Week 3: Toolbox

Keyboard Shortcuts

Today's Date

Today's date – **CTRL + ; | CMD + ;**

This enters the date as a fixed value, unlike using the **TODAY** function which is dynamic. Remember that the **TODAY** function is a volatile function and will take up calculation resources as it re-calculates every time you make a change in your spreadsheet.

Terminology

Non-Printing Character

This is a character that is there but it isn't displayed when you print and you can't see it. E.g. a space.

Binary

This is low-level language that the computer understands. This contains 0's and 1's.

Decimal

This represents the base 10 number system e.g 13, 32. This is easier to understand than binary and this is used instead.

ASCII

American Standard Code for Information Interchange. The ASCII table provides a mapping between well-understood characters like a space and shows how this is represented in binary, the language that the computer understands.

Some Useful Data Cleaning Functions

ISBLANK: This is a logical function that tests whether a cell is blank. E.g. **ISBLANK(A1)** will return **TRUE** if **A1** is empty. A cell containing a space may appear to be empty but is recognised as containing a character by Excel.

TEXT: This is a function that returns takes a number in a specified number format and returns text in a specified text format. E.g. if **J1** contains a date recognised by Excel, **TEXT(J1, "mmmm")** will return the full name of the month.

DATE: This function can be used to combine three values to form a date that Excel recognises.

TRIM: Removes leading, trailing and extra spaces. **TRIM** will remove double spaces between words but won't removes single spaces.

CLEAN: This is a function that removes some, but not all, of the non-printing characters.
The **CLEAN** function removes the first 32 non-printing characters from the ASCII code (those with decimal value 0 to 31).

ISNUMBER: This is a logical function that returns **TRUE** if the argument is numeric.

ISTEXT: This is the text analogue of **ISNUMBER**.

LEN: This is a function that returns the number of characters contained in a cell including those that aren't visible.

CODE: This is a function that takes a character as an argument and converts it to its decimal equivalent (ASCII value).

SUBSTITUTE: This is the function equivalent of Find and Replace.

CHAR: This function is the opposite of **CODE** - this takes a decimal value and returns the character it represents.

VALUE: This function turns text into numeric values. This can only be applied to text that contains numbers. If there are any other characters, the function doesn't work.

Ninja Tips

Similar to the ASCII codes there also exists Unicode. Unicode covers a larger number of characters than ASCII, including characters from languages other than English. Use the function **UNICODE(text)** to return the number (code) equivalent for the first character of the specified text. For example, **UNICODE("C")** will return the number corresponding to the letter **C**.