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| RAZDA Co. | | |
| **Filename: [inventory\_sync.py]** | | |
| **Summary***:*  The inventory\_sync.py script facilitates synchronization between Razda Market’s product inventory and SquareSpace, ensuring consistent stock levels across both platforms. By preventing discrepancies in inventory data, this script ensures that products available for purchase on Razda Market remain accurately represented on SquareSpace, reducing overselling risks and improving user experience. The script connects with SquareSpace via API, sending product inventory updates in real-time or at scheduled intervals. | | |
| ***Processes*** | | |
| * **Environmental and Logging Setup:** | **Loads environment variables and configures logging in inventory\_sync.log to capture each synchronization action, including successful updates and errors. Logs help in tracking issues and reviewing sync operations, ensuring accountability.** | |
| * **Authentication Setup:** | **Imports SquareSpaceAuth to authenticate API requests with SquareSpace. Checks for a valid access token to prevent unauthorized requests, enforcing secure data sharing between Razda Market and SquareSpace.** | |
| * **Inventory Data Retrieval:** | **Fetches all product data from the ProductCatalog class, retrieving product IDs, names, and stock levels. Formats data in a structured array for efficient transmission to SquareSpace. Logs successful data retrieval and captures any retrieval errors.** | |
| * **Squarespace inventory Update** | **Constructs and sends a request to the SquareSpace API to update inventory levels. Logs successful synchronization actions and captures errors if the request fails, helping track integration stability** | |
| **Files it Gets Information From:** | | **Files it Sends too:** |
| * **SquareSpaceAuth (squarespace\_auth.py)**: Manages SquareSpace authentication, providing an access token for secure API communication. Used to confirm SquareSpace access before sending inventory data. | * **Log file (inventory\_sync.log)**: Logs each synchronization attempt, including timestamps, success or failure status, and error details, assisting with troubleshooting and monitoring synchronization health. | |
| * **ProductCatalog (product\_catalog.py)**: Contains methods to retrieve product information, ensuring accurate product data for synchronization with SquareSpace. Fetches product IDs, names, and inventory counts for up-to-date syncing. |  | |
| * **InventoryStatus (inventory\_status.py)**: Manages inventory tracking within Razda Market, providing stock level data for accurate inventory status checks |  | |
| **Expected input into file:** | | **Expected output from file:** |
| * **User Session (User ID)**: Required to ensure that only authenticated users can access the sync functionality. **Product Data**: Retrieved from ProductCatalog and formatted into JSON, containing product\_id, name, and inventory\_count for each item in the Razda Market inventory. | | * **Synchronization Status Log**: Logs successful or unsuccessful sync attempts, detailing errors and connection issues for diagnostics. **SquareSpace API Response**: Receives a response from SquareSpace confirming the success of the update or detailing issues if unsuccessful. |
| **Things that need to be taking place:** | | |
| |  | | --- | | **1. Environment Variable Verification: Ensure all necessary variables are in .env, including SquareSpace API credentials and logging configuration. Validate that squarespace\_auth can retrieve and use the access token, verifying successful loading.** |  |  | | --- | | **2. Logging Verification: Check inventory\_sync.log to ensure that each synchronization attempt is logged, including timestamps, status, and relevant user information. Verify that the log captures both successful and unsuccessful sync actions for accurate auditing.** |  |  | | --- | | **3. Authentication Validation: Confirm SquareSpaceAuth manages authentication securely and that the access token is valid for all sync requests. Unauthorized requests should be blocked with an error message and logged, ensuring only authenticated users access sync functionalities.** |  |  | | --- | | **4. Data Consistency and Accuracy:** |  |  | | --- | |  | | | |
| Edit log (update each time you make changes to doc or file). | | |
| * Oliver Smith (Razda Admin) Nov 8, 2024: | | |