CPSC203 – Introduction to Problem Solving and Using Application Software

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Introduction

- Doing a custom calculation using a formula.

- Using a nested If-Then statements.

- Summarizing data in a Pivot table.

- Using a Lookup tables.

Cell Referencing

- A cell, in the same worksheet, is referenced by column and row, e.g. F11.

- A cell in a different worksheet is referenced by sheet name, exclamation point, and cell reference, e.g. Sheet2!A1.

Custom Calculation

- Select the cell in which you would like the evaluation of the custom calculation to be displayed.

- In the Function toolbar, enter the custom calculation by starting with the equals symbol '='.

- After entering the custom calculation, press the 'enter' key to evaluate the function. The result will appear in the cell that was originally selected.

If-Then Statement

- An If-Then statement consists of three parts: logical test, true statement, and false statement.

- Syntax :
  =IF(<logical statement>, <true statement>, <false statement>)

- Example:
  =IF(A2 > 2, "Pass", "Fail")
  =IF(B2="Cat", "Kitten", IF(B2="Dog", "Puppy", "Other"))

Pivot Table

- Pivot tables provide a mechanism to summarize data, and as a result, makes it easier to analyze and present data.

- Creating a pivot table:
  - Step 1: select a range of cells.
  - Step 2: select the 'PivotTable' icon.
  - Step 3: specify the destination of the Pivot table.
  - Step 4: format the Pivot table.

Lookup Function

- Lookup functions can be used to find values (data) in a data table.

- Syntax:
=Lookup(lookup_value, lookup_vector, result_vector)
=Lookup(lookup_value, array)

- Example:
=LOOKUP(A2, D2:D5, E2:E5)

=LOOKUP(A2, {300, 500, 1000, 10000}, {5, 10, 20, 50})