Introduction to Excel and Data Organization

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Data Types Trivia: Question 1

Open the folder “files_for_FYW” sent via email and open each file. What are the differences between them, especially for how the data is presented and organized?

- “Csv.csv” is a csv–or comma separated value–file
- “Text” is a .txt file, which is unformatted
- “wordDoc” is a .docx file and is formatted
- “reflectionTemplate.xlsx” is an Excel file

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Data Types Trivia: Question 2

What are some indicators of the file type?

- The letters after the period (.csv, .txt, .doc, etc)
- The icon (a Word Doc icon looks like versus the Excel icon)
- What programs can open the files
- What the data actually looks like when you open the file

Data Types Trivia: Question 3

Why is it important to know your file types?

- **To figure out what files can open with what program**s. For example, you can open a .txt file with Word, but you cannot open a .doc with a Text Editor. You can open an .xslx with Excel), but not a text editor; you can open a .csv file in both Excel and in a text editor!
- **To decide methods for actually analyze and manipulate that data**

What is Excel?

Excel is a program that is used to create and edit spreadsheets. In Excel, data is organized into rows and columns; this data can be presented and analyzed using Excel's functions, such as pivot tables, charts, formulas, and more.

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Why Excel?

Excel is an *excel*lent way to store, organize, and analyze data and metadata (data about data). Although it is particularly useful for budgeting, invoicing, and finance because many of its functions revolve around numerical data, Excel is used quite often to across the disciplines.

From a humanities and social sciences perspective, you might use Excel to pursue research interests, particularly for files that are provided as spreadsheets (census, bibliographies, and more).

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My Case Study: Learning Excel in Grad School

Excel and Google Sheets have become primary programs that I use *daily* in my graduate life (English PhD student). Here are just some of the ways that they have helped organize my administrative work and my research:

- Budgeting for planning events and for my personal life
- Collaborative task-tracking (Google Sheets is especially helpful for this)
- Outlining content to be written for a website
- Analyzing and data stored in .csv (comma separated value) files
- Collecting and analyzing survey information
- Learning programing languages like R and Python

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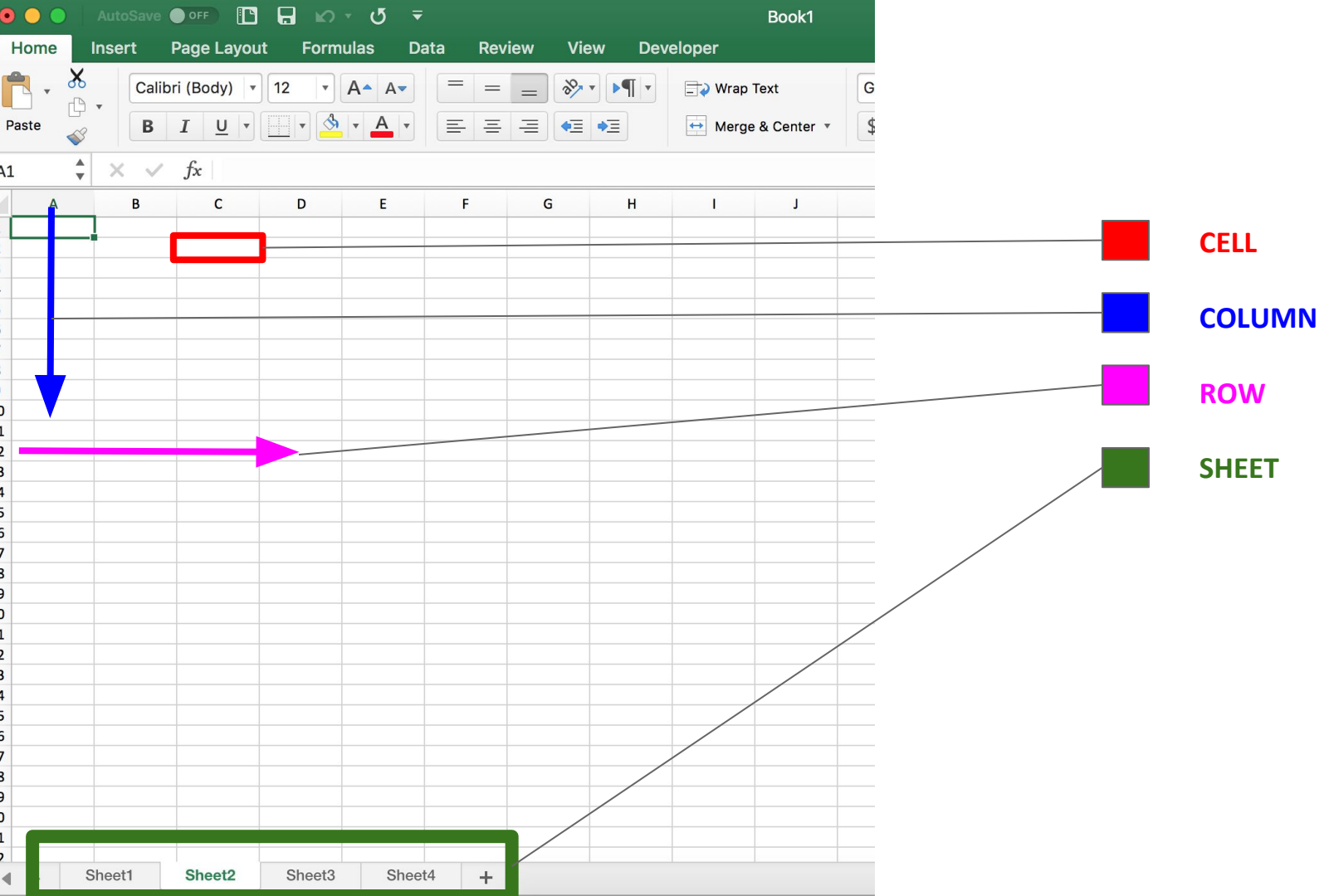
Excel vocabulary

- **Workbook:** The overall Excel file that you are creating
- **Sheet:** Excel workbooks can consist of *multiple sheets* (add at the bottom of the program) that you can rename
- **Row**: numerical (horizontal)
- **Column**: alphabetical (vertical)
- **Cell**: each box is called a cell and has an ID based on its row and column placement (A1, A2, A3, etc).


AutoSave
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Book1
Home
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Page Layout
Formulas
Data
Review
View
Developer
Paste
Calibri (Body)
12
Wrap Text
Merge & Center
A1
fx
A
B
C
D
E
F
G
H
I
J
Sheet1
Sheet2
Sheet3
Sheet4
CELL
COLUMN
ROW
SHEET

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Your Reflection Sheet

Benefits of using Excel:

A) help you become familiar with Excel and some of its functions

B) organize your reflection and come up with different approaches to reflecting on your experience

C) visualizing the data you create using Excel features and other tools

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Excel Functions

In this template, I used several different functions to show some of the potentials of Excel. You do not need to use these all exactly for your final project, but I highly recommend playing around with them. Functions:

- Conditional Formatting: Providing conditions to how information is presented
- Data Validation: Choosing which data is allowed and is not allowed to be in particular cells/rows/columns
- Wrap Text: See the entire text in one cell
- Format as Table: Create a table out of your spreadsheet so you can choose specific data

Live Demonstration

Open up the Excel file “reflectionTemplate.xlsx”

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Your turn!

1. Create a new workbook (File > New)
2. Start thinking about how you want to structure **your** reflection data. The data I inputted was based on a previous class discussion of yours, but you can get creative here! What kind of information do you want to capture and remember? How will you do that!
3. Ask questions as needed

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Wrap-up and Contact Information

The remainder of the slides have links to Microsoft Office's documentation so you can follow the steps on your own time. This way, you can do your own research, figure out what functions might work for you in this project, and decide how you want to organize your reflection data.

Feel free to email me with questions:

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Data Validation

https://support.office.com/en-us/article/Apply-data-validation-to-cells-29FECBCC-D1B9-42C1-9D76-EFF3CE5F7249

Conditional Formatting

https://support.office.com/en-us/article/Use-formulas-with-conditional-formatting-FED60DFA-1D3F-4E13-9ECB-F1951FF89D7F

Pivot Tables

https://support.office.com/en-us/article/Create-a-PivotTable-to-analyze-worksheet-data-A9A84538-BFE9-40A9-A8E9-F99134456576

Creating Charts

https://support.office.com/en-us/article/video-create-a-chart-4d95c6a5-42d2-4cfc-aede-0ebf01d409a8