

```
1 MovieBookingDTO ✘ 2 MovieBookingSer ✘ 3 ExceptionContro ✘ 4 MovieBookingVal ✘ 5 MovieBookingRep ✘
```

```
30 import java.time.LocalDate;
4
5 import javax.validation.constraints.FutureOrPresent;
6 import javax.validation.constraints.Max;
7 import javax.validation.constraints.Min;
8 import javax.validation.constraints.NotNull;
9 import javax.validation.constraints.Pattern;
10
11 import com.infy.moviebooking.entity.MovieBooking;
12
13 public class MovieBookingDTO {
14
15     private Integer bookingId;
16
17     @NotNull(message="{bookmovie.moviename.notpresent}")
18     private String movieName;
19
20     @NotNull(message="{bookmovie.screenname.notpresent}")
21     @Pattern(regexp="(Sapphire|Turquoise|Rhombus)", message="{bookmovie.screenname.invalid}")
22     private String screenName;
23
24     @NotNull(message="{bookmovie.showdate.notpresent}")
25     @FutureOrPresent(message="{bookmovie.showdate.invalid}")
26     private LocalDate showDate;
27
28     @NotNull(message="{bookmovie.noofseats.notpresent}")
29     @Min(value=1, message="{bookmovie.noofseats.invalid}")
30     @Max(value=5, message="{bookmovie.noofseats.invalid}")
31     private Integer noOfSeats;
32
33     private Double bookingAmount;
34
35     private String paymentType;
36
37     private Long customerPhoneNo;
```

Writable Smart Insert 3 : 1 : 36



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MovieBookingDTO MovieBookingSer ExceptionContro MovieBookingVal MovieBoo

```
1 package com.infy.moviebooking.entity;
2
3 import java.time.LocalDate;
4 @Entity
5 @Table(name="movie_booking")
6 public class MovieBooking {
7
8     @Id
9     @GeneratedValue(strategy=GenerationType.IDENTITY)
10    private Integer bookingId;
11    private String movieName;
12    private String screenName;
13    private LocalDate showDate;
14    private Integer noOfSeats;
15    private Double bookingAmount;
16    private String paymentType;
17    private Long customerPhoneNo;
18
19    public Integer getBookingId() {
20        return bookingId;
21    }
22
23    public void setBookingId(Integer bookingId) {
24        this.bookingId = bookingId;
25    }
26
27    public String getMovieName() {
28        return movieName;
29    }
30
31    public void setMovieName(String movieName) {
32        this.movieName = movieName;
33    }
34
35    public String getScreenName() {
36        return screenName;
37    }
38
39    public void setScreenName(String screenName) {
40        this.screenName = screenName;
41    }
42}
```

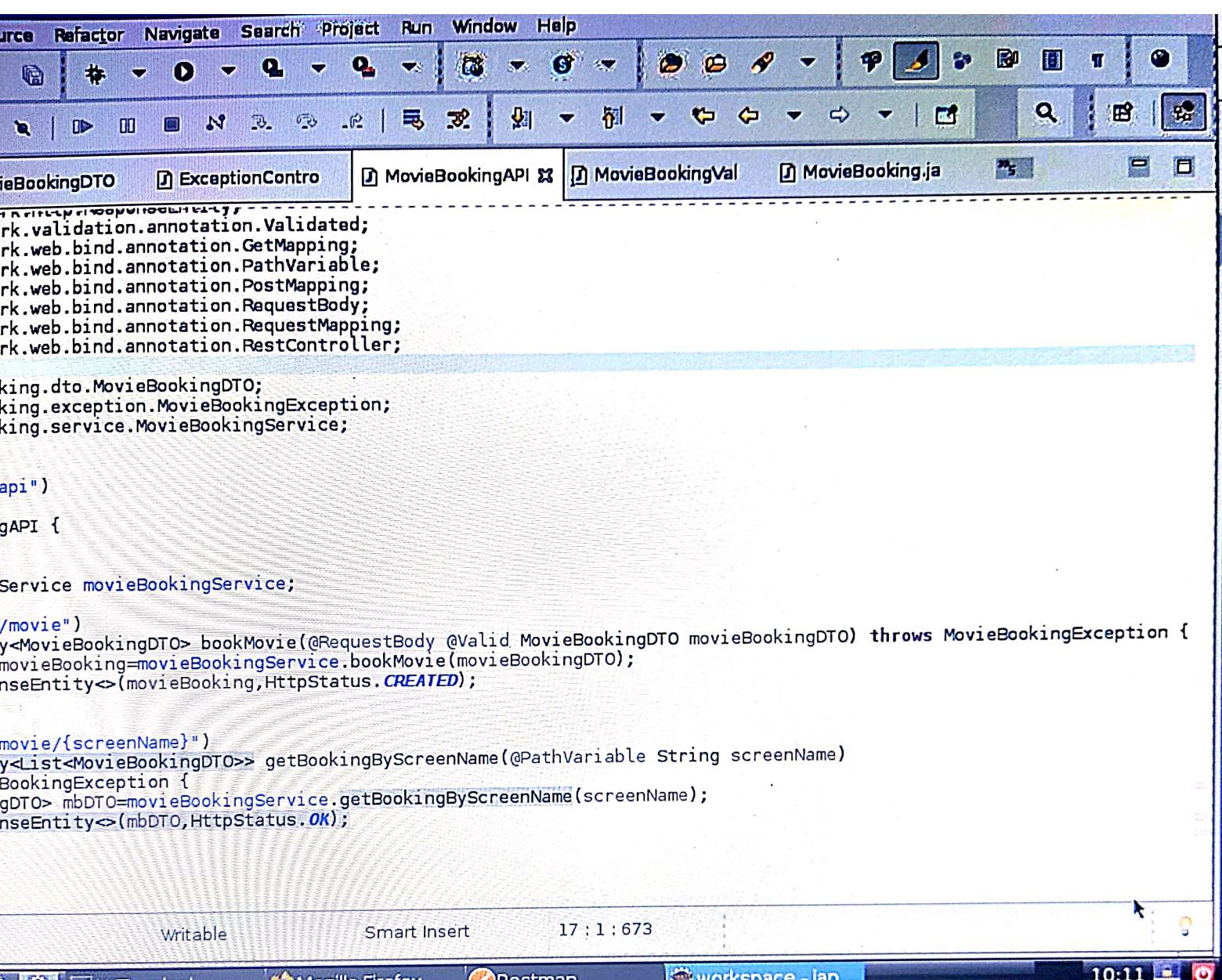
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MovieBookingDTO ExceptionController MovieBookingAPI MovieBookingVal MovieBooking.java

```
1 import com.infy.moviebooking.dto.MovieBookingDTO;
2 import com.infy.moviebooking.exception.MovieBookingException;
3 import com.infy.moviebooking.service.MovieBookingService;
4
5 @RestController
6 @RequestMapping(value="/api")
7 @Validated
8 public class MovieBookingAPI {
9
10     @Autowired
11     private MovieBookingService movieBookingService;
12
13     @PostMapping(value="/movie")
14     public ResponseEntity<MovieBookingDTO> bookMovie(@RequestBody @Valid MovieBookingDTO movieBookingDTO) throws MovieBookingException {
15         MovieBookingDTO movieBooking=movieBookingService.bookMovie(movieBookingDTO);
16         return new ResponseEntity<>(movieBooking,HttpStatus.CREATED);
17     }
18
19     @GetMapping(value="/movie/{screenName}")
20     public ResponseEntity<List<MovieBookingDTO>> getBookingByScreenName(@PathVariable String screenName)
21         throws MovieBookingException {
22         List<MovieBookingDTO> mbDTO=movieBookingService.getBookingByScreenName(screenName);
23         return new ResponseEntity<>(mbDTO,HttpStatus.OK);
24     }
25 }
```

Writable Smart Insert 17 : 1 : 673



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MovieBookingDTO ExceptionControl MovieBookingAPI MovieBooking.java MovieBookingRep

```
1 package com.infy.moviebooking.repository;
2
3 import java.time.LocalDate;
4
5 public interface MovieBookingRepository extends CrudRepository<MovieBooking, Integer> {
6     @Query("select m from MovieBooking m where m.customerPhoneNo=?1 and m.showDate=?2")
7     List<MovieBooking> getBookingDetails(Long customerPhoneNo, LocalDate showDate);
8     List<MovieBooking> findByScreenName(String ScreenName);
9 }
10
11
12
13
14
15
16
```

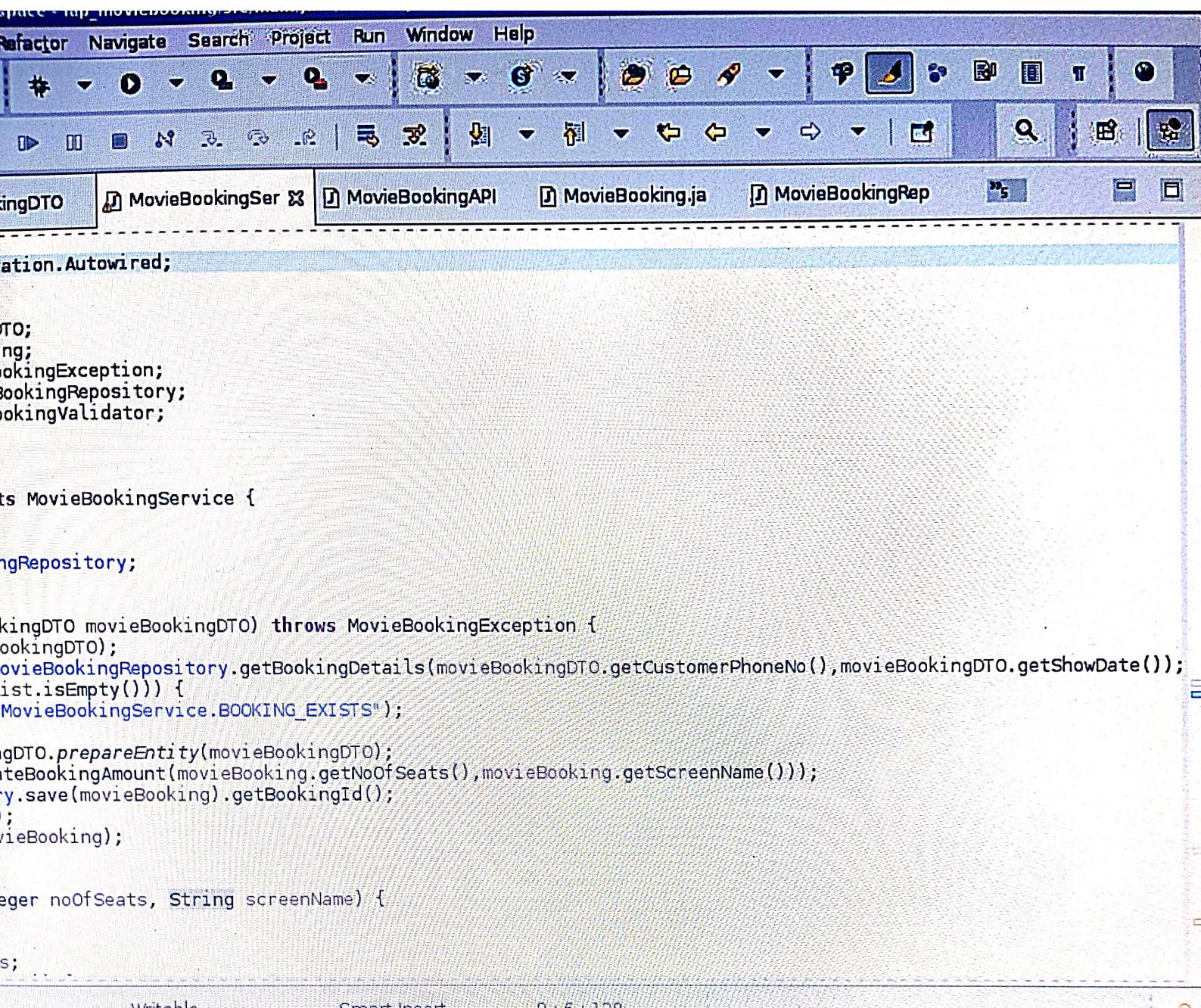
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MovieBookingDTO MovieBookingSer MovieBookingAPI MovieBooking.ja MovieBookingRep

```
7
8 import org.springframework.beans.factory.annotation.Autowired;
9 import org.springframework.stereotype.Service;
10
11 import com.infy.moviebooking.dto.MovieBookingDTO;
12 import com.infy.moviebooking.entity.MovieBooking;
13 import com.infy.moviebooking.exception.MovieBookingException;
14 import com.infy.moviebooking.repository.MovieBookingRepository;
15 import com.infy.moviebooking.validator.MovieBookingValidator;
16
17 @Service(value="movieBookingService")
18 @Transactional
19 public class MovieBookingServiceImpl implements MovieBookingService {
20
21     @Autowired
22     private MovieBookingRepository movieBookingRepository;
23
24     @Override
25     public MovieBookingDTO bookMovie(MovieBookingDTO movieBookingDTO) throws MovieBookingException {
26         MovieBookingValidator.validate(movieBookingDTO);
27         List<MovieBooking> movieBookingList=movieBookingRepository.getBookingDetails(movieBookingDTO.getCustomerF
28         if(Boolean.FALSE.equals(movieBookingList.isEmpty())) {
29             throw new MovieBookingException("MovieBookingService.BOOKING_EXISTS");
30         }
31         MovieBooking movieBooking=MovieBookingDTO.prepareEntity(movieBookingDTO);
32         movieBooking.setBookingAmount(calculateBookingAmount(movieBooking.getNoOfSeats(),movieBooking.getScreenNa
33         Integer movieId=movieBookingRepository.save(movieBooking).getBookingId();
34         movieBookingDTO.setBookingId(movieId);
35         return MovieBookingDTO.prepareDTO(movieBooking);
36     }
37
38     public Double calculateBookingAmount(Integer noOfSeats, String screenName) {
39         Double bookingAmount = 0.0;
40         if (screenName.equals("Rhombus")) {
41             bookingAmount = 100.0 * noOfSeats;
42         } else if (screenName.equals("Cubicle")) {
43             bookingAmount = 150.0 * noOfSeats;
44         }
45     }
46 }
```

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```
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eBookingDTO MovieBookingSer X MovieBookingAPI MovieBooking.ja MovieBookingRep
throw new MovieBookingException("MovieBookingService.BOOKING_EXISTS");
}
MovieBooking movieBooking=MovieBookingDTO.prepareEntity(movieBookingDTO);
movieBooking.setBookingAmount(calculateBookingAmount(movieBooking.getNoOfSeats(),movieBooking.getScreenName());
Integer movieId=movieBookingRepository.save(movieBooking).getBookingId();
movieBookingDTO.setBookingId(movieId);
return MovieBookingDTO.prepareDTO(movieBooking);
}

public Double calculateBookingAmount(Integer noOfSeats, String screenName) {
    Double bookingAmount = 0.0;
    if (screenName.equals("Rhombus")) {
        bookingAmount = 100.0 * noOfSeats;
    } else if (screenName.equals("Sapphire")) {
        bookingAmount = 200.0 * noOfSeats;
    } else {
        bookingAmount = 300.0 * noOfSeats;
    }
    return bookingAmount;
}

@Override
public List<MovieBookingDTO> getBookingByScreenName(String screenName) throws MovieBookingException {
    List<MovieBooking> movieBookingList=movieBookingRepository.findByScreenName(screenName);
    if(movieBookingList.isEmpty()) {
        throw new MovieBookingException("MovieBookingService.NO_BOOKING");
    }
    List<MovieBookingDTO> dtoList=new ArrayList<>();
    movieBookingList.stream().forEach(x->dtoList.add(new MovieBookingDTO().prepareDTO(x)));
    return dtoList;
}
}

Writable Smart Insert 63 : 1 : 2364
```

The screenshot shows a Java code editor with the following details:

- Toolbar:** Standard IDE toolbar with icons for file operations, search, and navigation.
- Project Bar:** Shows tabs for "MovieBookingSer", "ExceptionContro", "MovieBookingAPI", "MovieBooking.ja", "MovieBookingRep", and a file icon.
- Code Area:** The code is annotated with line numbers (17 to 51) and uses color-coded syntax highlighting for Java keywords, comments, and strings.
- Annotations and Imports:** The code includes annotations like `@RestControllerAdvice`, `@ExceptionHandler`, and `@MethodArgumentNotValidException`. It also imports classes from `org.springframework.web.bind.annotation` and `com.infy.moviebooking.exception`.
- Logger:** A logger named `LOGGER` is used throughout the code.
- Environment:** The code uses the `Environment` interface to get properties.
- Response Entities:** The code handles exceptions by returning `ResponseEntity<ErrorInfo>` objects with specific error codes and messages.

```
17 import org.springframework.web.bind.annotation.RestControllerAdvice;
18
19 import com.infy.moviebooking.exception.MovieBookingException;
20
21 @RestControllerAdvice
22 public class ExceptionControllerAdvice {
23
24     private static final Log LOGGER = LoggerFactory.getLog(ExceptionControllerAdvice.class);
25
26     @Autowired
27     private Environment environment;
28
29     @ExceptionHandler(MovieBookingException.class)
30     public ResponseEntity<ErrorInfo> movieBookingExceptionHandler(MovieBookingException exception) {
31         LOGGER.error(exception.getMessage(), exception);
32         ErrorInfo errorInfo = new ErrorInfo();
33         errorInfo.setErrorCode(HttpStatus.BAD_REQUEST.value());
34         errorInfo.setErrorMessage(environment.getProperty(exception.getMessage()));
35         return new ResponseEntity<>(errorInfo, HttpStatus.BAD_REQUEST);
36     }
37
38     @ExceptionHandler(Exception.class)
39     public ResponseEntity<ErrorInfo> generalExceptionHandler(Exception exception) {
40         LOGGER.error(exception.getMessage(), exception);
41         ErrorInfo errorInfo = new ErrorInfo();
42         errorInfo.setErrorCode(HttpStatus.INTERNAL_SERVER_ERROR.value());
43         errorInfo.setErrorMessage(environment.getProperty("General.EXCEPTION_MESSAGE"));
44         return new ResponseEntity<>(errorInfo, HttpStatus.INTERNAL_SERVER_ERROR);
45     }
46
47     @ExceptionHandler({MethodArgumentNotValidException.class, ConstraintViolationException.class})
48     public ResponseEntity<ErrorInfo> validatorExceptionHandler(Exception exception) {
49         LOGGER.error(exception.getMessage(), exception);
50         String errorMsg;
51         if (exception instanceof MethodArgumentNotValidException) {
52             errorMsg = ((MethodArgumentNotValidException) exception).getBindingResult().getGlobalErrors().get(0).getDefaultMessage();
53         } else {
54             errorMsg = ((ConstraintViolationException) exception).getConstraintViolations().get(0).getMessage();
55         }
56         ErrorInfo errorInfo = new ErrorInfo();
57         errorInfo.setErrorCode(HttpStatus.BAD_REQUEST.value());
58         errorInfo.setErrorMessage(errorMsg);
59         return new ResponseEntity<>(errorInfo, HttpStatus.BAD_REQUEST);
60     }
61 }
```

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```
Source Refactor Navigate Search Project Run Window Help
File Edit View Insert Tools Options Plugins
ExceptionControl MovieBookingAPI MovieBooking.java MovieBookingRep
MovieBookingSer ExceptionControl MovieBookingAPI MovieBooking.java MovieBookingRep
ErrorInfo errorInfo = new ErrorInfo();
errorInfo.setErrorCode(HttpStatus.BAD_REQUEST.value());
errorInfo.setErrorMessag
environment.getProperty(exception.getMessage()));
return new ResponseEntity<>(errorInfo, HttpStatus.BAD_REQUEST);
}

@ExceptionHandler(Exception.class)
public ResponseEntity<ErrorInfo> generalExceptionHandler(Exception exception) {
    LOGGER.error(exception.getMessage(), exception);
    ErrorInfo errorInfo = new ErrorInfo();
    errorInfo.setErrorCode(HttpStatus.INTERNAL_SERVER_ERROR.value());
    errorInfo.setErrorMessag
    environment.getProperty("General.EXCEPTION_MESSAGE"));
    return new ResponseEntity<>(errorInfo, HttpStatus.INTERNAL_SERVER_ERROR);
}

@ExceptionHandler({MethodArgumentNotValidException.class, ConstraintViolationException.class})
public ResponseEntity<ErrorInfo> validatorExceptionHandler(Exception exception) {
    LOGGER.error(exception.getMessage(), exception);
    String errorMsg;
    if (exception instanceof MethodArgumentNotValidException) {
        MethodArgumentNotValidException manvException = (MethodArgumentNotValidException) exception;
        errorMsg = manvException.getBindingResult().getAllErrors().stream().map(Obj
            .collect(Collectors.joining(", ")));
    } else {
        ConstraintViolationException cvException = (ConstraintViolationException) exception;
        errorMsg = cvException.getConstraintViolations().stream().map(ConstraintViolation::getM
            .collect(Collectors.joining(", ")));
    }
    ErrorInfo errorInfo = new ErrorInfo();
    errorInfo.setErrorCode(HttpStatus.BAD_REQUEST.value());
    errorInfo.setErrorMessag
    environment.getProperty("General.EXCEPTION_MESSAGE"));
    return new ResponseEntity<>(errorInfo, HttpStatus.BAD_REQUEST);
}
}
```

Writable

Smart Insert

66 : 1 : 2872

workspace - lap\_moviebooking/src/main/java/com/infy/moviebooking/validator/MovieBookingValidator.java

Source Refactor Navigate Search Project Run Window Help

MovieBookingSer ExceptionContro MovieBookingAPI MovieBookingVal MovieBookingRep

```
1 package com.infy.moviebooking.validator;
2
3 import com.infy.moviebooking.dto.MovieBookingDTO;
4
5 public class MovieBookingValidator {
6     private MovieBookingValidator() {
7
8     }
9
10    public static void validate(MovieBookingDTO movieBookingDTO) throws MovieBookingException {
11        if(Boolean.FALSE.equals(isValidCustomerPhoneNo(movieBookingDTO.getCustomerPhoneNo()))) {
12            throw new MovieBookingException("Validator.INVALID_CUSTOMER_PHONE_NO");
13        }
14        if(Boolean.FALSE.equals(isValidPaymentType(movieBookingDTO.getPaymentType()))) {
15            throw new MovieBookingException("Validator.INVALID_PAYMENT_TYPE");
16        }
17    }
18
19    public static Boolean isValidPaymentType(String paymentType) {
20        String paymentType1="Card";
21        String paymentType2="Wallet";
22        String paymentType3="NetBanking";
23        if(paymentType1.equals(paymentType)||paymentType2.equals(paymentType)||paymentType3.equals(paymentType))
24            return true;
25        }
26        else
27            return false;
28    }
29
30    public static Boolean isValidCustomerPhoneNo(Long customerPhoneNo) {
31        String mob=customerPhoneNo.toString();
32        Boolean b=true;
33        if(mob.length()==10) {
34            char c=mob.charAt(0);
35            if(c<='9'&&c>='0') {
36                for(int i=1;i<10;i++) {
37                    if(mob.charAt(i)<='9'&&mob.charAt(i)>='0') {
38                        continue;
39                    } else {
40                        b=false;
41                        break;
42                    }
43                }
44            } else {
45                b=false;
46            }
47        } else {
48            b=false;
49        }
50        return b;
51    }
52}
```

Writable Smart Insert 1:1:0

Workspace - Tap\_moviebooking/src/main/java/com/tap/moviebooking/validator/MovieBookingValidator.java - Eclipse IDE

Source Refactor Navigate Search Project Run Window Help

movieBookingSer ExceptionControl MovieBookingAPI MovieBookingVal MovieBookingRep

```
if(Boolean.FALSE.equals(isValidPaymentType(movieBookingDTO.getPaymentType())))) {
    throw new MovieBookingException("Validator.INVALID_PAYMENT_TYPE");
}

public static Boolean isValidPaymentType(String paymentType) {
    String paymentType1="Card";
    String paymentType2="Wallet";
    String paymentType3="NetBanking";
    if(paymentType1.equals(paymentType)||paymentType2.equals(paymentType)||paymentType3.equals(paymentType))
        return true;
    }
    else
        return false;
}

public static Boolean isValidCustomerPhoneNo(Long customerPhoneNo) {
    String mob=customerPhoneNo.toString();
    Boolean b=true;
    if(mob.length()==10) {
        char c=mob.charAt(0);
        Integer a=Character.getNumericValue(c);
        if((a>=3)&&(a<=9))
            b=true;
        else
            b=false;
        return b;
    }
    else
        return false;
}

}

Writable Smart Insert 49 : 1 : 1336
```

ExceptionControllerAdvice	4	1	5
MovieBooking	2	0	2
MovieBookingAPI - Annotations	3	0	3
MovieBookingAPI - bookMovie	2	0	2
MovieBookingAPI - getBookingByScreenName	2	0	2
MovieBookingDTO	5	1	6
MovieBookingServiceImpl - Annotations	3	0	3
MovieBookingServiceImpl - bookMovie	4	0	4
MovieBookingServiceImpl - getBookingByScreenName	2	0	2
MovieBookingValidator - isValidCustomerPhoneNo	8	0	8
MovieBookingValidator - isValidPaymentType	8	0	8
MovieBookingValidator - validate	2	0	2
Total	52	3	55