SECTION 1 – Basic App Usage

Use Case 1 – Launch the Excel Sheet Sorter

Purpose: Make sure the application starts correctly and the main window looks normal.

Pre-requisites:

- The application is installed or the .exe / app.py is available.

- Test machine has Windows and Excel installed (optional but helpful).

Steps:

1. Double-click the **Excel Sheet Sorter** shortcut or executable.

2. Wait for the main window titled **"Excel Sheet Sorter"** to appear.

What to verify:

- The window title shows **"Excel Sheet Sorter"**.

- The background is a light, soft color (light grey/blue).

- You see:

  o A title bar with the text and small icon.

  o A top section labelled **"Select Excel File:"** with a **Drop file / Browse** area on the right.

  o A **"Sheets in Workbook:"** section.

  o A **Sort mode** dropdown and **Rename template** box.

  o Buttons: **"✅ Sort Workbook"**, **"🔁 Clear"**, **"❌ Exit"**.

  o A **status bar** at the bottom showing **"Ready."** and a progress bar.

  o A **"Application Log"** panel with a **"Show / Hide Log"** button.

Use Case 2 – Close the Application via Exit Button

Purpose: Confirm the **Exit** button closes the app.

Steps:

1. Ensure the app is open.

2. Click the **"❌ Exit"** button at the bottom.

What to verify:

- The application window closes completely.

- No error message appears.

Use Case 3 – Close the Application via Window "X" Button

Purpose: Confirm the normal window close button shows a confirmation prompt.

Steps:

1. Ensure the app is open.

2. Click the standard **X** close button in the top-right of the window.

3. When a confirmation message appears (asking if you're sure you want to exit), click **Cancel**.

4. Repeat and this time click **OK** (or **Yes**).

What to verify:

- Step 3: The app **stays open** after you click **Cancel**.

- Step 4: The app **closes** after you confirm.

Use Case 4 – Open the About Dialog

Purpose: Verify the **Help → About** menu works.

Steps:

1. Open the application.

2. On the top menu bar, click **Help**.

3. Click **About**.

4. Read the information.

5. Close the About popup.

What to verify:

- A small window appears with an **About** message describing **Excel Sheet Sorter** and its version.

- Closing the About window returns you to the main screen without issues.

SECTION 2 – Single File Selection & Sheet Preview

Use Case 5 – Select a Single Excel File via Browse

Purpose: Verify basic file selection works and sheets are shown.

Pre-requisites:

- A sample .xlsx file is available (not currently open in Excel).

Steps:

1. Open the application.

2. In the **"Select Excel File:"** area, move your mouse over the **"📁 Drop file / Browse"** box on the right.

3. Click once inside this **Drop file / Browse** box.

4. In the file dialog:

   o Choose an Excel file (e.g. Sample1.xlsx).

   o Click **Open**.

What to verify:

- The **"Sheets in Workbook:"** list shows the sheet names from the selected workbook.

- The label under the list shows something like:
  Sheets detected: X | File size: Y.Y KB.

- The **status bar** displays a message like **"✅ File(s) loaded successfully."**

Use Case 6 – Drag and Drop a Single Excel File

Purpose: Check drag-and-drop input works.

Pre-requisites:

- A sample .xlsx file on your desktop or in a folder.

- The app window is visible (not full-screen behind other windows).

Steps:

1. Open the application.

2. Open a File Explorer window with your sample Excel file visible.

3. Click and hold the Excel file.

4. Drag it over the app's **"📁 Drop file / Browse"** box.

5. Release the mouse button to drop the file.

What to verify:

- The file is accepted (no error popup about invalid files).

- The **"Sheets in Workbook:"** list is updated with sheet names from that file.

- The sheet count and file size are shown under the list.

- The **Search Sheet** box becomes enabled (you can click and type in it).

Use Case 7 – Filter Sheet Names Using the Search Box

Purpose: Confirm the **Search Sheet** field filters sheet names correctly.

Pre-requisites:

- An Excel file with multiple sheets already loaded (e.g. Data, Summary, January, February).

Steps:

1. With the workbook loaded, locate the **"Search Sheet:"** field above the sheet list.

2. Click inside the **Search Sheet** field.

3. Type a part of one sheet name, e.g. jan.

4. Slowly delete / edit your search to try different fragments (e.g. sum, data).

What to verify:

- As you type jan, only sheet names containing "jan" (case-insensitive) remain in the list (e.g. January Sales).

- As you clear the text, **all** sheet names reappear.

- No error or freeze occurs while typing.

SECTION 3 – Sort Modes on a Single Workbook

Use Case 8 – Simple Alphabetical Sort (A → Z)

Purpose: Confirm default alphabetical sorting works and can be saved.

Pre-requisites:

- A test workbook with multiple sheets in random order (e.g. Zebra, Alpha, Middle, etc.).

Steps:

1. Load the test workbook using Browse or drag-and-drop.

2. In the **"Sort mode:"** dropdown, ensure **"alpha"** is selected.

3. Make sure **"Preview Only (don't save changes)"** is **unchecked**.

4. Click **" ✅ Sort Workbook"**.

5. When asked **"Do you want to save as a new file instead of overwriting?"**, choose **No** (or equivalent) to overwrite the original.

6. If asked whether you want to open the file in Excel, choose **Yes**.

What to verify:

- The progress bar moves during sorting.

- No error messages appear.

- After Excel opens the file:

  o The sheet tabs are now sorted alphabetically (A → Z) by their names.

- The **Application Log** (if visible) shows messages like:

  o [INFO] Sorted successfully: <file path>

  o [INFO] Overwritten: <file path>

Use Case 9 – Reverse Alphabetical Sort (Z → A)

Purpose: Validate **reverse alphabetical** sorting.

Pre-requisites:

- Same or another workbook with multiple sheets.

Steps:

1. Load the workbook.

2. In **"Sort mode:"**, choose **"reverse_alpha"**.

3. Make sure **Preview Only** is **unchecked**.

4. Click " ✅ **Sort Workbook"**.

5. Choose whether to **Overwrite** or **Save As** (pick one).

6. Open the result in Excel when prompted.

What to verify:

- Sheet order in Excel is reversed (Z → A).

- The log mentions custom sort being applied.

- No crash or unexpected message appears.

Use Case 10 – Sort by Numeric Suffix (e.g. Sheet1, Sheet2, Sheet10)

Purpose: Confirm **numeric_suffix** mode orders by number at the end of sheet names.

Pre-requisites:

- A workbook with sheet names like Report1, Report2, Report10, Report3 (not in order).

Steps:

1. Load the workbook.
2. In **"Sort mode:"** dropdown, select **"numeric_suffix"**.
3. Ensure **Preview Only** is **unchecked**.
4. Click **"✅ Sort Workbook"**.
5. Overwrite or Save As (either is fine).
6. Open the workbook in Excel.

What to verify:

- Sheets appear in numeric order: Report1, Report2, Report3, Report10.
- They are not simply sorted alphabetically (where 10 would come before 2).

Use Case 11 – Sort by Calendar Month (Jan → Dec) with Auto Detection

Purpose: Verify that month-named sheets are auto-detected and sorted Jan → Dec.

Pre-requisites:

- A workbook whose sheets are named like: Mar, Jan, Feb, Summary, etc., in random order.

Steps:

1. Open the application.
2. Load the workbook that contains month names.
3. Watch the **"Sort mode:"** dropdown after the workbook loads.

What to verify (before sorting):

- The **Sort mode** automatically switches to **"Jan→Dec"** (if it was on a basic mode like alpha).
- The log (if visible) shows a message like:
  Month-based sheets detected → auto-selected 'Jan→Dec'.

Sorting:
4. Ensure **Preview Only** is unchecked.
5. Click **"✅ Sort Workbook"**.

6. Overwrite or Save As.

7. Open the workbook in Excel.

What to verify after sorting:

- Month sheets are ordered in calendar order: Jan, Feb, Mar, …

- Non-month sheets (like Summary) appear after the month sheets, grouped at the end.

Use Case 12 – Sort by Calendar Month (Dec → Jan)

Purpose: Validate the **Dec→Jan** sort mode.

Pre-requisites:

- Same month-based workbook as above.

Steps:

1. Load the workbook.

2. Manually change **"Sort mode:"** to **"Dec→Jan"**.

3. Ensure **Preview Only** is unchecked.

4. Click **" ✅ Sort Workbook"**.

5. Overwrite or Save As.

6. Open the workbook.

What to verify:

- Months are ordered from December backwards to January.

- Non-month sheets still appear after all month sheets.

SECTION 4 – Preview Mode (No Saving)

Use Case 13 – Preview Sort Order Without Saving

Purpose: Let the user see the new order before any changes are written to the file.

Pre-requisites:

- Any workbook with several sheets.

Steps:

1. Load a workbook.

2. Choose any **Sort mode** (for example **alpha** or **Jan→Dec**).

3. Tick **"Preview Only (don't save changes)"**.

4. Click **" ✅ Sort Workbook"**.

What to verify:

- A popup appears showing the new sheet order as a text list.

- The **Application Log** shows a [PREVIEW] entry describing the order.

- If you reopen the original workbook in Excel **without saving from the app**, the sheet order is **unchanged** (because this was a dry run).

SECTION 5 – Rename Template

Use Case 14 – Rename Sheets with a Custom Template (Index)

Purpose: Check that the **Rename template** field renames sheets.

Pre-requisites:

- A workbook with several sheets (any names).

- You are comfortable overwriting or saving a copy.

Steps:

1. Load the workbook.

2. In **"Sort mode:"**, choose **alpha** (or any desired mode).

3. In the **"Rename template:"** field, replace the default {title} with: Sheet_{i}

4. Ensure **Preview Only** is **unchecked**.

5. Click **" ✅ Sort Workbook"**, then choose to **Overwrite** or **Save As**.

6. Open the resulting workbook in Excel.

What to verify:

- Sheet names follow the pattern: Sheet_1, Sheet_2, Sheet_3, … in the sorted order.

- No invalid name errors or warnings appear.

Use Case 15 – Rename Sheets While Preserving Original Titles

Purpose: Confirm {title} token is used correctly.

Pre-requisites:

- Workbook with sheets like Sales, Marketing, HR.

Steps:

1. Load the workbook.

2. Set **Sort mode** to **alpha**.

3. In **"Rename template:"** type:
   {title}_2025

4. Ensure **Preview Only** is **unchecked**.

5. Click **" ✅ Sort Workbook"**, then choose Overwrite or Save As.

6. Open the workbook in Excel.

What to verify:

- Sheets are renamed to HR_2025, Marketing_2025, Sales_2025 (or similar, depending on sorting).

- The original names appear as part of the new names.

SECTION 6 – Batch Mode & Background Mode

Use Case 16 – Enable Batch Mode and Select Multiple Files

Purpose: Make sure batch selection works and shows selected files.

Pre-requisites:

- Several Excel files (e.g. Book1.xlsx, Book2.xlsx, Book3.xlsx).

Steps:

1. Open the application.

2. Tick **"Enable Batch Mode"** under **Select Excel File**.

3. Click the **" 📁 Drop file / Browse"** box.

4. In the file dialog, select **multiple** Excel files (use Ctrl+Click).

5. Click **Open**.

What to verify:

- The **Sheets in Workbook** list now shows **file names** instead of sheet names.

- The summary label shows something like **"3 files selected (batch mode)"**.

- The **Search Sheet** field becomes disabled (greyed out).

Use Case 17 – Batch Sort Without Background Mode

Purpose: Check multiple files can be processed one after another.

Pre-requisites:

- Use Case 16 completed (multiple files loaded).

Steps:

1. Ensure **"Run in background"** is **unchecked**.
2. Select a suitable **Sort mode** (e.g. **alpha**).
3. Make sure **Preview Only** is **unchecked**.
4. Click **" ✅ Sort Workbook"**.
5. For each file:

   o Decide whether to **Save As** or **Overwrite** when prompted.

   o Optionally choose **Yes** or **No** when asked to open it in Excel.

What to verify:

- The status bar updates to reflect progress, e.g.
  Sorting: <file> (1/3), Sorting: <file> (2/3)…
- The progress bar advances as each file is processed.
- Each selected workbook ends up sorted correctly according to the chosen mode.

Use Case 18 – Batch Mode with "Run in background" Enabled

Purpose: Ensure background processing starts and progress/log messages update.

Pre-requisites:

- Same multiple files as in Use Case 16.

Steps:

1. Load multiple files with **Batch Mode** enabled.
2. Tick **"Run in background"**.
3. Choose a **Sort mode**.
4. Click **" ✅ Sort Workbook"**.

What to verify:

- Status bar shows messages like **"Batch finished."** when done.

- Progress bar moves steadily.

- **Application Log** contains entries for each file:

  o started, loaded, sorted, done.

- (Note: depending on current implementation, verify whether actual files are saved or if this is only a test / preview behaviour.)

SECTION 7 – Log Panel & Tooltips

Use Case 19 – Show and Hide the Application Log

Purpose: Confirm the log panel toggles correctly.

Steps:

1. Open the application.

2. Find the **"Application Log"** area near the bottom.

3. Click the **"Show / Hide Log"** button.

4. Perform a simple action (e.g. load a workbook or run a sort).

5. Click **"Show / Hide Log"** again.

What to verify:

- When the log is shown, you can see text messages appear as you perform actions.

- When hidden, the log area collapses, and the rest of the layout remains tidy.

- No error occurs when toggling multiple times.

Use Case 20 – Check Button Tooltips

Purpose: Ensure helpful tooltips appear when hovering over some buttons.

Steps:

1. Move the mouse over the **" ✅ Sort Workbook"** button and hover for a moment.

2. Move the mouse away.

3. Repeat for other main buttons if available.

What to verify:

- A small yellow tooltip appears near the button with a short help text.

- The tooltip disappears when you move the mouse away.

SECTION 8 – Error Handling & Edge Cases

Use Case 21 – Click "Sort Workbook" with No File Selected

Purpose: Verify the app handles a missing file gracefully.

Steps:

1. Open the application.

2. Do **not** load any file.

3. Click " ✅ **Sort Workbook"**.

What to verify:

- An information message appears telling you to select an Excel file first.

- The status bar indicates **no file** or similar warning.

- No crash or exception dialog occurs.

Use Case 22 – Try Sorting a File That Is Already Open in Excel

Purpose: Confirm the app detects locked/open files and warns the user.

Pre-requisites:

- A workbook named e.g. LockedTest.xlsx.

- Open LockedTest.xlsx directly in Excel and keep it open.

Steps:

1. With the file open in Excel, switch to Excel Sheet Sorter.

2. Try to load LockedTest.xlsx via Browse or drag-and-drop.

3. If it does load, attempt to click " ✅ **Sort Workbook"** and follow the usual prompts.

What to verify:

- You receive a warning message such as:

    o The file is open in Excel or is locked.

- Sorting and saving the workbook is **not** allowed until you close it in Excel.

- The app does not crash.

Use Case 23 – Use the Clear Button

Purpose: Verify the **" 🔄 Clear"** button resets the UI to a clean state.

Pre-requisites:

- Have any file loaded and sheet list visible.

Steps:

1. Load a workbook and confirm the sheet list shows entries.

2. Click the **" 🔄 Clear"** button.

What to verify:

- The sheet list becomes empty.

- The summary label under the sheet list is cleared.

- Batch / Preview checkboxes are reset to their default values.

- Status bar returns to **" ✅ Ready."**.

- A small popup appears confirming that selection is cleared.

Use Case 24 – Keyboard Shortcuts (Ctrl+O, Ctrl+S, Ctrl+Q)

Purpose: Make sure keyboard shortcuts work for power users.

Pre-requisites:

- At least one workbook available.

Steps:

1. With the app focused:

   o Press **Ctrl + O**:

      ▪ Check that the **file open dialog** appears.

   o After loading a file, press **Ctrl + S**:

      ▪ Check that this behaves like clicking **" ✅ Sort Workbook"** (you may cancel the prompts).

   o Press **Ctrl + Q**:

      ▪ Check that the application exits.

What to verify:

- Shortcuts trigger the expected actions.

- No unexpected popups or errors appear when using the shortcuts.

SECTION 9 – Visual / Layout Checks

Use Case 25 – Window Position and Resizing

Purpose: Confirm the window opens centered and resizing is restricted.

Steps:

1. Close the app completely.

2. Reopen the app.

3. Note its position on the screen.

4. Try to drag the window borders to resize, and try the Maximize button.

What to verify:

- The window initially appears **centered** on your main display.

- The window **cannot** be maximized to full screen.

- You can still minimize and close it using standard window controls.