**REQUEST/RESPONSE FORMATS :**

* ***Request Format*:**
  + All API requests use JSON format.
  + For **GET** requests, query parameters are optional.
  + For **POST** requests, the payload is sent in the request body as a structured JSON object.
* ***Response Format*:**
* All API responses are structured in JSON format.
* **Success responses** return:
  + A relevant HTTP status code (200 OK, 201 Created)
  + A success message.
  + **Error responses** return:
* A specific error status code (400 Bad Request, 404 Not Found, 500 Internal Server Error)
* A descriptive error message to help identify the issue.

**API ENDPOINTS :**

**1. *Order Submission***

* **Endpoint:** /process/order-producer/v1
* **Method:** POST
* **Request** (JSON)**:**

{

"orderId": "ORD-12345",

"orderDate": "10/15/2023",

"customerId": "CUST-789",

"storeId": 42,

"items": [

{

"sku": "PROD-001",

"quantity": 2,

"unitPrice": 29.99,

"discountAmount": 5.00

},

{

"sku": "PROD-002",

"quantity": 1,

"unitPrice": 49.99

}

],

"paymentMethod": "CREDIT\_CARD",

"shippingAddress": {

"street": "123 Main St",

"city": "Columbus",

"state": "OH",

"zipCode": "43215",

"country": "USA"

},

"totalAmount": 104.97,

"status": "NEW",

"notes": "Please deliver after 5pm"

}

* **Response:**
* **(Success – 200 OK):** Indicates that the order was successfully validated, transformed, and sent to the webhook.

**{**

**"message": "** **Data has been published successfully!"**

**}**

* **(Failure – 400 Bad Request):** Indicates a validation failure in the input payload (for example, missing fields or wrong types).

**{**

**"error": [**

**"orderId is required and must be a string.",**

**"orderDate should be in MM/DD/YYYY format."**

**]**

**}**

* **(Failure – 500 Internal Server Error):** Indicates an internal server issue, such as failure in transformation or webhook data delivery.

**{**

**"error": "An internal server error has occurred!"**

**}**

**2.** ***Health Check***

* **Endpoint:**  /process/order-producer/v1/healthCheck
* **Method:** GET
* **Response:**
  + **(Success – 200 OK):** Indicates that the Lambda function is active and responding to requests.

**{**

**"status": "ok"**

**}**

* + **(Failure – 500 Internal Server Error):** Indicates a possible failure due to Lambda misconfiguration.

**{**

**"error": "Health check failed due to internal server error"**

**}**

**TROUBLESHOOTING STEPS :**

**1. *Validation Errors (400):***

* If the input data contains wrong or invalid data type or missing values, validation error occurs.

**Action:**

* Ensure the JSON payload sent to /process/order-producer/v1 matches the expected SourceOrderData schema.

**2. *Webhook Failures (500*):**

* If the WEBHOOK\_URL is not set in environment variables, the Lambda will throw an internal error.
* If webhook.site is unreachable or returns an error, it will be logged, and a 500 error returned.

**Action:**

* Check the .env file for correct WEBHOOK\_URL.
* Confirm that webhook.site is active and responsive.
* If deploying, ensure template.yaml includes the environmental variables.

**3. *CloudWatch Log Inspection*:**

View Lambda logs for errors:

* Go to AWS Console.
* Navigate to Logs → Log groups.
* Within Log groups, go to Log streams.
* Look for logs with structured messages:
  + Input request received
  + Transformation success
  + Webhook call success or failure
  + Validation failures