Materials required rules

User Inputs:

- Total wall length (in feet or meters)
- Number of niches
- Number of internal corners
- Number of external corners
- Wall height (specify if any sections exceed 8 feet)

Material Calculations:

1. **Wall Panels**:
    - Standard Fibo wall panels measure approximately 24 inches (2 feet) in width and 94.4 inches (7.87 feet) in height.
    - Calculate the number of panels required:
        - Convert total wall length to inches (if input is in feet).
        - Divide the total wall length by the panel width (24 inches).
        - Round up to the nearest whole number to ensure complete coverage.
    - For metric calculations:
        - Convert total wall length to millimeters.
        - Divide by panel width (600 mm).
        - Round up as above.
2. **Fibo Grip**:
    - Allocate 1 Fibo Grip per project.
3. **Fibo Seal**:
    - Allocate 1 Fibo Seal per project.
4. **Base Profiles**:
    - Assign 1 base profile per panel.
5. **Corner Profiles**:
    - Assign 1 internal corner profile per internal corner.
    - Assign 1 external corner profile per external corner.
6. **Sealant Tubes**:
    - Determine the number of sealant tubes based on panel count:
        - Specify the coverage area per tube (e.g., 6 panels per tube).
        - Divide the total number of panels by this coverage to determine the number of tubes needed.
7. **Screws**:
    - Each panel requires 16 screws.blog.innovatebuildingsolutions.com
    - Calculate total screws:
        - Multiply the number of panels by 16.
    - Determine the number of screw boxes:
        - If total screws ≤ 800, use boxes of 200 screws.
        - If total screws > 800, use boxes of 1,000 screws.
8. **Fibo Clean and Fibo Wipes**:

    - Allocate 1 can of Fibo Clean per 6 panels.
    - Allocate 1 can of Fibo Wipes per 6 panels.
9. **Stacking Profiles** (for wall heights over 8 feet):
    - If any wall sections exceed 8 feet in height:
        - Determine the length of wall exceeding 8 feet.
        - Assign 1 stacking profile per panel covering this area.

Additional Considerations:

- **Niches**:
    - For each niche, additional materials may be required, such as:

Material Calculations per Niche

Each niche requires:

1. **Additional Wall Panel Material**:
    - Niche interiors must be lined with panels for a seamless look and waterproofing.
    - Calculation:
        - **(Niche height + Niche depth) × 2** → Total panel length required for side walls.
        - **Niche width** → Additional panel section for the back wall.
    - Panels come in standard widths of **24 inches (600mm)**; cutting waste must be accounted for.
2. **Edge Profiles** (to finish and seal exposed edges):
    - **1 internal corner profile per side wall** (to transition from the wall into the niche).
    - **1 additional internal corner profile if the niche is deeper than 6 inches** (as deeper niches require more complex coverage).
    - **L-profile or finishing trims for the exposed niche edges**.
3. **Sealant**:
    - Every cut edge must be sealed for waterproofing.
    - **Additional Fibo Seal tubes are required** based on the total extra linear footage from niche coverage.
4. **Screws**:
    - More attachment points are needed due to extra panel sections inside the niche.
    - Estimate **4 additional screws per niche**, depending on size.
5. **Fibo Wipes and Clean**:
    - If niches significantly increase the panel count (e.g., **every additional 6 panels**), add extra **Fibo Wipes and Fibo Clean**.

Example Calculation:

For **a single niche of 12 inches wide × 24 inches high × 6 inches deep**:

- **Panels Needed**:
    - **Side walls**: (24-inch height + 6-inch depth) × 2 = 60 inches (5 feet) of panel.

    - **Back wall**: 12 inches of panel.
    - **Total panel length needed** = 5 feet 12 inches (≈6 feet).
    - Round up to the nearest full panel set (2 panels per set).
- **Profiles Needed**:
    - **2 internal corner profiles** for side edges.
    - **L-profile trim** for exposed edges.
- **Sealant & Screws**:
    - **1 extra tube of sealant per 3 niches**.
    - **4 extra screws per niche**.

Line item optional waste factor 7%

Rounding materials style, if there is a remind must round up