Text you type:
YES
- ▶ The text in ASCII:
89 69 83
- ▶ Binary stored by the computer:
1011001 1000101 1010011

Text editors

- ▶ Application software that enables the user to edit text
- ▶ Text is stored using ASCII or another encoding scheme
- ▶ Used to edit:
 - ▶ Text files (.txt)
 - ▶ Configuration files
 - ▶ Source code
- ▶ Examples:
 - ▶ Notepad
 - ▶ Notepad++
 - ▶ TextPad



The screenshot shows a Notepad++ window titled "C:\Users\Del\\Desktop\Python and SVN docs\Tkinter manual\contents.htm - Notepad...". The window displays HTML code for a documentation page. The code includes a DOCTYPE declaration, a title "Tcl8.5.13/Tk8.5.13 Documentation", a link to a stylesheet, and a list of links to other documentation pages. The status bar at the bottom indicates "length : 2300 lin Ln : 1 Col : 1 Sel : 0|0" and "UNIX UTF-8 INS".

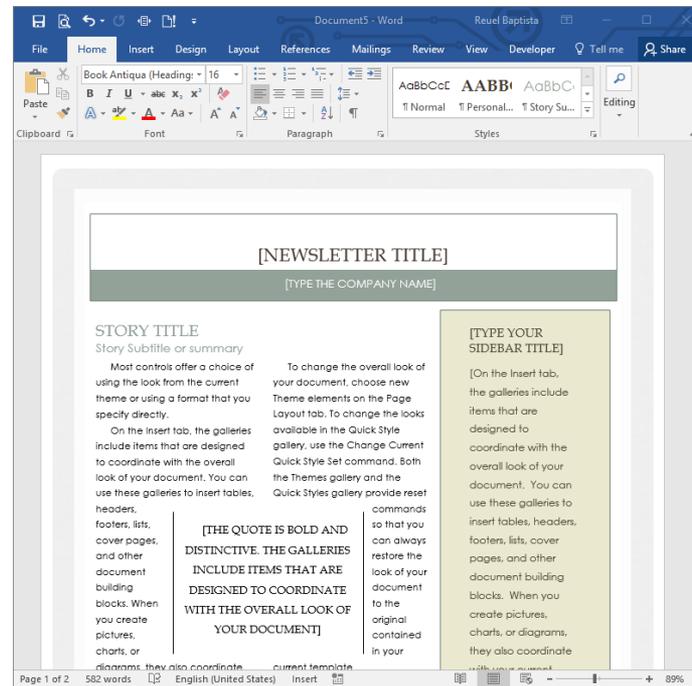
```
1 <!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01
  Transitional//EN">
2 <HTML>
3 <HEAD><TITLE>Tcl8.5.13/Tk8.5.13 Documentation</TITLE>
4 <link rel="stylesheet" href="docs.css" type=
  "text/css" media="all">
5 </HEAD>
6 <BODY><H2>Tcl8.5.13/Tk8.5.13 Documentation</H2>
7 <DL class="keylist">
8 <DT><A HREF="UserCmd/contents.htm">Tcl/Tk
  Applications</A></DT><DD>The interpreters which
  implement Tcl and Tk.</DD>
9 <DT><A HREF="TclCmd/contents.htm">Tcl Commands
  </A></DT><DD>The commands which the <B>tclsh</B>
  interpreter implements.</DD>
10 <DT><A HREF="TkCmd/contents.htm">Tk Commands
  </A></DT><DD>The additional commands which the <B>
  wish</B> interpreter implements.</DD>
11 <DT><A HREF="TclLib/contents.htm">Tcl Librarv
```

Word processors

- ▶ Application software that enables the user to edit text *and* add formatting to the text
- ▶ Files created by word processors store text and formatting information according to a format
 - ▶ Proprietary standards, eg. Word file format (.doc)
 - ▶ Open standards, eg. OpenDocument format (.odt)
 - ▶ Microsoft products now use the Office Open XML format, arguably an open standard
- ▶ Examples:
 - ▶ Microsoft Word
 - ▶ Apple Pages
 - ▶ OpenOffice Writer

WYSIWYG

- ▶ What You See Is What You Get - WYSIWYG
- ▶ The document created using the word processor's GUI is the same as the document that comes from the printer



WYSIWYG

- ▶ Computer code is usually not WYSIWYG (eg. wiki markup, LaTeX code, HTML)

What you see

```
=Damir Azhar=

I am a '''COMPSCI 111''' lab tutor
and lecturer as well as a PhD student.

==About Me==

I am interested in:
*videogames
*music
*books
*films

For more information on the COMPSCI
111 course coordinator visit
[[User:Acam001|Ann's Page]].
```

What you get

```
Damir Azhar

I am a COMPSCI 111 lab tutor and lecturer as well as a PhD
student.

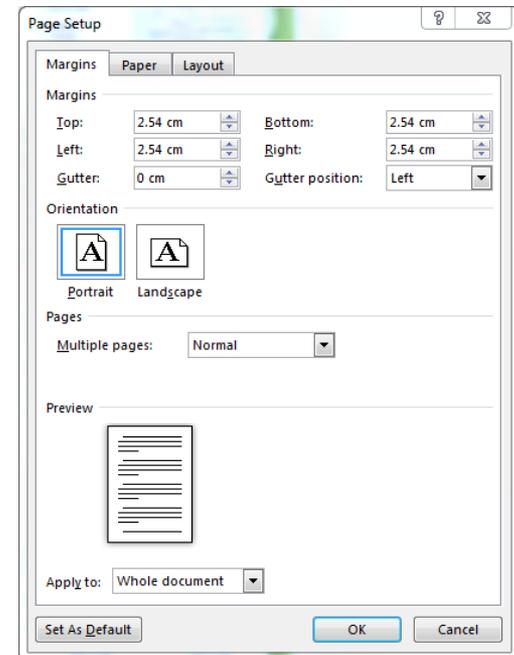
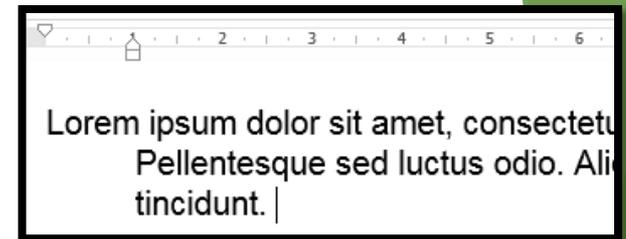
About Me

I am interested in:
  ■ videogames
  ■ music
  ■ books
  ■ films

For more information on the COMPSCI 111 course coordinator
visit Ann's Page.
```

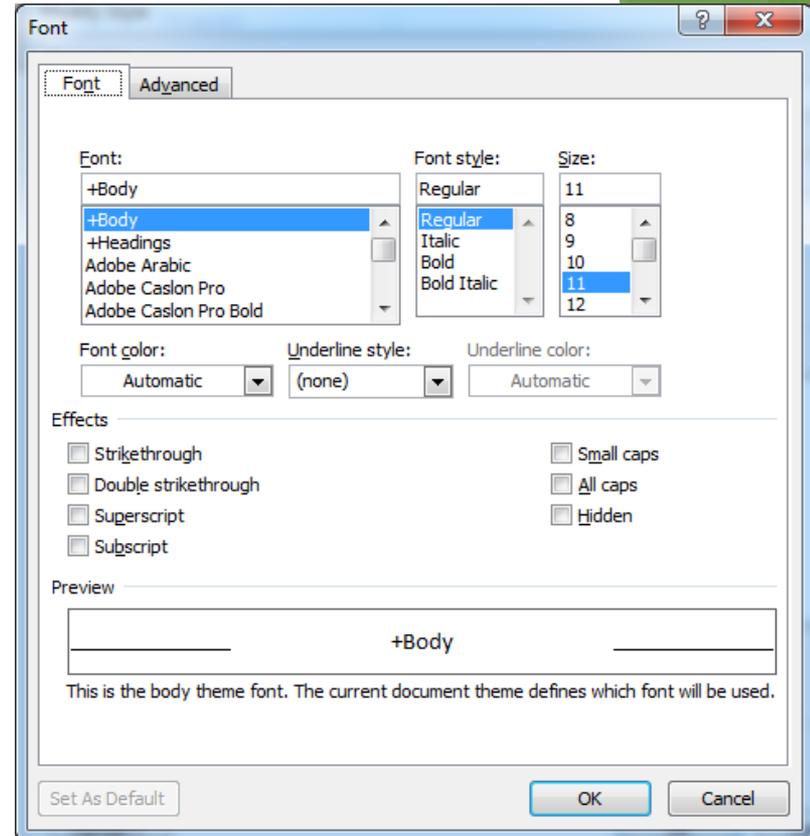
Basic features

- ▶ Editing text:
 - ▶ Spelling and grammar checker
 - ▶ Aligning text using the margins and ruler
- ▶ Clipboard:
 - ▶ Cut, copy, paste
- ▶ Formatting:
 - ▶ Changing font
 - ▶ Change document settings
 - ▶ Format paragraphs



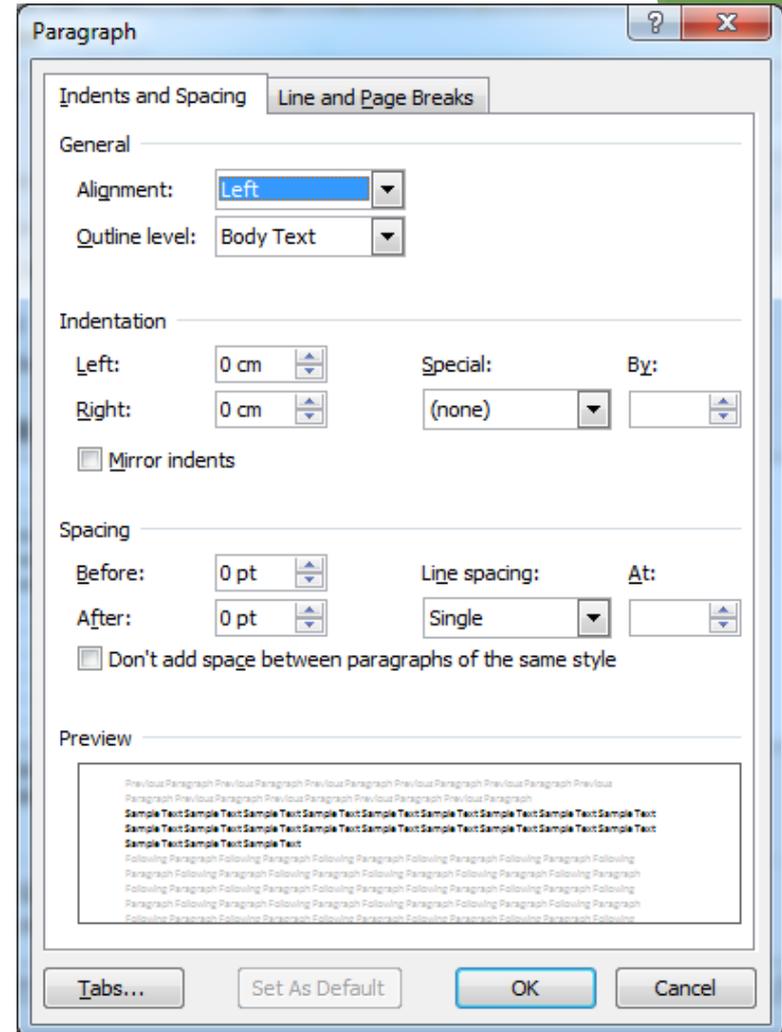
Font

- ▶ Font window lets you change:
 - ▶ Font
 - ▶ Style (bold, italic)
 - ▶ Size (in points)
 - ▶ Colour
 - ▶ Effects (strikethrough, subscript superscript)



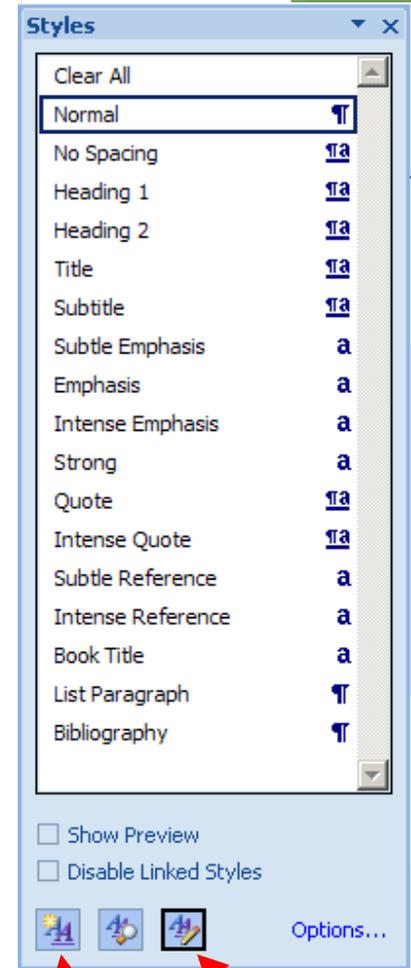
Paragraphs

- ▶ Paragraph window lets you change:
 - ▶ Alignment
 - ▶ Indentation
 - ▶ Spacing
 - ▶ The 'Line and Page Breaks' tab let you adjust how the paragraph behaves between pages



Styles

- ▶ A named group of formatting changes that can be applied to text in the document
- ▶ Advantages:
 - ▶ Gives the document a consistent appearance
 - ▶ Makes applying formatting faster:
 - ▶ Select the content and apply the style.
 - ▶ Modified the style and all content using the style have their formatting updated automatically.



**Create a
new style**

**Manage
existing
styles**

Headers and footers

- ▶ Header: content found in the top margin of every page

Printed for Damir Azhar

Video Games

Video games are a form of interactive entertainment; they are electronic games that enable a user (gamer) to generate visual feedback on a video device via interaction with a user interface. Although the "video" part of "video games" was originally a reference to raster display devices, this has now been generalized to any display type.

- ▶ Footer: content found in the bottom margin of every page

earliest known video game. The game was a missile simulator inspired by radar displays from World War II. Analogue circuitry was used to control a CRT beam and position a dot on the

¹ Based heavily on material from Wikipedia

Video games eventually moved from running on cathode ray tube devices to university main frame computers, primarily in the United States. Due to the fact that video game development was

Footnotes and endnotes

► Footnote:

- small note located at the bottom of *a* page.
- Provides more information about something in the main text.

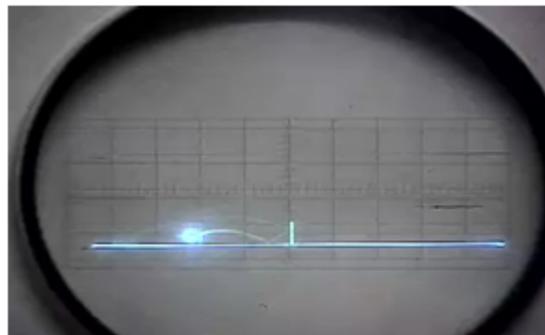
HISTORY¹

Video games originated from early cathode ray tube based missile defense games in the late 1940's. These programs were adapted into other simple games during the 1950's. By the late 1950's and through the 1960's, more video games were developed (generally running on mainframe computers), gradually increasing in sophistication and complexity. Eventually video games became available on different platforms: arcade, mainframe, console, personal computer and later handheld devices.

The Beginning

The question of what is the first video game is a controversial one, but it is generally thought that the "Cathode Ray Tube Amusement Device" patented in 1947 and released in 1948 is the earliest known video game. The game was a missile simulator inspired by radar displays from World War II. Analogue circuitry was used to control a CRT beam and position a dot on the

screen and screen overlays were used as targets since the device was not able to render graphics.



Other video games based on cathode ray tube hardware followed including "OXO" (a tic-tac-toe game), and "Tennis for Two" (shown on the previous page).

1950's and 1960's

Video games eventually moved from running on cathode ray tube devices to university main frame computers, primarily in the United States. Due to the fact that video game development was

¹ Based heavily on material from Wikipedia

Footnotes and endnotes

- ▶ Endnote: text that appears at the *end* of the document

Lorem ipsum dolor sit amet, consectetur adipiscing elit.ⁱ

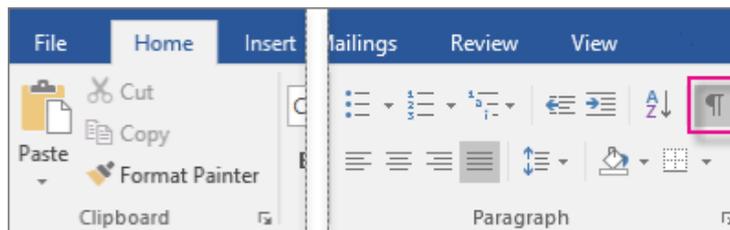
Suspendisse elit tellus, feugiat sed nibh eget, eleifend varius diam. Fusce dictum, magna eu varius tincidunt, velit arcu scelerisque arcu, in laoreet eros neque vitae velit. Nulla sed vul

dolor orci, in euismod mauris maximus id. Aenean tempus libero a dolor elementum, ac egestas diam venenatis. Nunc ut sem a elit vehicula malesuada. Nam rhoncus, purus non cursus tristique, odio ante condimentum turpis, at sagittis

ⁱ This material is mostly from Wikipedia

Formatting symbols

- ▶ Formatting symbols are non-printing characters that are used to mark spaces, paragraphs and page breaks etc. in a document



- ▶ Examples of formatting symbols:

Lorem ipsum dolor sit amet, consectetur adipiscing elit. ¶



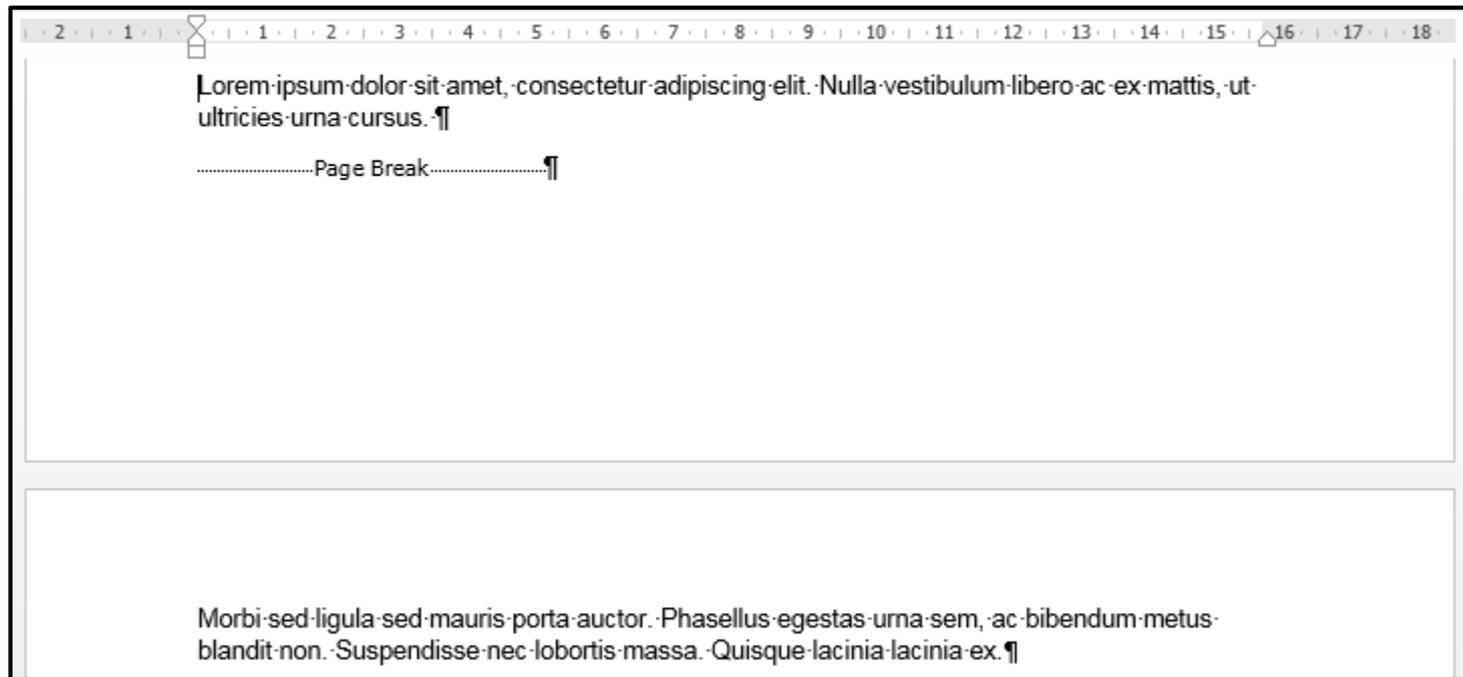
Suspendisse elit tellus, feugiat sed nibh eget, eleifend varius diam. ¶



Material from Wikipedia ¶

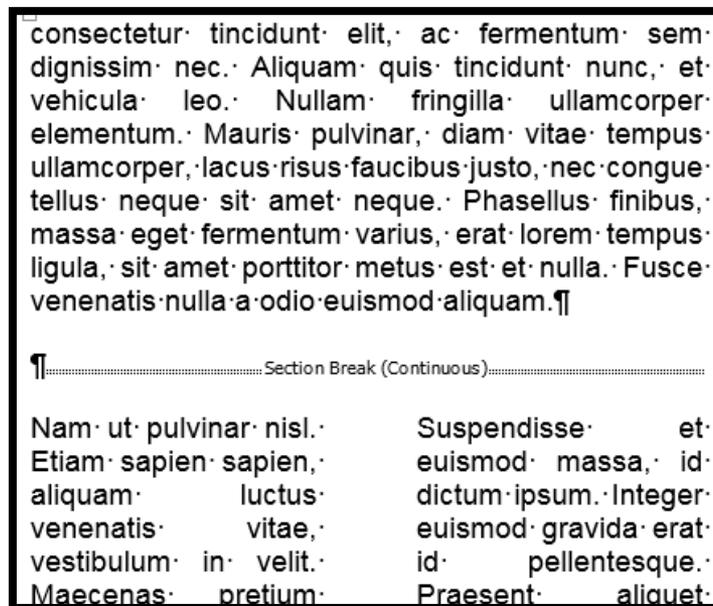
Page breaks

- ▶ Page breaks mark where the current page ends. Anything below the page break is moved to the next page of the document



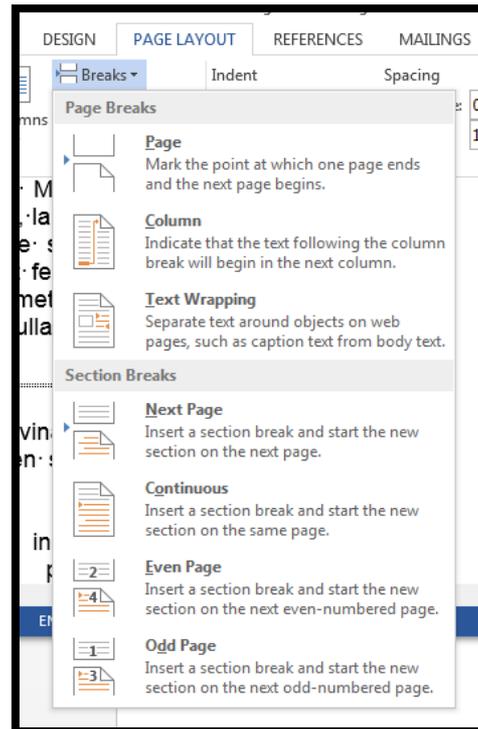
Section break

- ▶ Section breaks mark the point where one section ends and a new section begins
- ▶ Individual sections can have their own formatting



Section break

- ▶ Two kinds of section break:
 - ▶ Continuous: the new section begins on the same page as the original section
 - ▶ Next page: the new section begins on a new page after the original section



Plagiarism

- ▶ Involves taking another person's ideas, words or inventions and presenting them as your own.
- ▶ It includes:
 - ▶ paraphrasing or summarizing another person's work
 - ▶ using graphs, images or other media from someone else's work
- ▶ This is a serious breach of academic integrity
 - ▶ See the University's academic integrity [policy](#)
- ▶ All material, whether directly quoted, summarised or paraphrased, *must be acknowledged properly*.
- ▶ [Referencite](#) has a good guide on when and how to reference

References and citations

► Citation

- Tells readers where the information came from.
- Within the text.

fledgling industry. There were several reasons for the crash, with most of the blame being attributed to the saturation of the market with hundreds of generally low quality titles (Kent, 2001).

► Reference

- Provides details about the source.
- Should enable reader retrieval of source.
- Found at the end of a document.

REFERENCES

Kent, S. L. (2001). *The ultimate history of video games: From pong to pokémon and beyond : The story behind the craze that touched our lives and changed the world* (1st ed.). Roseville, Calif.: Prima Pub.

RefWorks

- ▶ Online reference manager; used to manage references and insert them into your documents
- ▶ Bibliographic information can be entered manually, loaded from the UoA library catalogue or loaded from a database
- ▶ References are generated in accordance with a wide variety of referencing styles



RefWorks

▶ Advantages:

- ▶ Web-based, so you can access it from any computer, regardless of operating system
- ▶ Supports a range of databases and referencing styles
- ▶ The Write-n-Cite plugin for Word allows you to insert references directly from Refworks
- ▶ UoA students get a free Refworks account:
<https://www.library.auckland.ac.nz/refworks/>

RefWorks

The screenshot displays the ProQuest RefWorks interface. At the top, the header includes the ProQuest logo, the text "RefWorks", and user information: "University of Auckland", "Language (en)", and "Damir Azhar". A toolbar is located below the header, containing icons for adding documents, folders, sharing, quotes, deleting, tagging, a menu, and search. A list of documents is shown below, with a red box highlighting a specific entry. The entry is titled "Solutions for Chapter 7 Problem 7P" and is associated with the folder "CS111 Lab 03". The left sidebar contains navigation icons, with the folder icon highlighted by a red box.

ProQuest[®]
RefWorks

University of Auckland Language (en) ▼ Damir Azhar ▼

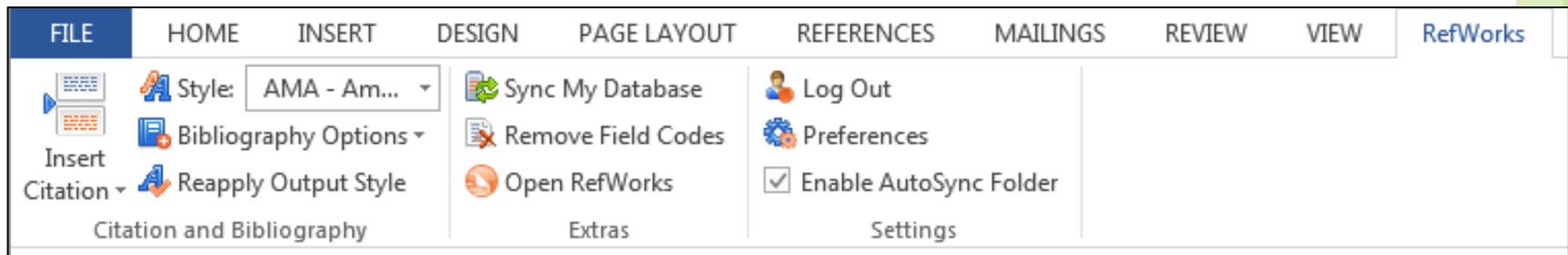
+ [Folder] [Share] [Quote] [Delete] [Tag] [Menu] [Search]

Select all All Documents sorted by date added ▼

- Active Learning
[Folder] Active Learning ...
- Does Active Learning Work? A Review of the Research
[Folder] Active Learning ...
- Solutions for Chapter 7 Problem 7P
[Folder] CS111 Lab 03
- Data structures and abstractions with Java
[Folder] CS111 Lab 03 [Tag] Data structures ... [Tag] Java (Computer ...

Write-N-Cite

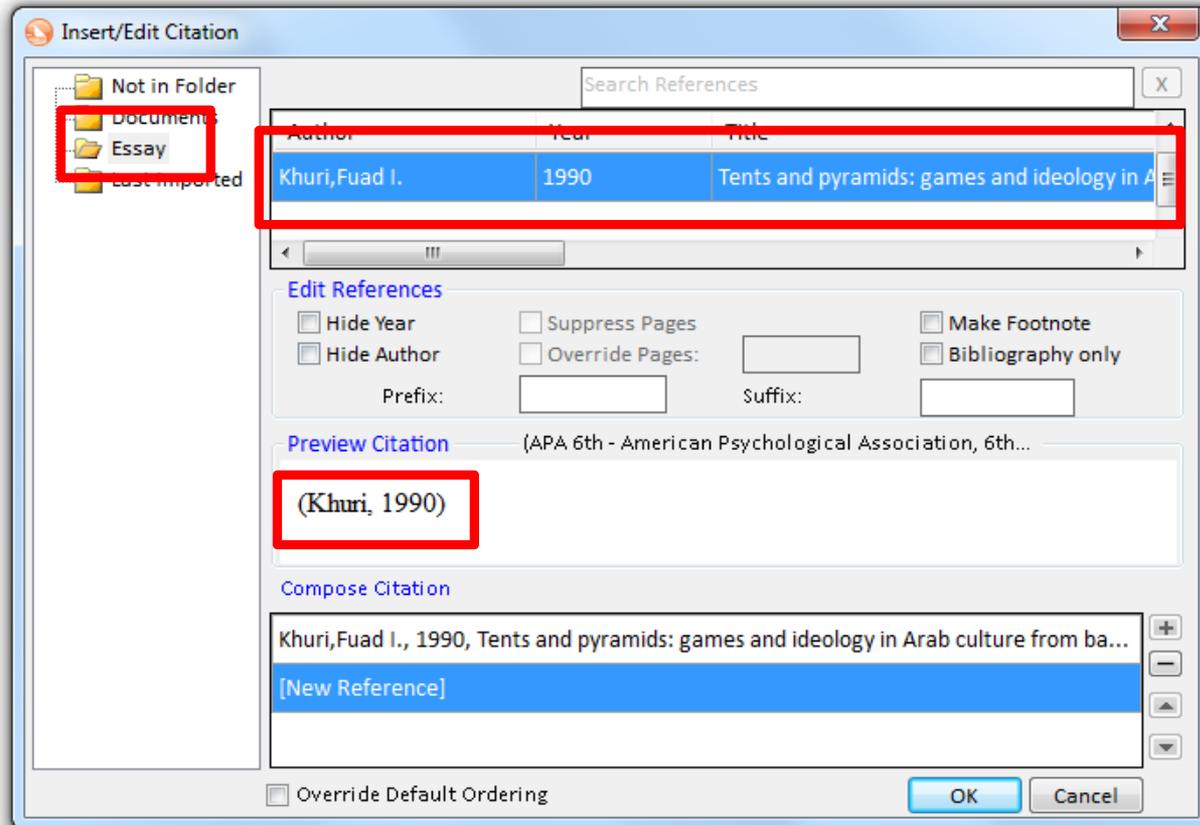
- ▶ A plugin for Microsoft Word that enables the user to insert references when working in their document
- ▶ Refworks can be accessed by clicking on the 'ProQuest' or 'Refworks' tab
 - ▶ Using Refworks, you can insert citations and bibliographies



Write-N-Cite

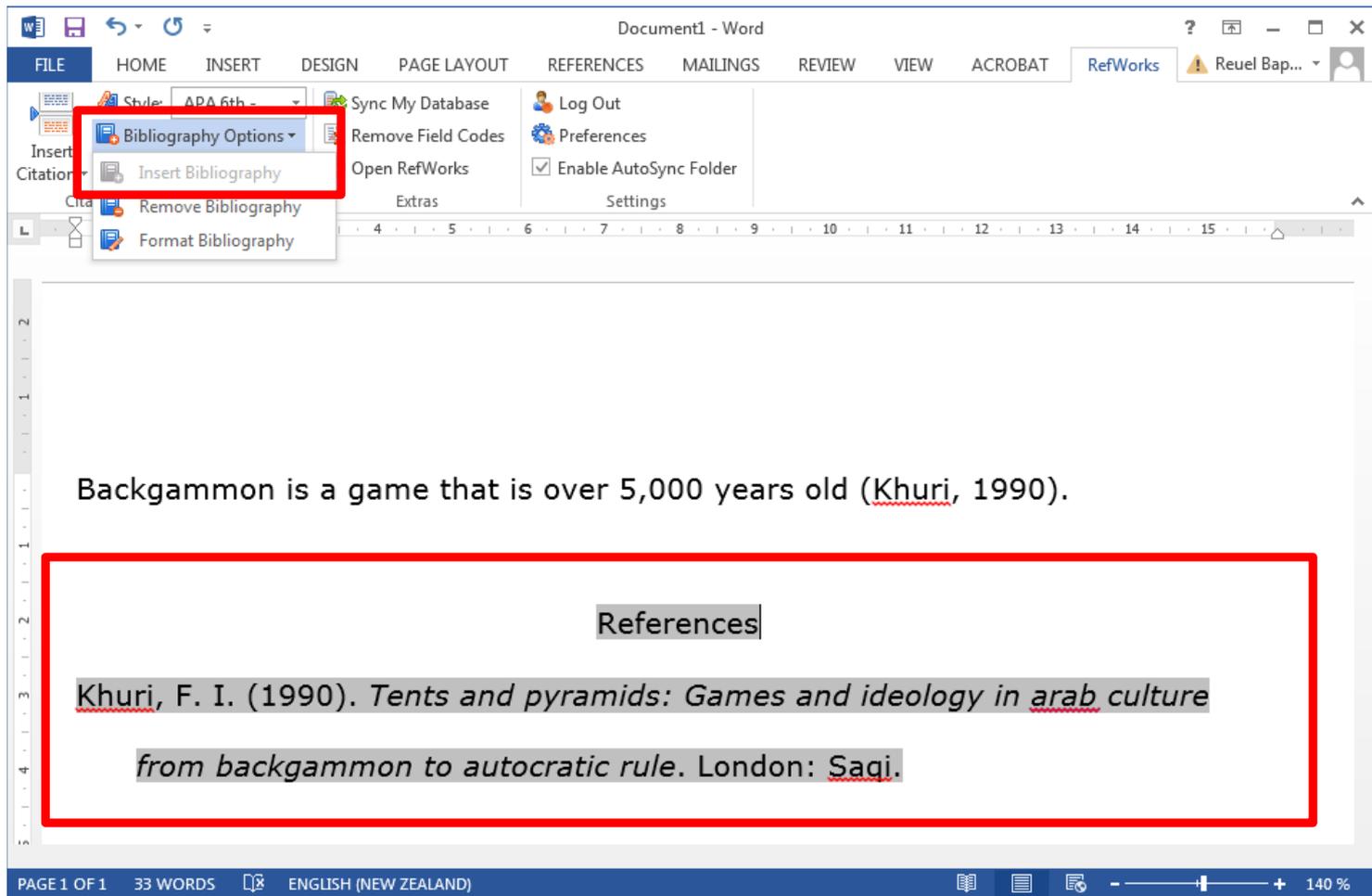
► Inserting a reference using Refworks

Backgammon is a game that is over 5,000 years old (Khuri, 1990).



Write-N-Cite

► Inserting a bibliography using Refworks



The screenshot shows the Microsoft Word interface with the RefWorks ribbon active. The 'Bibliography Options' dropdown menu is open, highlighting 'Insert Bibliography'. The document text reads: 'Backgammon is a game that is over 5,000 years old (Khuri, 1990)'. Below this, a red box highlights a 'References' section containing the following entry: 'Khuri, F. I. (1990). *Tents and pyramids: Games and ideology in arab culture from backgammon to autocratic rule*. London: Saji.'

Document1 - Word

FILE HOME INSERT DESIGN PAGE LAYOUT REFERENCES MAILINGS REVIEW VIEW ACROBAT RefWorks Reuel Bap...

Style: APA 6th

Sync My Database Log Out

Remove Field Codes Preferences

Open RefWorks Enable AutoSync Folder

Extras Settings

Insert Bibliography

Remove Bibliography

Format Bibliography

Backgammon is a game that is over 5,000 years old (Khuri, 1990).

References

Khuri, F. I. (1990). *Tents and pyramids: Games and ideology in arab culture from backgammon to autocratic rule*. London: Saji.

PAGE 1 OF 1 33 WORDS ENGLISH (NEW ZEALAND) 140 %

Exercises

What is the ASCII code for the word **Midterm**?

- (a) 108 104 99 115 100 113 108
- (b) 77 73 68 84 69 82 77
- (c) 109 105 100 116 101 114 109
- (d) 78 74 69 85 70 83 78
- (e) 77 105 100 116 101 114 109

Exercises

Which of the following statements is **TRUE**?

- (a) Using styles makes formatting faster and can give a document a consistent appearance.
- (b) A style is a named group of formatting decisions.
- (c) Using a text editor for programming is typically not WYSIWYG.
- (d) Sections, separated by a section break, can be independently formatted.
- (e) All of the above.

Exercises

Which of the following statements is FALSE?

- (a) Notepad++ is an example of a text editor.
- (b) An endnote is text that appears at the end of the document.
- (c) A footnote is content found in the bottom margin of every page.
- (d) Speed and consistency are two advantages of user defined styles.
- (e) Programming code is usually not WYSIWYG.

Summary

- ▶ Overview of the ASCII code
- ▶ Distinction between text editors and word processors
- ▶ Basic features of a word processor
- ▶ Referencing using Refworks