**Blue Arrow - Sync Call**   **Orange Arrow – Async Call Black Arrow - TBD**

1.Registration of users

Auth Service

API Gateway

Load Balancer

User Service

App/Website

User DB

**2. User has booked order successfully**

1. Request will go to load balancer
2. It will be redirected to api gateway
3. Request will go to order service
4. Request will go to payment service for payment
5. Payment service will check inventory from inventory service
6. Payment service will notify order service for order booked
7. Order service will push order booked event
8. Event will be pushed to shipment and notification topic
9. Shipment service will consume this even and start shipment process
10. Notification will service will notify users for order booked event
11. Shipment service will send event for events to notification service

User service DB

User Service

Auth Service

Payment-service

Order-Service

API Gateway

LB

App/Website

Notification DB

NO SQL

Notification Service

Inventory Service DB

Inventory Service

order Service DB

Notification Topic

Shipment Topic

Shipment Service

Shipment Service DB

**3. Order creation failed due to payment failure.**

1. Request will go to load balancer
2. It will be redirected to api gateway
3. Request will go to order service
4. Request will go to payment service for payment
5. Payment service will check inventory from inventory service
6. Payment service will notify order service for payment failed event
7. Inventory service will update inventory after payment failed event
8. Order service will publish order creation failed

User service DB

User Service

Auth Service

Payment-service

Order-Service

API Gateway

LB

App/Website

Inventory Service

order Service DB

Notification Service

Notification Topic

Inventory Service DB

Notification DB

NO SQL