

A BRIEF SUMMARY OF VARIOUS MICROSERVICES AND THEIR DATABASE TABLE FIELDS

AUTH SERVICE

Handles everything that has to do with user log in. A valid JWT token containing the user's authority will be returned once the login is successful.

USER SERVICE

Some functionalities

- 1: User signup
- 2: View products
- 3: Placing an order
- 4: Assign/revoke user authority

ORDER SERVICE

Handles everything that has to do with cart/order e.g add or remove an item to/from cart, place an order, view orders, etc.

PRODUCT SERVICES

Handles all product-related functionalities e.g add/ update product, view products, search for a product e.t.c

PAYMENT SERVICE

Some functionalities

1. Process different types of payments e.g Credit Card, Bank Transfer, cryptocurrency e.t.c
2. An authorized user can configure an active payment provider to process a single or multiple types of payments.
3. View user's payment transactions

REPORT SERVICE

Handles everything that has to do with generating different types of reports e.g sales reports. It can also send reports via email

NOTIFICATIONS SERVICE

Handles everything that has to do with user notifications. It's capable of sending email, SMS, and app notifications.

CODE SERVICE

Handles everything that has to do with promo and OTP code e.g generating or validating OTP/promo code.

INTER SERVICE COMMUNICATION KEYS AND THEIR MEANING

KEY	MEANING
1	Login request. It returns a JWT token that contains the user id and roles
2	1: Request to forward UserID, Password, Email, and roles to the Auth service during user sign-up. 2: Request to change the status of the user from pending to active. This is done after the user has verified their email address. 3: Request to assign or revoke a user role/authority.
3	Request to perform all order-related functionalities like place an order, view orders, etc.
5,6,10,14,11,18	Request to send an email, SMS, in-app, or web notification message to user e.g send payment or change of password OTP to user's phone. Note: Otp requests are prioritized in the queue since they are more critical to the user.
7	Request to perform all product-related functionalities e.g add a new product, view products, search for a product e.t.c
8	Request to generate or validate a promo / OTP code.
9	Request to generate a report e.g top 10 selling products in each category within a given time range.
13, 15, and 17	Request to get the necessary data to prepare the report.
19	Get and process notification requests from the queue.

DATA DICTIONARY FOR SOME LESS OBVIOUS DATABASE FIELDS

USER SERVICE DATABASE

Table Name	Field Name	Data Type	Description	Possible Values
Phone_number				
	type	Varchar(10)	Describes the type of phone number	Home/Office
	status	Varchar(10)	Describes the status of the phone number	Active/Inactive/Deleted(for soft delete of the record)
User_audit_log				
	activity	Varchar(100)	The kind of activity that was performed by the user	E.g Changed password, Added a new shipping address, Updated phone number from XXXX-xxx-xxx to xxx-xxx-xx-xxx, etc.
User_point_reward_history	points	INT	Users can earn points for purchasing some products. This field contains the total points earned per order.	
User_device				
	type	VARCHAR(45)	Describes the type of device the user used to access his/her account on the platform	Mobile/laptop
	device_id		A unique identifier of the phone/ laptop	
	os_name	VARCHAR(45)	The operating system that is running on the user's device	iOS, Android, Mac Os, Windows, Linux e.t.c
User_device_token	token	VARCxcCHAR(150)	Device token which will be used to send push notification messages to the user's device (Mobile, Web, In-App)	

PAYMENT SERVICE DATABASE

Table Name	Field Name	Data type	Description	Possible Values
Payment				
	Payment_type	VARCHAR(45)	Describes the type of payment	Credit card, Bank Transfer, Cryptocurrency e.t.c
	Status	Varchar(10)	Describes the status of the payment	PENDING, FAILED OR SUCCESS
Payment_provider				
	Reliability_rating	Decimal	Describes the success rate of the provider in terms of processing payments.	
	Status	VARCHAR(10)	The status of the provider.	ACTIVE/INACTIVE/DELETED(for soft delete of a record)
Payment_provider_config				
	Payment_type	VARCHAR(45)	The type of payment the provider will process.	E.g Credit card, Cryptocurrency, Bank transfer, etc.
	Is_active	Boolean	The active partner that is currently processing a particular type of payment. This allows an authorized user to use the admin dashboard to switch payment providers on the fly.	

CODE SERVICE DATABASE

Table Name	Field Name	Data type	Description	Possible Values
promo_code				
	Name	VARCHAR(30)	The name of the promo code(discount) campaign.	Easter Promo
	Discount_percentage	INT	The percentage discount that will be applied to the order when the promo code is used during checkout.	
	Min_order_amount	INT	The minimum total order amount that is required before the promo code discount can be applied to the order.	\$0USD, \$50, \$200, etc.
	Max_usage_allowed	INT	How many times a particular code can be used by a single or multiple users before it becomes invalid.	
	Status	VARCHAR(10)	The status of the code	ACTIVE, INACTIVE, DELETED(For soft delete)
	ExpiryDate	Date	The expiring date of the code.	

NOTIFICATION SERVICE DATABASE

Table Name	Field Name	Data type	Description	Possible Values
User_notification_sent_log			This table is used to log all the notification messages that were sent to the users	
	Notification_type	VARCHAR(10)	The type of notification that was sent to the user	Email, SMS, In-App, etc.
	Status		The delivery status of the message	The default value is Pending.

REPORT SERVICE DATABASE

Table Name	Field Name	Data type	Description	Possible Values
Report			This table is used to log all the reports that were generated by a user.	
	Description	VARCHAR(10)	Contains a brief summary of the report	Requested for top selling products from 01/07/2021 to 03/02/2022
	Status		The delivery status of the report	The default value is SENT