**Executive Summary:**

**Codification and Formulation Project for M/S Ajanta Shoes Pvt. Ltd.**

As part of a strategic initiative to enhance confidentiality in the production process, I visited the plant of M/S. Ajanta Shoes Pvt. Ltd., Kolkata, a leading manufacturer of footwear, yesterday. The primary goal was to review the internal raw material codification system and its integration into the company's confidential formulation card (Recipe Card).

**Project Objective**  
I have been informally engaged as an IT consultant to oversee the implementation of this project, with a focus on ensuring confidentiality at the shop floor level, particularly in the handling and documentation of sensitive formulations.

**Key Observations and Challenges:**  
The Company has a robust SAP system in place, leveraging the MM module. However, the WM and PP modules are yet to be implemented, posing certain operational limitations.

1. **Material Description Visibility:**  
   Currently, raw materials are labelled with internal codes (e.g., CH117 for Zinc Oxide), and the inventory is stored on the floor, surrounding the area. These materials are identified with small boards hanging on the fencing wall, displaying the internal codes. However, supplier-provided labels with material descriptions are still visible on the packaging, which could compromise confidentiality. While it may not be feasible to completely hide these labels due to legal and tax requirements during transportation, I suggest that suppliers be requested to use the company’s internal codes on purchase orders and tax invoices. This would allow the use of internal codes while moving the goods from the truck to the assigned location (internal code). Sometimes, the same material may be referred to by different names by different suppliers, and assigning internal codes will resolve this issue by standardizing the material identification process.
2. **Formulation Card (Recipe Card):**  
   The formulation card is currently prepared manually, listing raw materials with internal codes. **This practice leaves the system vulnerable**, as workers/outsiders can easily correlate internal codes with material descriptions visible in the storage area.

**Proposed Solutions**

* **Barcode Integration:** The internal material codes should be replaced with barcode images on the Recipe Card. These barcodes, encoded with a combination of compound and material codes, will prevent direct identification of materials by those handling the documents.
* **Material Handling Improvement:**  
  To address the challenge of material delivery by the four assigned worker groups—1. Polymer, 2. Chemical, 3. Pigments, and 4. Accelerator—the Recipe Card can be split into individual slips. Each slip will contain only the relevant internal codes for the specific material assigned to that group. For example, the group responsible for delivering polymers will receive a slip with the internal code related to the polymer, while the other groups will receive slips for chemicals, pigments, and accelerators respectively. This will ensure that each group handles only the information relevant to their task, maintaining the confidentiality of the full formulation.
* By implementing this method, visibility of the entire Recipe Card is restricted, and workers can only access the specific material data they need to deliver. This measure protects sensitive information while still ensuring efficient material handling on the shop floor.

The final version of the Recipe Card will feature barcodes for future reference, ensuring confidentiality while allowing traceability through the encoded data.

* **Restructuring of Internal Code:**  
  To ensure consistency and improve the traceability of materials, the existing internal coding system should be restructured and standardized. A fixed coding convention with a defined length and clear implications for each segment of the code (such as material type, supplier, or category) should be established. This would not only enhance system organization but also make it easier to implement bar coding and other automation measures in the future. This area can be revisited for further refinement as the project progresses.

**Conclusion**  
The integration of bar coding and restructuring the formulation documentation will ensure that sensitive material information is safeguarded, even on the shop floor. While the introduction of wireless barcode scanners may not be economically viable, these recommendations provide a feasible and cost-effective alternative to maintain the confidentiality of the formulation process.