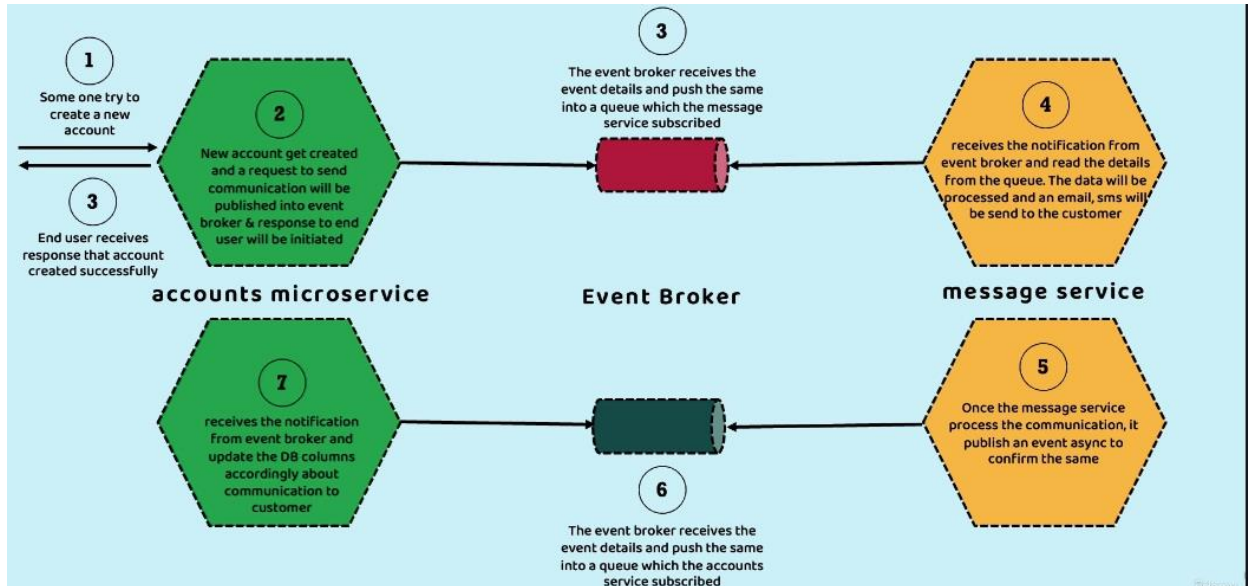


Use Case 4: Message Notification for Account Authentication

Work Flow



Tech Stack

- **Apache Kafka**
 - **Advantage:** Highly scalable and available distributed message broker. Dedicated to large throughput and high performance real-time streaming.
 - **VS. RabbitMQ:** RabbitMQ is easier to set up and guarantees message delivery and designed to handle small volume data with complex routings.
 - **Why use Kafka for Foodopia:** Foodopia has many services that requires notification services. The data throughput requirement could grow huge as the application grows. Places where Kafka is for sure more suitable are transaction service, performance monitoring, order communication between customer and kitchen services.

Basic flow:

1. When user successfully registers its account, the authentication service publishes the registration event to Kafka. The notification service consumes the event and send a welcome email to the user. End of this flow.
2. When user successfully changes its password, the authentication service publishes event to the Kafka. The notification service consumes the event and send a password changed email notification. End of this flow.

3. When the user account is locked, the authentication service publishes the lock account event to Kafka. The notification service consumes the event and send a warning email to the user. End of this flow.
4. The account is logged in from a new device/location, the authentication service publishes the new login event to Kafka. The notification service consumes the event and send a warning email to the user. End of this flow.
5. The account failed to login for 3 times, the authentication service publishes the event to Kafka. The notification service consumes the event and send a warning email to the user. End of this flow.

Alternative flow

A3. The account is unlocked after being locked; the authentication service publishes the unlock account event to Kafka. The notification service consumes the event and send a confirmation email to the user. End of this flow.