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| RAZDA Co. | | |
| **Filename: [inventory\_sync.py]** | | |
| **Summary***:*  Synchronizes inventory between Razda's factory API and Squarespace, ensuring both systems reflect accurate stock levels. Identifies discrepancies, alerts for low stock, and supports manual adjustments for inventory. | | |
| ***Processes*** | | |
| * **Fetch Factory Inventory** | **fetch\_factory\_inventory retrieves current inventory data from the factory API and logs the fetched details.** | |
| * **Fetch Squarespace Inventory** | **fetch\_squarespace\_inventory retrieves Squarespace inventory data for comparison.** | |
| * **Sync Inventory** | **sync\_inventory compares factory and Squarespace data, synchronizing quantities as needed and logging each sync session. If an item’s quantity falls below the threshold, alerts are generated.** | |
| * **Batch Update Inventory** | **batch\_update\_inventory sends batch updates to Squarespace to align its inventory levels with the factory.** | |
| * **Notify Low Stock** | **notify\_low\_stock alerts admins when any item’s quantity falls below the threshold.** | |
| * **Manual Adjustment** | **manual\_adjustment allows admins to update inventory levels for a specific SKU in Squarespace as needed.** | |
| * **Track Inventory History** | **track\_inventory\_history logs each change in stock levels for historical tracking.** | |
| * **Periodic Sync** | **periodic\_sync automatically synchronizes inventories at the configured interval, helping maintain real-time accuracy.** | |
| * **Handle Sync Discrepancies** | **handle\_sync\_discrepancies identifies and logs inventory mismatches between systems, flagging discrepancies.** | |
| **Files it Gets Information From:** | | **Files it Sends too:** |
| * **Factory API**: Retrieves current factory inventory levels. | * **Squarespace API**: Sends updated inventory quantities in batches to Squarespace. | |
| * **Environment Variables**: Accesses sync intervals, thresholds, and URLs. | * **Alerts Module**: Sends notifications for low-stock items if configured. | |
| **Expected input into file:** | | **Expected output from file:** |
| * **Factory Inventory Data**: Item data from the factory API, including SKUs and quantities. * **Low Stock Threshold**: Defines when low-stock notifications are triggered | | * **Updated Squarespace Inventory**: Synchronizes factory inventory with Squarespace as necessary. * **Logged Inventory History**: Logs each inventory adjustment for record-keeping and auditing. * **Discrepancy Report**: Log warnings if factory and Squarespace quantities mismatch. |
| **Things that need to be taking place:** | | |
| |  | | --- | | **- Regular Inventory Syncing: Run periodic\_sync to maintain up-to-date inventory data, ensuring stock levels remain consistent across platforms.** |  |  | | --- | | **- Alert Configuration: Ensure that low-stock alerts are properly configured, so admins receive timely notifications for stock replenishment.** |  |  | | --- | | **- Error Handling: Ensure fetch\_factory\_inventory and fetch\_squarespace\_inventory handle network issues effectively, implementing retry logic if necessary.** |  |  | | --- | | **- Discrepancy Resolution: Routinely check discrepancies identified by handle\_sync\_discrepancies, reconciling any mismatches to prevent out-of-stock issues.** |  |  | | --- | | **- Inventory Update Tracking: Use track\_inventory\_history for all quantity adjustments, supporting transparency and auditing of inventory changes.** |  |  | | --- | |  | | | |
| Edit log (update each time you make changes to doc or file). | | |
| * Oliver Smith (Razda Admin) Nov 8, 2024: | | |