

API Endpoints Description

Overview

The Lambda function can receive three types of events: `order_placement`, `payment_failure`, and `out_of_stock` via query parameters. Depending on the type of event, it interacts with either an Amazon SQS queue or an Amazon SNS topic to handle order placements and send notifications respectively.

Base URL:

```
https://${ApiGateway}.execute-  
api.${AWS::Region}.amazonaws.com/${ApiGatewayStageName}
```

Endpoints

1. Order Placement Event:

- Endpoint:

```
https://${ApiGateway}.execute-  
api.${AWS::Region}.amazonaws.com/${ApiGatewayStageName}?event=ord  
er_placement&product_id=product001&quantity=10&payment_status=suc  
cessful
```

- Parameters:

- `product_id` (Required, default is None)
- `quantity` (Required, default is None)
- `payment_status` (Optional, default is failed)

- **Description:** This endpoint is used for placing orders. The function adds the order message, containing `product_id`, `quantity`, and `payment_status` along with any other query parameters provided, to the SQS Queue. If `payment_status` is not provided, it defaults to failed.

2. Payment Failure Event:

- Endpoint:

```
https://${ApiGateway}.execute-  
api.${AWS::Region}.amazonaws.com/${ApiGatewayStageName}?event=pay  
ment_failure
```

- **Description:** This endpoint is triggered when there is a payment failure event. The function publishes a message, containing all the provided query parameters, to the SNS Topic. Subsequently, a payment failure email notification is sent via AWS SNS.

3. Out of Stock Event:

- **Endpoint:**

```
https://{ApiGateway}.execute-  
api.${AWS::Region}.amazonaws.com/${ApiGatewayStageName}?event=out  
_of_stock
```

- **Description:** This endpoint is triggered for out-of-stock events. Similar to the payment failure event, the function publishes a message to the SNS Topic, and an out-of-stock email notification is sent via AWS SNS.

Usage

- To place an order, use the `order_placement` endpoint with the required parameters `product_id` and `quantity`, and optionally `payment_status`.
- For `payment_failure` and `out_of_stock` events, simply use the respective endpoints with any additional query parameters as needed. The information will be processed and the respective notifications will be sent via SNS.

Responses

- The Lambda function returns a `200 OK` status along with the responses received from SQS or SNS in the body, depending on the event type.
- In case of any error during processing, it returns a `400 Bad Request` status along with the error message in the body.