Cloud Computing:

Cloud computing refers to the remote storage of files. This means that instead of being saved on your hard drive, files are saved using a web-based service.

The advantage of saving files to the cloud is that the files are accessible wherever you have an Internet connection. Cloud computing is often used to back up important files. Many cloud services also make working collaboratively easy.

Google’s version of cloud computing is called Google Drive. Google Drive has a relatively simple design and is free to use. The website for Google Drive is drive.google.com. Create an account or log in using your existing Google account. A Gmail account is a Google account, so a Gmail username and password will work for Google Drive as well.

Creating a Spreadsheet:

Spreadsheets can be created through Google Drive. The spreadsheets are similar to Microsoft Excel spreadsheets. Spreadsheets work well for data which is to be analyzed, summarized, or graphed. They are often used for budgets or as a way of totaling expenses.

Spreadsheets can easily be created and modified collaboratively.

To create a new spreadsheet, click on the red “New” button at the top left of the screen, and then click on “Google Sheets.” To name the spreadsheet, click on “Untitled spreadsheet” at the top of the screen, and then type the name of the spreadsheet. Press Enter on the keyboard to save the new spreadsheet name.

Terminology:

- A worksheet is one page within a file designated by a tab at the bottom of the screen. It is like a piece of paper in a ledger.
- A workbook is an entire file. It is like a ledger.
- A row is a horizontal series of cells designated by a number.
- A column is a vertical series of cells designated by a letter.
- A cell is the location of one piece of data.
- A cell reference is the location of a cell described by the intersection of a column and a row. For example, A1 is the cell reference for the cell at the top left of the spreadsheet.
- A formula is a math problem.
- The formula bar displays the data or formula within a selected cell. It is located at the top of the worksheet.

Getting Around a Worksheet:

- Move to a cell by clicking on the cell with the mouse.
- You can also use the arrow keys on the keyboard to move to a cell.
**Entering Data:**
- Enter data by typing numbers, letters, or words directly into a cell as follows.
  - Move to the cell using the arrow keys or mouse.
  - Type the letters, numbers, or words.
  - Press Enter on the keyboard.
- Data can also be entered by typing numbers, letters, or words in the formula bar as follows.
  - Move to the cell using the arrow keys or mouse.
  - Click in the formula bar.
  - Type the letters, numbers, or words.
  - Press Enter on the keyboard.

**Selecting Cells:**
- Select a cell by moving to it with the arrow keys or mouse.
  - A blue outline surrounds the selected cell.
  - The data or formula contained in the selected cell is displayed in the formula bar.
- Select multiple cells as follows.
  - A row of cells can be selected by clicking on the row number on the left side of the spreadsheet.
  - A column of cells can be selected by clicking on the column letter at the top of the spreadsheet.
  - The entire worksheet can be selected by clicking on the gray box in the top left of the spreadsheet.
- When multiple cells are selected, they are all surrounded by a blue outline and have a blue background.

**Formatting Data:**
- If you are unsure what effect a tool has, point at its icon to see a label.
- The undo button looks like a rounded arrow pointing to the left. Use this to undo the last change you made.
- The redo button looks like a rounded arrow pointing to the right. Use this to redo the last change which was undone.
- Formatting data refers to changing the appearance of the data but not the data itself.
- To format data, first select the cell or cells to be formatted and then change the format.
- Use the tools at the top of the screen to change the font as well as the font size.
- Clicking on the dollar sign at the top of the screen will format the data as currency.
- The number of decimal places displayed can be changed using tools at the top of the screen.
  - Click on the tool that has a left-pointing arrow under “.0” to decrease the number of decimal places displayed by one.
  - Click on the tool that has a right-pointing arrow under “.00” to increase the number of decimal places displayed by one.
  - The original data is not changed, regardless of the number of decimal places displayed. For example, if the data is 2.51 and the number of decimal places displayed is one, the data will be displayed as 2.5 but will act as 2.51 for all mathematical computations.
  - The number displayed is properly rounded to the number of decimal places displayed. For example, if the data is 5.19 and the number of decimal places displayed is one, the data will be displayed as 5.2 but will act as 5.19 for all mathematical computations.
Formulas:
- A formula is a math problem.
- Add a formula to a spreadsheet as follows.
  - Select the cell in which the answer will be displayed.
  - Type = .
  - Type the remainder of the formula using numbers or cell references.
  - Press Enter on the keyboard to display the result.
- SUM is the most common formula.
  - The result is the total of the numerical data in all of the referenced cells.
  - The cell references are input as a range (ex: B2:B5).
  - Entering into a cell “=SUM(B2:B5)” produces the sum of the data in cell B2 through and including the data in cell B5.

Finishing:
- Each time a change is made, the spreadsheet is saved automatically.
- To print the spreadsheet, click the printer icon at the top left of the screen and then click on “Print.”
- Close the spreadsheet by closing the browser tab.
- Open a spreadsheet as follows.
  - Click on the spreadsheet to select it.
  - Click on the three dots in the top right of the screen.
  - Hover over “Open With,” and click on “Google Sheets.”
- Sign out of Google Drive as follows.
  - Close all spreadsheets by closing the browser tabs in which they are contained.
  - Click on your e-mail address at the top right of the screen.
  - Click on “Sign out.”

Sharing:
- Sharing a spreadsheet allows others to view or edit the spreadsheet.
- Share a spreadsheet as follows.
  - Open the spreadsheet.
  - Click on the blue “Share” button at the top right of the screen.
  - Type in the e-mail addresses of people with whom you would like to share the spreadsheet.
  - Choose a permission level.
  - Click on the blue “Send” button.
- Edit a shared spreadsheet as follows.
  - Locate the shared spreadsheet by clicking on “Shared with me” on the left side of the screen.
  - Open the spreadsheet to be edited.
  - Edit the spreadsheet.
  - All changes are saved automatically and others viewing the spreadsheet will see the changes almost instantly.
  - Close the spreadsheet.
Tips:

- Point at a tool to see the label.
- Use the undo button.
- Share spreadsheets to collaborate with others.
- Use formulas for mathematical computations.
- Do not be afraid to ask for help.

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