**Group 7 Data Science Class 2**

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**Production Flowchart Report: PT SI DO MUNCUL**

**1. Process Flow Explanation**

The production process follows a structured sequence to ensure quality and efficiency. Below is a step-by-step breakdown of each activity:

**Step 1: Initiation**

* **Receive Request**: A production order is received from the relevant department.
* **Plan Production**: The team reviews the request and prepares a production plan.

**Step 2: Material Preparation**

* **Check Inventory**: The system verifies if raw materials (e.g., honey, mint leaves, cinnamon) are available in stock.
  + **If Available**: Proceeds directly to production.
  + **If Not Available**:
    - **Send Purchase Requisition**: A request is made to procure the required materials.
    - **Buy Raw Materials**: Purchasing team acquires the materials from suppliers.
    - **Receive Raw Materials**: Materials are delivered and logged into the system.

**Step 3: Quality Check for Raw Materials**

* **Inspect Raw Materials**:
  + **Pass**: Materials meet standards and are sent to production.
  + **Fail**: Materials are rejected or returned to the supplier.

**Step 4: Production Phase**

* **Produce Goods**: Manufacturing begins using approved raw materials.
* **Oversee Production**: Supervisors monitor the process to ensure compliance with procedures.

**Step 5: Quality Control for Finished Products**

* **Test Finished Products**:
  + **Organoleptic Checks**: Color, odor, and taste are evaluated.
  + **Lab Tests**: Acidity, sugar content, viscosity, and disintegration time are measured.
  + **Safety Tests**: Screens for microbes, aflatoxins, and heavy metals.
  + **Infrastructure Audit**: Ensures equipment and facilities meet hygiene standards.
* **Pass**: Products are approved for delivery.
* **Fail**: Products are rejected or sent for rework.

**Step 6: Final Steps**

* **Send to Inventory**: Approved products are stored or prepared for distribution.
* **Generate Reports**: Documentation is completed for records and analysis.
* **End Process**: The production cycle concludes.

**You can access the code here:**

https://github.com/Richeaa/ais\_project