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

Excerpt of an ASCII table

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

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

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

- The document created using the word processor’s GUI is the same as the document that comes from the printer

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.

**Headers and footers**
- Header: content found in the top margin of every page
- Footer: content found in the bottom margin of every page
Footnotes and endnotes

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

**Example of a Footnote:**

> Game development began in the late 1950s and early 1960s. The first true video games were developed for the consoles of the era. In the 1950s and early 1960s, designers experimented with electronic displays and simple games were developed.

**Explanation:**
> This material is mostly from Wikipedia.

Footnotes and endnotes

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

**Example of an Endnote:**

> Lorem ipsum dolor sit amet, consectetur adipiscing elit.

**Explanation:**
> 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:**

<table>
<thead>
<tr>
<th>Formatting Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Page breaks</td>
<td>Mark where the current page ends. Anything below the page break is moved to the next page of the document.</td>
</tr>
</tbody>
</table>

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

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.

Referencing 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

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/](https://www.library.auckland.ac.nz/refworks/)

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).
```

- Inserting a bibliography using Refworks

```
References
```

Exercises

- What word has been represented using ASCII?
  
<table>
<thead>
<tr>
<th>C</th>
<th>L</th>
<th>A</th>
<th>S</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td>67</td>
<td>108</td>
<td>97</td>
<td>115</td>
<td>115</td>
</tr>
</tbody>
</table>

- What are formatting symbols and what are they used to mark?
  - Invisible characters used to mark spaces, paragraphs and page breaks

- Name one advantage of using styles
  - Any of: consistency, easy to apply, quick to change

Summary

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