**1. What do you mean by AutoComplete feature in Excel and what are the benefits of using this feature?**

The AutoComplete feature in Excel is a functionality that automatically suggests and completes data entry based on patterns and existing entries in the column. When you start typing in a cell, Excel analyzes the data in the column or adjacent cells and provides suggestions based on matching entries.

**Time-saving**: AutoComplete saves time by suggesting and completing entries as you type. It eliminates the need to retype repetitive or similar data, especially when dealing with long or complex entries.

**Accuracy and consistency**: The AutoComplete feature helps maintain data accuracy and consistency by suggesting existing entries. It reduces the chances of typographical errors and ensures consistent formatting and spelling across the column.

**Efficiency in data entry:** With AutoComplete, you can quickly populate a column with similar data patterns. For example, if you have a list of product names or employee names, Excel can suggest and complete the remaining entries based on existing data, making data entry faster and more efficient.

**Convenience:** AutoComplete offers convenience by providing suggestions that are based on the context of your data. It saves you from having to remember or search for specific entries, especially in large datasets.

**2. Explain working with workbooks and working with cells.**

Working with Workbooks:

Opening a Workbook: To open an existing workbook, you can go to the File tab and select "Open" or use the Ctrl + O keyboard shortcut. Navigate to the location where the workbook is saved, select it, and click "Open."

Creating a New Workbook: To create a new workbook, go to the File tab and select "New" or use the Ctrl + N keyboard shortcut. This opens a new blank workbook for you to start working on.

Saving a Workbook: To save a workbook, go to the File tab and select "Save" or use the Ctrl + S keyboard shortcut. Choose the location where you want to save the workbook, enter a name, and click "Save." If the workbook has already been saved previously, using the Save command will overwrite the existing file.

Closing a Workbook: To close a workbook, go to the File tab and select "Close" or use the Ctrl + W keyboard shortcut. If there are any unsaved changes, Excel will prompt you to save them before closing

Working with Cells:

Selecting Cells: To select a single cell, click on it. To select a range of cells, click and drag your mouse to encompass the desired cells. To select non-adjacent cells, hold down the Ctrl key (Command key on Mac) and click on each cell.

Entering Data: With a cell selected, you can directly start typing to enter data. Press Enter to move to the next cell in the same column or press Tab to move to the next cell in the same row. You can also use the arrow keys to navigate between cells.

Editing Cell Contents: Double-click on a cell to enter edit mode and modify its contents. Alternatively, select the cell and press F2 to enter edit mode. Make the necessary changes and press Enter to confirm.

Formatting Cells: Select the cell(s) you want to format and use the formatting options in the Home tab of the ribbon. You can change the font, font size, apply bold or italics, adjust alignment, and format numbers or dates, among other formatting options.

**3. What is fill handle in Excel and why do we use it?**

The fill handle in Excel is a small square located in the bottom right corner of a selected cell or range. It is used to quickly fill or extend data in adjacent cells based on a pattern or existing data. By dragging the fill handle, you can automatically populate a series, copy formulas, increment numbers, or fill in data based on a pattern.

Filling a Series: If you have a series of data that follows a pattern (e.g., months of the year, days of the week), you can enter the first few items and use the fill handle to extend the series. Excel will recognize the pattern and fill in the remaining items accordingly.

Copying Formulas: When you have a formula in a cell, you can use the fill handle to copy the formula to adjacent cells. Excel adjusts the cell references in the formula automatically based on the relative positions of the cells.

Incrementing Numbers: If you want to create a sequence of numbers, you can enter the first few numbers and use the fill handle to increment or extend the series. You can choose the increment pattern (e.g., by one, by two) by dragging the fill handle with the right mouse button held down and selecting the desired option from the context menu.

Filling Data based on a Pattern: If you have a specific pattern or set of data that you want to repeat, you can enter the data in a few cells and use the fill handle to fill the remaining cells with the same pattern.

**4. Give some examples of using the fill handle.**

**Filling a Series:** Enter "January" in cell A1 and "February" in cell A2.Select both cells A1 and A2.Place the mouse pointer on the fill handle (bottom right corner of the selection) until it turns into a small plus sign.Drag the fill handle down to extend the series.

Result: Excel will automatically fill in the subsequent months (March, April, etc.) based on the pattern.

**Copying Formulas:** Enter a formula in cell B1, for example, "=A1\*2" to multiply the value in cell A1 by 2.Select cell B1.Drag the fill handle down to copy the formula to adjacent cells.

Result: Excel will adjust the cell references in the copied formulas, such as "=A22" in cell B2, "=A32" in cell B3, and so on.

**Incrementing Numbers:** Enter "1" in cell C1 and "2" in cell C2.Select both cells C1 and C2.Drag the fill handle down to increment the numbers.

Result: Excel will automatically fill in the subsequent numbers (3, 4, 5, etc.) based on the increment pattern.

**Filling Data based on a Pattern:** Enter "Red" in cell D1 and "Blue" in cell D2.Select both cells D1 and D2.Drag the fill handle down to fill cells with the pattern.

Result: Excel will fill the subsequent cells with the same pattern of "Red" and "Blue".

**5. Describe flash fill and what the different ways to access the flash fill are.**

Flash Fill is a feature available in Microsoft Excel that automates the process of extracting or transforming data in a column based on a pattern or examples provided by the user. It can be particularly useful when dealing with large sets of data that require consistent formatting or extraction.

Keyboard Shortcut: Use the keyboard shortcut Ctrl + E to activate Flash Fill. This shortcut is compatible with Excel 2013 and later versions.

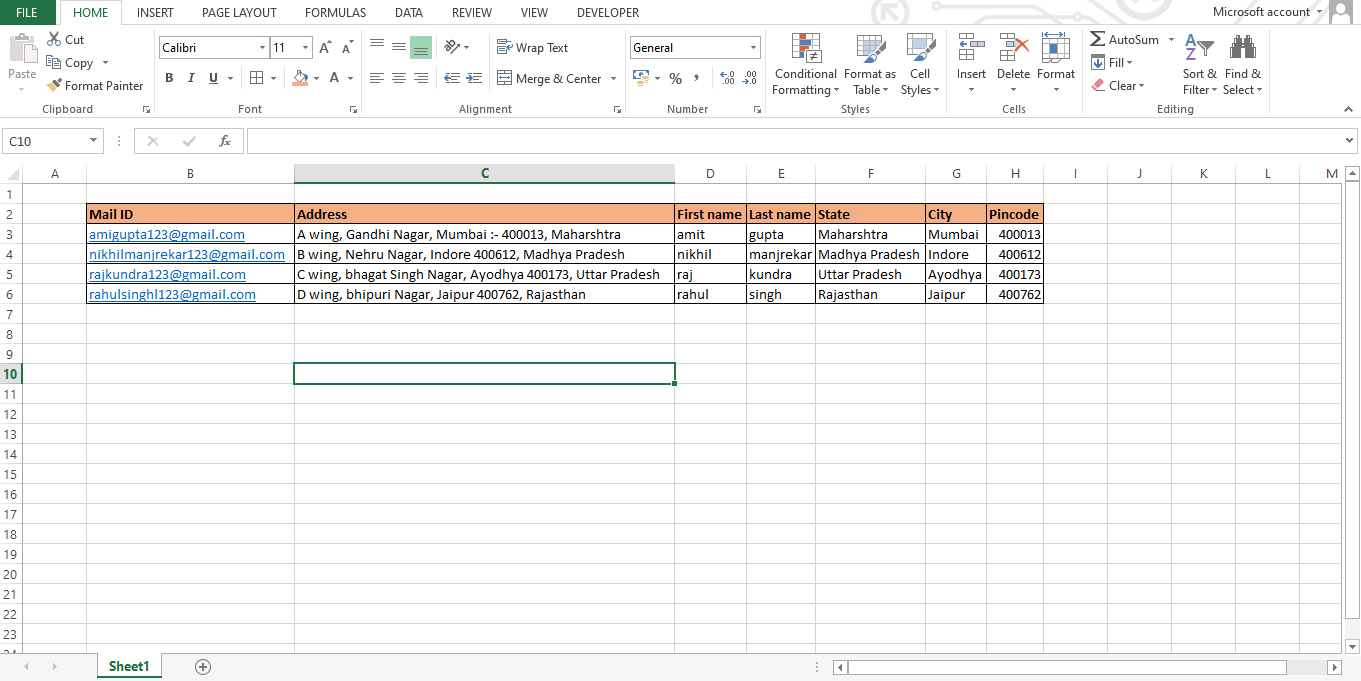
Ribbon Menu: In Excel, navigate to the "Data" tab in the ribbon menu. In the "Data Tools" section, you will find the Flash Fill button. Clicking on it will initiate Flash Fill for the selected data.

Context Menu: Right-click on a cell or a range of cells containing examples or patterns. In the context menu that appears, select "Flash Fill." Excel will attempt to fill the adjacent cells based on the selected examples.

Auto Fill Handle: Enter an example or pattern in the first cell of a column. Move the cursor over the small square known as the "Auto Fill Handle" located at the bottom-right corner of the selected cell until it changes to a plus sign (+). Click and drag the handle down the column to apply Flash Fill to the rest of the data.

**6. Extract first name and last name from the mail id and then from the address column, extract the city, state, and pin code using the flash fill. Given below is an example of the columns you have to create. Paste the screenshot of what you have created using the flash fill command.**

**Example: Mail Id, Address, First name, Last name, State, City, Pincode.**

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