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| RAZDA Co. | | |
| **Filename: [pricing\_calculator.py]** | | |
| **Summary***:*  Calculates customer prices, profit margins, and discounts, supporting bulk pricing and alerting when profit margins fall below a set threshold. | | |
| ***Processes*** | | |
| * **Product Price Calculatioin** | **calculate\_product\_price calculates the final customer price, factoring in base price, factory costs, discounts, shipping fees, and tax. Returns a breakdown including final\_customer\_price, total\_cost, and profit\_margin.** | |
| * **Discount Application:** | **apply\_discounts adjusts the factory cost based on available discounts, supporting various discount types (e.g., bulk, seasonal) to ensure accurate cost and margin estimates.** | |
| * **Profit Margin Calculation:** | **calculate\_profit\_margin computes the profit margin for the product, helping ensure it meets the minimum threshold. Alerts are triggered if it’s below the MIN\_PROFIT\_MARGIN** | |
| * **Bulk Pricing Calculation:** | **calculate\_bulk\_pricing enables volume-based discounts, adjusting customer and factory costs for bulk orders and providing a pricing summary for bulk quantities.** | |
| * **Pricing Logs for Audit:** | **log\_pricing\_details logs key pricing details for auditing, ensuring a record of calculations for each product.** | |
| * **Low-Margin Alerts:** | **alert\_on\_low\_margin triggers an alert if the profit margin falls below MIN\_PROFIT\_MARGIN, helping the company maintain profitability.** | |
| **Files it Gets Information From:** | | **Files it Sends too:** |
| * **Pricing Manager**: Interfaces with the PricingManager for accessing price data and managing calculations. | * **Alerts Module**: Can be integrated to notify admins when margins fall below acceptable limits. | |
| **Expected input into file:** | | **Expected output from file:** |
| * **Product Data**: Receives product information including product\_id, customer\_price, and factory\_cost, and additional fees like shipping or taxes. * **Discount Data**: Receives optional discounts to be applied, supporting seasonal and bulk pricing. * **Bulk Order Quantity**: Supports bulk pricing by accepting quantity and bulk discount rate. | | * **Pricing Details**: Returns a detailed breakdown with the final customer price, total costs, and profit margins for each product. * **Log and Alert Data**: Outputs logs for each product’s pricing details and triggers alerts if margins are below the set threshold. * **Audit Records**: Maintains logs of all pricing calculations for audit purposes. |
| **Things that need to be taking place:** | | |
| |  | | --- | | **- Accurate Pricing Calculation: calculate\_product\_price ensures customer price and costs align with Razda’s pricing structure, taking all fees and taxes into account.** |  |  | | --- | | **- Comprehensive Discount Application: apply\_discounts supports various discount rates, making it flexible to different promotional and seasonal discounts.** |  |  | | --- | | **- Real-Time Profit Margin Alerting: alert\_on\_low\_margin warns of low margins to prevent product listings that could undercut profitability.** |  |  | | --- | | **- Bulk Pricing Support: calculate\_bulk\_pricing enables efficient price adjustments for volume orders, enhancing Razda’s ability to handle larger customer orders.** |  |  | | --- | | **- Audit-Friendly Logging: log\_pricing\_details tracks each pricing calculation, aiding compliance and supporting review for auditing purposes.** |  |  | | --- | |  | | | |
| Edit log (update each time you make changes to doc or file). | | |
| |  | | --- | | - **Automated Margin Adjustment**: Automatically increase prices to meet the minimum profit margin if a product falls below threshold, reducing manual intervention. |  |  | | --- | | - **Enhanced Discount Flexibility**: Add support for stacking multiple discount types or introducing discount expiration dates for time-limited promotions. |  |  | | --- | | - **Dynamic Pricing Based on Demand**: Adjust prices based on current demand, offering higher prices during peak demand and discounts for lower-demand periods. |  |  | | --- | | - **Cost Breakdown for Customers**: Show a transparent cost breakdown to customers, which could increase trust and justify pricing for premium products. | | | |
| * Oliver Smith (Razda Admin) Nov 8, 2024: | | |