

Annotations support

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1. @RestController(@Controller+@ResponseBody)
2. @RequestBody
3. @RequestParam
4. @PathVariable
5. @RequestMapping
6. @GetMapping
7. @PostMapping
8. @PutMapping
9. @PatchMapping
10. @DeleteMapping
11. @RestControllerAdvice
12. @ExceptionHandler
13. @Service
14. @Component
15. @Repository
16. @Transactional

Usage of DEV-tools

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=> It informs SpringBoot container to automatically reload the applications when changes are made in the project.

```
<dependency>
    <groupId>org.springframework.boot</groupId>
    <artifactId>spring-boot-devtools</artifactId>
</dependency>
```

Code of Reading the record

=====

```
public class TouristNotFoundException extends RuntimeException {
    private static final long serialVersionUID = 1L;
    public TouristNotFoundException(String message) {
        super(message);
    }
}
```

Service layer

=====

```
Optional<Tourist> optional = repo.findById(id);
```

```
if (optional.isPresent()) {
    return optional.get();
} else {
    throw new TouristNotFoundException(" tourist with id "+id+" not found");
}
```

or

```
return repo.findById(id)
    .orElseThrow(() -> new TouristNotFoundException("tourist with id :: " +
id + " not found"));
```

refer:: SpringRest-06-TicketManagementApp

SpringRest/SpringMVC is having PreDefined Controller to handle the

Exceptions/HttpErrors which is gives default whitelable error pages.

```
ErrorController(I)
|
AbstractController(C)
|
BasicErrorController(C)
|=> errorHtml(,,,): ModelAndView
|=> error(): ResponseEntity<T>
```

SpringBootMVC

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```
@RequestMapping(produces = MediaType.TEXT_HTML_VALUE)
public ModelAndView errorHtml(HttpServletRequest request, HttpServletResponse
response) {
    HttpStatus status = getStatus(request);
    Map<String, Object> model =
Collections.unmodifiableMap(getErrorAttributes(request,
getErrorAttributeOptions(request, MediaType.TEXT_HTML)));
    response.setStatus(status.value());
    ModelAndView modelAndView = resolveErrorView(request, response, status,
model);
    return (modelAndView != null) ? modelAndView : new ModelAndView("error",
model);
}
```

SpringBootRest

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```
@RequestMapping
public ResponseEntity<Map<String, Object>> error(HttpServletRequest request) {
    HttpStatus status = getStatus(request);
    if (status == HttpStatus.NO_CONTENT) {
        return new ResponseEntity<>(status);
    }
    Map<String, Object> body = getErrorAttributes(request,
getErrorAttributeOptions(request, MediaType.ALL));
    return new ResponseEntity<>(body, status);
}
```

Note::

@RestControllerAdvice =>@ControllerAdvice+@ResponseBody+@Component

GlobalExceptionHandler in SpringRest

=====

@RestControllerAdvice

```
public class TouristErrorControllerAdvice {

    @ExceptionHandler(TouristNotFoundException.class)
    public ResponseEntity<ErrorDetails>
handleTouristNotFound(TouristNotFoundException tf) {

        System.out.println("TouristErrorControllerAdvice.handleTouristNotFound()");
        ErrorDetails details = new ErrorDetails(LocalDate.now(),
tf.getMessage(), "404-NotFound");
        return new ResponseEntity<ErrorDetails>(details, HttpStatus.NOT_FOUND);
    }
}
```

```
@ExceptionHandler(Exception.class)
public ResponseEntity<ErrorDetails> handleAllProblems(Exception e) {
    System.out.println("TouristErrorControllerAdvice.handleAllProblems()");
    ErrorDetails details = new ErrorDetails(LocalDateTime.now(),
e.getMessage(), "Problem in exeuction");
    return new ResponseEntity<ErrorDetails>(details,
HttpStatus.INTERNAL_SERVER_ERROR);
}
}
```

refer:: SpringRest-07-TicketManagementAppErrorResponseApp