

# CPSC 203 Tutorial

Spreadsheet :

Week1      Lab2

# Topics Covered Before

- Putting data in cell.
- Using **Autofill** feature.
- Formatting cell(s).
- Performing basic statistical calculations.

# Today's Agenda

- Complex calculations.
- Writing conditional statements.
- Pivot Table (Summary table).
- Lookup table.

# Complex Calculation

- In addition to the functions provided in Excel, custom function can be used.
- The following steps show how to perform a custom calculation:
  - Step 1
    - Select the cell in which you would like the evaluation of the custom calculation to be displayed
  - Step 2
    - In the Function toolbar, enter the custom calculation by starting with the equals symbol '='.
  - Step 3
    - After entering the custom calculation, press the 'enter' key to evaluate the function. The result will appear in the cell that was originally selected.

# Custom calculation example

- Calculate the price of a single movie ticket that includes
  - 5% tax
  - \$1.5 surcharge

# Writing Conditional Statement

- Example: **If** the number is divisible by 2, **then** it is even, otherwise it is odd.
- Consists of three parts:
  - Logical test
  - True part (what if it is true)
  - False part (what if it is false)
- =IF(<logical statement>, <>true statement>, <>false statement>)

# Exercise

- Categorize movies in terms of the amount of money it made.
  - > 500000000 : Blockbuster
  - > 300000000 : Hit
  - > 100000000 : Success
  - < 100000000 : Flop

# Pivot table

- Aka “Summary table”
- Useful when dealing with large amount of data
- Provides a mechanism to summarize the data.
  - Makes it easier to analyze and present the data

# Creating Pivot table

- Step 1: select a range of cells, or table.  
Important Note: make sure the range of cells have column headings.
- Step 2: select the 'PivotTable' icon under the 'Tables' contextual menu as part of 'Insert' in the main toolbar.
- Step 3: in the new panel that appears make sure that the selected range of cells or table is correct, and specify the destination of the Pivot table

# Exercise

- Summarize data for Total, Average, and Max movie sales in a pivot table, organized with movie studios along the top row and movie genres along the left column

# Lookup Functions

- Lookup functions can be used to find values (data) in a data table.
- Syntax:
  - =Lookup(lookup\_value, lookup\_vector, [result\_vector])

lookup\_value: is the value to search for in the lookup\_range

lookup\_vector: a sorted list

result\_vector: should be of same size as lookup\_vector

# Lookup Function

- In case of equality, a match is found
- If ( $>$ ), next smallest value is found.
- If ( $<$ ), if the value is less than any value  $N/A$  is returned.

# Exercise

- Convert the 'if statement' into a lookup function.

# Recap

- Complex/Custom calculations
- If-Then statement
- Pivot/Summary Table
- Lookup function and Lookup table.