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| RAZDA Co. | | |
| **Filename: [payment\_processing.py]** | | |
| **Summary***:*  Manages payment processing operations with Stripe, including creating payment intents, confirming payments, and handling webhooks. This file serves as an intermediary to securely handle and process all payment-related actions, providing methods to verify, log, and act upon different payment events received from Stripe. | | |
| ***Processes*** | | |
| * **Initialize Stripe API** | **Configures the Stripe API with the secret key, allowing secure communication with Stripe’s servers.** | |
| * **Create Payment Intent** | **Generates a PaymentIntent to initiate a payment, specifying the amount, currency, and payment method type.** | |
| * **Confirm Payment Intent** | **Confirms a PaymentIntent, finalizing the payment if all requirements are met.** | |
| * **Handle Webhook Events** | **Verifies and processes webhook events from Stripe, handling actions such as successful payments and failed payments** | |
| **Files it Gets Information From:** | | **Files it Sends too:** |
| * current\_app (Flask): Retrieves app configurations, specifically STRIPE\_SECRET\_KEY and STRIPE\_WEBHOOK\_SECRET for authentication with Stripe. | * payment\_processing.log: Logs significant events, including successful creation, confirmation of payment intents, and handling of various webhook events. | |
| * payment\_webhook.py: Calls handle\_webhook to process incoming webhook data from Stripe and respond accordingly. |  | |
| **Expected input into file:** | | **Expected output from file:** |
| - **API Key**: STRIPE\_SECRET\_KEY from the environment variables to initialize Stripe API access.  - **POST Payload**: Raw JSON payload from Stripe webhooks, containing data on events like payment\_intent.succeeded or payment\_intent.payment\_failed.  - **Signature Header**: Stripe-Signature header from webhook requests, used to verify the authenticity of the payload. | | - **PaymentIntent Object**: Returns a PaymentIntent object upon successful creation of a payment intent  - **Log Entries in payment\_processing.log**: Records information on payment intents, webhook events, errors, and other payment-related actions for auditing and  - **Boolean Value**: True if webhook verification and handling were successful; False if there was an error (e.g., invalid payload or signature verification failure). |
| **Things that need to be taking place:** | | |
| |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | |  | | --- | | **- Environment Variables: Ensure STRIPE\_SECRET\_KEY and STRIPE\_WEBHOOK\_SECRET are securely stored and loaded into the environment for API initialization and webhook verification.** |  |  | | --- | | **- Signature Verification: Verify all incoming webhooks using Stripe-Signature and STRIPE\_WEBHOOK\_SECRET to prevent unauthorized access or spoofing attempts.** |  |  | | --- | | **- Error Handling: Log any errors or exceptions, particularly when creating or confirming payment intents, to diagnose potential issues with payment processing.** |  |  | | --- | | **- Webhook Event Handling: Appropriately handle different event types (e.g., payment\_intent.succeeded, payment\_intent.payment\_failed) to update user orders, notify customers, or trigger refunds as necessary.** |  |  | | --- | | **- Testing: Ensure thorough testing in a sandbox environment with mock data from Stripe to confirm that all functions work as expected in live scenarios.** | | | | |
| Edit log (update each time you make changes to doc or file). | | |
| * Oliver Smith (Razda Admin) Nov 8, 2024: | | |