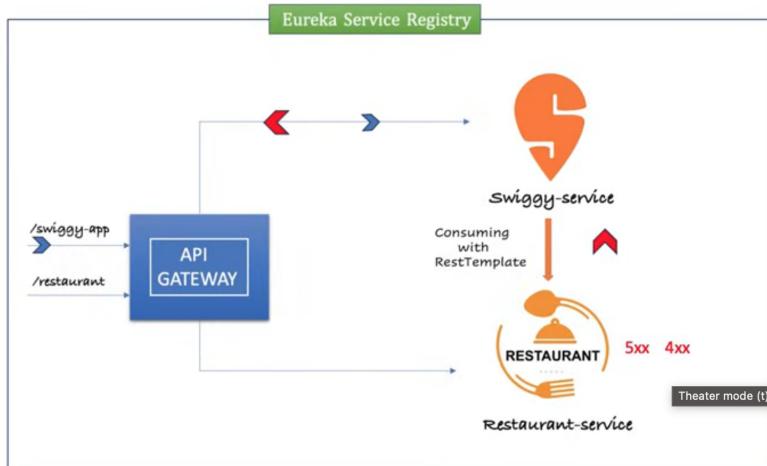


Whenever there is failure we have to specify a client with an error response more meaningful. Error code and status and custom error messages.

When a restaurant gives 4XX and 5XX errors. How to handle this



Endpoint in the swiggy application

```
Project Structure DB Browser
```

```
SwiggyAppController.java
```

```
13
14
15
16
17
18 @GetMapping("/home")
19 public String greetingMessage() { return service.greeting(); }
20
21
22 @GetMapping("/{orderId}")
23 public OrderResponseDTO checkOrderStatus(@PathVariable String orderId) {
24     return service.checkOrderStatus(orderId);
25 }
26
27 }
```

```
SwiggyAppService.java
```

```
10
11
12
13
14
15
16
17
18
19
20
21
```

```
@Autowired
private RestaurantServiceClient restaurantServiceClient;

public String greeting() { return "Welcome to Swiggy App Service"; }

public OrderResponseDTO checkOrderStatus(String orderId) {
    return restaurantServiceClient.fetchOrderStatus(orderId);
}
```

```
package com.javatechie.client;

import ...;

@Component
public class RestaurantServiceClient {
    @Autowired
    private RestTemplate template;

    public OrderResponseDTO fetchOrderStatus(String orderId) {
        return template.getForObject("http://RESTAURANT-SERVICE/restaurant/orders/status/" + orderId, OrderResponseDTO.class);
    }
}
```

Restaurant application:

```
@GetMapping("/orders/status/{orderId}")
public OrderResponseDTO getOrder(@PathVariable String orderId) { order
    return service.getOrder(orderId); orderId: "9u71245" service:
}
```

```
public OrderResponseDTO getOrder(String orderId) { orderId: "9u71245"
    OrderResponseDTO orderResponseDTO = orderDAO.getOrders(orderId); orderId: "9u71245" order
    if (orderResponseDTO != null) {
        return orderResponseDTO;
    } else {
        throw new OrderNotFoundException("Order not available with id :" + orderId);
    }
}
```

Gateway application

```
package com.javatechie;

@SpringBootApplication
@EnableDiscoveryClient
public class SwiggyGatewayApplication {

    public static void main(String[] args) { SpringApplication.run(SwiggyGatewayApplication.class, args); }
}
```

All configurations can be find here

```
SwiggyGatewayApplication.java × application.yml ×

1  spring:
2    cloud:
3      gateway:
4        routes:
5          - id: swiggy-app
6            uri: lb://SWIGGY-APP
7            predicates:
8              - Path=/swiggy/**
9
10
11          - id: restaurant-service
12            uri: lb://RESTAURANT-SERVICE
13            predicates:
14              - Path=/restaurant/**
15
16
17
18 application:
19   name: SWIGGY-GATEWAY
20
21
22 eureka:
23   client:
24     service-url:
25       defaultZone : http://localhost:8761/eureka/
```

System Status

Environment	test	Current time	2023-12-09T10:55:30+05:30
Data center	default	Uptime	00:25
		Lease expiration enabled	true
		Renew threshold	6
		Renews (last min)	12

DS Replicas

localhost			
Instances currently registered with Eureka			
Application	AMIs	Availability Zones	Status
RESTAURANT-SERVICE	n/a (1)	(1)	UP (1) - 192.168.1.47:RESTAURANT-SERVICE:8082
SWIGGY-APP	n/a (1)	(1)	UP (1) - 192.168.1.47:SWIGGY-APP:8081
SWIGGY-GATEWAY	n/a (1)	(1)	UP (1) - 192.168.1.47:SWIGGY-GATEWAY

General Info

From API gateway

GET http://localhost:8080/swiggy/9u71245h

Params Authorization Headers (9) Body Pre-request Script Tests Setters

Query Params

Key	Value
Key	Value

Body Cookies Headers (3) Test Results

Pretty Raw Preview Visualize JSON

```
1 {
2   "orderId": "9u71245h",
3   "name": "HYDERABADI DUM BIRYANI",
4   "qty": 2,
5   "price": 641.0,
6   "orderDate": "2023-12-09T05:37:08.233+00:00",
7   "status": "PREPARING",
8   "estimateDeliveryWindow": 59
9 }
```

For invalid order id - we are getting internal server error

The screenshot shows a Postman request to `http://localhost:8080/swiggy/9u71245`. The response status is 500 Internal Server Error, with a timestamp of 2023-12-09T05:37:59.508+00:00, status 500, error "Internal Server Error", and path "/swiggy/9u71245".

Error in Restaurant service.

The screenshot shows a stack trace in the IntelliJ IDEA Run tab for the `RestaurantServiceApplication`. It highlights an `OrderNotFoundException` with message "Order not available with id :9u71245" at line 23 of `RestaurantService.java`.

Exception in the swiggy app.

The screenshot shows a stack trace in the IntelliJ IDEA Run tab for the `SwiggyAppApplication`. It highlights an `OrderNotFoundException` with message "[dispatcherServlet] in context with path / threw exception [Request processing failed: org.springframework.web.HttpRequestMethodNotSupportedException]" at line 205 of `DispatcherServlet.java`.

```
11
12     @RestControllerAdvice
13     @Slf4j
14     public class RestaurantServiceGlobalExceptionHandler {
15
16         @ExceptionHandler(OrderNotFoundException.class)
17         public ResponseEntity<?> handleOrderNotFoundException(OrderNotFoundException ex){
18             CustomErrorResponse errorResponse= CustomErrorResponse.builder()
19                 .status(HttpStatus.INTERNAL_SERVER_ERROR)
20                 .errorCode(GlobalErrorCode.ERROR_ORDER_NOT_FOUND)
21                 .errorMessage(ex.getMessage())
22                 .build();
23             log.error("RestaurantServiceGlobalExceptionHandler::handleOrderNotFoundException exception caught {}",ex.getMessage());
24             return ResponseEntity.internalServerError().body(errorResponse);
25         }
26     }
```

```
27
28     @ExceptionHandler(Exception.class)
29     public ResponseEntity<?> handleGenericException(Exception ex){
30         CustomErrorResponse errorResponse= CustomErrorResponse.builder()
31             .status(HttpStatus.INTERNAL_SERVER_ERROR)
32             .errorCode(GlobalErrorCode.GENERIC_ERROR)
33             .errorMessage(ex.getMessage())
34             .build();
35         log.error("RestaurantServiceGlobalExceptionHandler::handleGenericException exception caught {}",ex.getMessage());
36         return ResponseEntity.internalServerError().body(errorResponse);
37     }
```

Now error in restaurant service

The screenshot shows a stack trace in the IntelliJ IDEA Run tab for the `RestaurantServiceApplication`. It highlights an `OrderNotFoundException` with message "RestaurantServiceGlobalExceptionHandler::handleOrderNotFoundException exception caught Order not available with id :9u71245" at line 205 of `DispatcherServlet.java`.

Now error in swiggy: no change when compared to previous screenshot.

```

23     @GetMapping("/{orderId}")
Run: SwiggyAppApplication
dispatcherServlet]    : Servlet.service() for servlet [dispatcherServlet] in context with path []
breakpoint : 500 : {"status":"INTERNAL_SERVER_ERROR","errorMessage":"Order not available with id :9u71245","errorCode": "RESTAURANT-SERVICE-1009"}
nonException.java:1021 - Spring-web-6.0.11.jar:6.0.11

```

Now throw swiggy exception and handle it as shown in next screens

```

private RestTemplate template;

public OrderResponseDTO fetchOrderStatus(String orderId) {
    OrderResponseDTO orderResponseDTO=null;
    try {
        orderResponseDTO= template.getForObject(url: "http://RESTAURANT-SERVICE/restaurant/", OrderResponseDTO.class);
    } catch (HttpServerErrorException errorException) {
        log.error("RestaurantServiceClient::fetchOrderStatus caught the HttpServer server error");
        throw new SwiggyServiceException(errorException.getResponseBodyAsString());
    } catch (Exception ex) {
        log.error("RestaurantServiceClient::fetchOrderStatus caught the generic error {}", ex);
    }
}

```

```

import org.springframework.web.bind.annotation.ExceptionHandler;
import org.springframework.web.bind.annotation.RestControllerAdvice;
@Slf4j
public class SwiggyServiceGlobalExceptionHandler {

    @ExceptionHandler(SwiggyServiceException.class)
    public ResponseEntity<?> handleSwiggyServiceException(SwiggyServiceException ex) throws JsonProcessingException {
        log.error("SwiggyServiceGlobalExceptionHandler::handleSwiggyServiceException exception caught {}", ex.getMessage());
        CustomErrorResponse errorResponse = new ObjectMapper().readValue(ex.getMessage(), CustomErrorResponse.class);
        return ResponseEntity.internalServerError().body(errorResponse);
    }
}

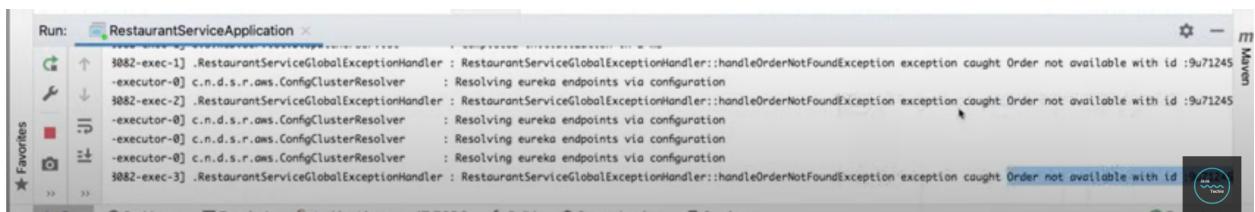
```

```

http://localhost:8080/swiggy/9u71245h
GET http://localhost:8080/swiggy/9u71245
Params Authorization Headers (9) Body Pre-request Script Tests Settings Cookies
Query Params
Key Value Description Bulk Edit
Body Cookies Headers (3) Test Results
Pretty Raw Preview Visualize JSON
1
2     "status": "INTERNAL_SERVER_ERROR",
3     "errorMessage": "Order not available with id :9u71245",
4     "errorCode": "RESTAURANT-SERVICE-1009"
5
500 Internal Server Error 436 ms 261 B Save as example

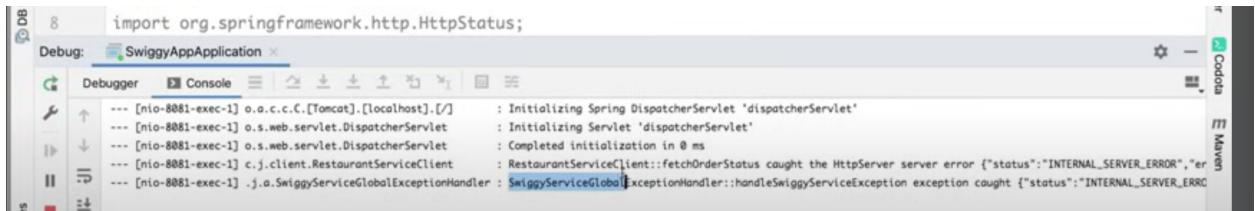
```

In restaurant service



```
Run: RestaurantServiceApplication
3082-exec-1] .RestaurantServiceGlobalExceptionHandler : RestaurantServiceGlobalExceptionHandler::handleOrderNotFoundException exception caught Order not available with id :9u71245
-executor-0] c.n.d.s.r.aws.ConfigClusterResolver : Resolving eureka endpoints via configuration
3082-exec-2] .RestaurantServiceGlobalExceptionHandler : RestaurantServiceGlobalExceptionHandler::handleOrderNotFoundException exception caught Order not available with id :9u71245
-executor-0] c.n.d.s.r.aws.ConfigClusterResolver : Resolving eureka endpoints via configuration
-executor-0] c.n.d.s.r.aws.ConfigClusterResolver : Resolving eureka endpoints via configuration
-executor-0] c.n.d.s.r.aws.ConfigClusterResolver : Resolving eureka endpoints via configuration
3082-exec-3] .RestaurantServiceGlobalExceptionHandler : RestaurantServiceGlobalExceptionHandler::handleOrderNotFoundException exception caught Order not available with id :9u71245
```

In swiggy service now



```
DB 8 import org.springframework.http.HttpStatus;
Debug: SwiggyAppApplication
Debugger Console
--- [nio-8881-exec-1] o.a.c.c.C.[Tomcat].[localhost].[/] : Initializing Spring DispatcherServlet 'dispatcherServlet'
--- [nio-8881-exec-1] o.s.web.servlet.DispatcherServlet : Initializing Servlet 'dispatcherServlet'
--- [nio-8881-exec-1] o.s.web.servlet.DispatcherServlet : Completed initialization in 0 ms
--- [nio-8881-exec-1] c.j.client.RestaurantServiceClient : RestaurantServiceClient::fetchOrderStatus caught the HttpServer server error {"status":"INTERNAL_SERVER_ERROR","er
--- [nio-8881-exec-1] j.o.SwiggyServiceGlobalExceptionHandler : SwiggyServiceGlobalExceptionHandler::handleSwiggyServiceException exception caught {"status":"INTERNAL_SERVER_ERRO
```

Whenever there is failure we have to specify a client with an error response more meaningful. Error code and status and custom error messages.