# 서비스 로직 작성 응답 메시지 정규화

#### 공통 응답 Dto 설계

```
@NoArgsConstructor(access = AccessLevel.PRIVATE)
                                             @Getter
                                             public class ApiResponseDto<T> {
                                               private String code;
                                                private String message;
                                                private T data;
                                                private ApiResponseDto(String code, String message) {
public으로 컨트롤러에서 호출할 시
통일성 문제 발생
                                                  this.code = code:
                                                  this.message = message;
ex. code와 message의 내용이
개발자마다 달라질 수 있음
                                                private ApiResponseDto(String code, String message, T data) {
                                                  this.code = code;
                                                  this.message = message;
=> 따라서, 응답 구조 통일화
                                                  this.data = data;
                                                public static <T> ApiResponseDto<T> createOk(T data) {
                                                  return new ApiResponseDto<>("OK", "요청이 `성공하였습니다.", data);
응답 생성자 3가지
(생성 성공, 일반 성공, 오류)
                                               public static ApiResponseDto<String> defaultOk() {
                                                  return ApiResponseDto.createOk(null);
                                                public static ApiResponseDto<String> createError(String code, String message) {
                                                  return new ApiResponseDto<>(code, message);
```

@ToString

### Api 응답에 공통 응답 Dto 적용

```
@GetMapping(value = "/test")
public ApiResponseDto<String> test() {
    String response = remoteAlimService.sms();
    return ApiResponseDto.createOk(response);
}

@PostMapping(value = "/sms")
public ApiResponseDto<SendSmsDto.Response> sms(@RequestBody SendSmsDto.Request request) {
    var response = remoteAlimService.sendSms(request);
    return ApiResponseDto.createOk(response);
}

(alim API 요청 시, 반환된 객체를 데이터로 반환)
```

```
@Slf4j
                                                    500
@Order(value = 1)
@RestControllerAdvice
public class ApiCommonAdvice {
  @ResponseStatus(HttpStatus.INTERNAL_SERVER_ERROR)
  @ExceptionHandler({Exception.class})
  public ApiResponseDto<String> handleException(Exception e) {
    return ApiResponseDto. CreateError(
         "ServerError",
"서버 에러입니다."
    );
                                                    ApiResponseDto
```

## Api Exception 설계

```
@Getter
                                 @NoArgsConstructor(access = AccessLevel.PROTECTED)
                                 public class ApiError extends RuntimeException {
                                   protected String errorCode;
                                   protected String errorMessage;
                                 @NoArgsConstructor(access = AccessLevel.PROTECTED)
                                 public class ClientError extends ApiError {
                                           Client Error 종류 구분
                                            (BadParam or NotFound)
public class BadParameter extends ClientError {
                                                                               public class NotFound extends ClientError {
  public BadParameter(String errorMessage) {
                                                                                 public NotFound(String errorMessage) {
    this.errorCode = "BadParameter";
                                                                                   this.errorCode = "NotFound";
    this.errorMessage = errorMessage;
                                                                                   this.errorMessage = errorMessage;
```

enum을 통해 Client Error 종류를 구분하는 방법도 존재

#### AOP Advice에 Api Exception 적용

```
@Slf4j
@Order(value = 1)
@RestControllerAdvice
public class ApiCommonAdvice {
  @ResponseStatus(HttpStatus.BAD_REQUEST)
  @ExceptionHandler({ClientError.class})
  public ApiResponseDto<String> handleClientError(ClientError e) {
                                                                 (BadParam 처리)
    return ApiResponseDto.createError(
        e.getErrorCode(),
        e.getErrorMessage()
 @ResponseStatus(HttpStatus.INTERNAL_SERVER_ERROR)
  @ExceptionHandler({Exception.class})
 public ApiResponseDto<String> handleException(Exception e) {
    return ApiResponseDto.createError(
        "ServerError",
        "서버 에러입니다."
```