

Flight Reservation

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Entity - AbstractEntity

```
package com.psa.reservation_app_5.entities;
import javax.persistence.GeneratedValue;
import javax.persistence.GenerationType;
import javax.persistence.Id; import
javax.persistence.MappedSuperclass;
@MappedSuperclass
public class AbstractEntity {
    @Id
    @GeneratedValue(strategy = GenerationType.IDENTITY)
    private long id;

    public long getId() {    return
id;
    }

    public void setId(long id) {
this.id = id;
    }
}
```

User

```
package com.psa.reservation_app_5.entities;

import javax.persistence.Entity;
@Entity
public class User extends AbstractEntity {
    private String firstName;
    private String lastName;
    private String email;    private
String password;    public
String getFirstName() {
return firstName;
    }
}
```

```

    public void setFirstName(String firstName) {
this.firstName = firstName;
    }

    String getLastName() { return
        lastName;

    public void setLastName(String lastName) {
this.lastName = lastName;
    }
    public String getEmail() {
return email;
    }

    public void setEmail(String email) {
        this.email = email;
    }
    public String getPassword() {
return password;
    }

    public void setPassword(String password) {
        this.password = password;
    }
}

```

Flight

```

package com.psa.reservation_app_5.entities;

import java.sql.Date; import
java.sql.Timestamp; import
javax.persistence.Entity;
@Entity
public class Flight extends AbstractEntity {
private String flightNumber; private String
operatingAirlines; private String
departureCity; private String

```

```
arrivalCity; private Date dateofDeparture; private  
Timestamp estimatedDepartureTime; String  
getFlightNumber() { return flightNumber;
```

```
    public void setFlightNumber(String flightNumber) {  
        this.flightNumber = flightNumber;  
    }  
    public String getOperatingAirlines() {  
        return operatingAirlines;  
    }
```

```
    public void setOperatingAirlines(String  
operatingAirlines) {        this.operatingAirlines =  
operatingAirlines;  
    }
```

```
    public String getDepartureCity()  
{  
    return departureCity;  
}
```

```
    public void setDepartureCity(String departureCity) {  
this.departureCity = departureCity;  
    }
```

```
    public String getArrivalCity()  
{  
    return arrivalCity;  
}
```

```
    public void setArrivalCity(String arrivalCity) {  
this.arrivalCity = arrivalCity;  
    }
```

```
    public Date getDateofDeparture()  
{  
    return dateofDeparture;  
}
```

```
    public void setDateofDeparture(Date dateofDeparture)
```

```

{   this.dateofDeparture = dateofDeparture; }
    Timestamp getEstimatedDepartureTime() {
        return estimatedDepartureTime;

        public void setEstimatedDepartureTime(Timestamp
estimatedDepartureTime) {
this.estimatedDepartureTime =
estimatedDepartureTime;
    }
}

```

Passenger

```

package com.psa.reservation_app_5.entities;

import javax.persistence.Entity;
@Entity
public class Passenger extends AbstractEntity {
    private String firstName;
    private String lastName; private
String middleName; private
String email; private String
phone; public String
getFirstName() { return
firstName;
    }
    public void setFirstName(String firstName) {
this.firstName = firstName;
    }

    public String getLastName() {
return lastName;
    }
}

```

```

    public

}

    public void setLastName(String lastName) {
this.lastName = lastName;
    }

    public String getMiddleName() {
return middleName;
    }

    public void setMiddleName(String middleName) {
this.middleName = middleName;
    }
    public String getEmail() {
return email;
    }

    public void setEmail(String email) {
this.email = email;
    }
    public String getPhone() {
return phone;
    }

    public void setPhone(String phone) {
this.phone = phone;
    }
}

```

Reservation

```

package
com.psa.reservation_app_5.entities; import
javax.persistence.Entity; import
javax.persistence.OneToOne;

```

```
@Entity public class Reservation extends AbstractEntity
{
    private boolean checkedIn;

    private int numberOfBags;

    @OneToOne
    private Passenger passenger;

    @OneToOne
    private Flight flight;

    public boolean isCheckedIn() {
return checkedIn;
    }

    public void setCheckedIn(boolean checkedIn) {
this.checkedIn = checkedIn;
    }

    public int getNumberOfBags() {
        return numberOfBags;
    }

    public void setNumberOfBags(int numberOfBags) {
this.numberOfBags = numberOfBags;
    }

    public Passenger getPassenger() {
        return passenger;
    }

    public void setPassenger(Passenger passenger) {
this.passenger = passenger;
    }

    public Flight getFlight() {
        return flight;
    }
}
```

```

    }

    public void setFlight(Flight flight) {

this.flight = flight;

    }

}

```

Repository-

FlightRepository

```

package com.psa.reservation_app_5.repository;

import

java.util.Date; import java.util.List;

import org.springframework.data.jpa.repository.JpaRepository;

import org.springframework.data.jpa.repository.Query; import

org.springframework.data.repository.query.Param; import

com.psa.reservation_app_5.entities.Flight; public interface

FlightRepository extends JpaRepository<Flight, Long> {

}

```

PassengerRepository

```

package com.psa.reservation_app_5.repository; import

org.springframework.data.jpa.repository.JpaRepository; import

com.psa.reservation_app_5.entities.Passenger; public interface

PassengerRepository extends JpaRepository<Passenger, Long> {

}

```

ReservationRepository

```

package com.psa.reservation_app_5.repository; import

org.springframework.data.jpa.repository.JpaRepository; import

com.psa.reservation_app_5.entities.Reservation; public interface

ReservationRepository extends JpaRepository<Reservation, Long> {

}

```

UserRepository

```
package com.psa.reservation_app_5.repository; import
org.springframework.data.jpa.repository.JpaRepository; import
com.psa.reservation_app_5.entities.User; public interface
UserRepository extends JpaRepository<User, Long> {
    User findByEmail(String emailid);
}
```

Application.properties

```
spring.datasource.url=jdbc:mysql://localhost:3306/flight
spring.datasource.username=root
spring.datasource.password=Milu99@@ spring.jpa.showsql=true
spring.jpa.hibernate.ddl-auto=update
spring.mvc.view.suffix=.jsp spring.mvc.view.prefix=/WEB-
INF/jsp/ server.servlet.context-path=/flights
```

UserController

```
package com.psa.reservation_app_5.controller; import
org.springframework.beans.factory.annotation.Autowired; import
org.springframework.stereotype.Controller; import
org.springframework.ui.ModelMap; import
org.springframework.web.bind.annotation.ModelAttribute; import
org.springframework.web.bind.annotation.RequestMapping; import
org.springframework.web.bind.annotation.RequestParam; import
com.psa.reservation_app_5.entities.User; import
com.psa.reservation_app_5.repository.UserRepository;

@Controller public class
UserController {
    @Autowired
    private UserRepository userRepo;

    //http://localhost:8080/flights/showLoginPage
```



```

@RequestMapping("/showLoginPage")

public String shoLoginPage() {

return "login/login";

}

@RequestMapping("/showReg")

public String showReg() {

return "login/showReg";

}

@RequestMapping("/saveReg")      public String

saveReg(@ModelAttribute("user") User user) {

userRepo.save(user);

return "login/login";

}

@RequestMapping("/verifyLogin")

public String verifyLogin(@RequestParam("emailId") String emailid,
@RequestParam("password") String password,

ModelMap m) {

User user = userRepo.findByEmail(emailid);

if (user != null) {

if (user.getEmail().equals(emailid) && user.getPassword().equals(password))

{

return "findFlights";

} else {

m.addAttribute("error", "Invalid username/password");

return "login/login";

}

} else {

m.addAttribute("error", "Invalid username/password");

return "login/login";

}

}

```

```
}  
}
```

src\main\webapp\index.html - Index.html

```
<!DOCTYPE html>  
<html>  
<head>  
<meta charset="ISO-8859-1">  
<title>Index</title>  
</head>  
<body>  
    <a href="showLoginPage" >Click here to login</a><br/>  
    <a href="showReg" >Click here to Create New  
Account</a>  
</body> </html> src\main\webapp\WEB-  
INF\jsp\login\login.jsp
```

```
<%@ page language="java" contentType="text/html;  
charset=ISO-8859-1" pageEncoding="ISO-88591"%>  
<!DOCTYPE html>  
<html>  
<head>  
<meta charset="ISO-8859-1">  
<title>Login</title>  
</head>  
<body>  
    <h3>Login here</h3>  
    <form action="verifyLogin" method="post">  
emailid<input type="text" name="emailId">  
password<input type="password" name="password">  
    <input type="submit" value="Login">  
    </form>  
    ${error }  
</body>  
</html>
```

src\main\webapp\WEB-INF\jsp\login\showReg.jsp

```

<%@ page language="java" contentType="text/html;
charset=ISO-8859-1"
    pageEncoding="ISO-8859-1"%>
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>New Registration</title>
</head>
<body>
<h2>Create new Registration</h2>
<form action="saveReg" method="post"> <pre>
first name<input type="text" name="firstName">
    last name<input type="text" name="LastName">
email<input type="email" name="email">
password<input type="password"
name="password">
    <input type="submit" value="save">
    </pre>
</form>

</body> </html>

```

src\main\webapp\WEB-INF\jsp\findFlights.jsp

```

<%@ page language="java" contentType="text/html;
charset=ISO-8859-1"
    pageEncoding="ISO-8859-1"%>
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>search flights</title>
</head>
<body>
    <h2>Find Flights</h2>
    <form action="findFlights" method="post">
from:<input type="text" name="from">
to:<input type="text" name="to">    Departure
Date<input type="text" name="dateofDeparture">

```

```

        <input type="submit" value="search">
    </form>
</body>
</html>

```

Controller- **FlightController**

```

package com.psa.reservation_app_5.controller; import
java.util.Date; import java.util.List; import
org.springframework.beans.factory.annotation.Autowired;
import org.springframework.format.annotation.DateTimeFormat;
import org.springframework.stereotype.Controller; import
org.springframework.ui.ModelMap; import
org.springframework.web.bind.annotation.RequestMapping;
import org.springframework.web.bind.annotation.RequestParam;
import com.psa.reservation_app_5.entities.Flight; import
com.psa.reservation_app_5.repository.FlightRepository;
@Controller public class
FlightController {

    @Autowired

    private FlightRepository flightRepo; @RequestMapping("/findFlights")    public String
findFlight(@RequestParam("from") String from,@RequestParam("to") String to,

    @RequestParam("dateofDeparture") @DateTimeFormat(pattern = "MM-ddyyyy") Date
dateofDeparture, ModelMap modelMap) {

        List<Flight> findFlights = flightRepo.findFlights(from, to, dateofDeparture);

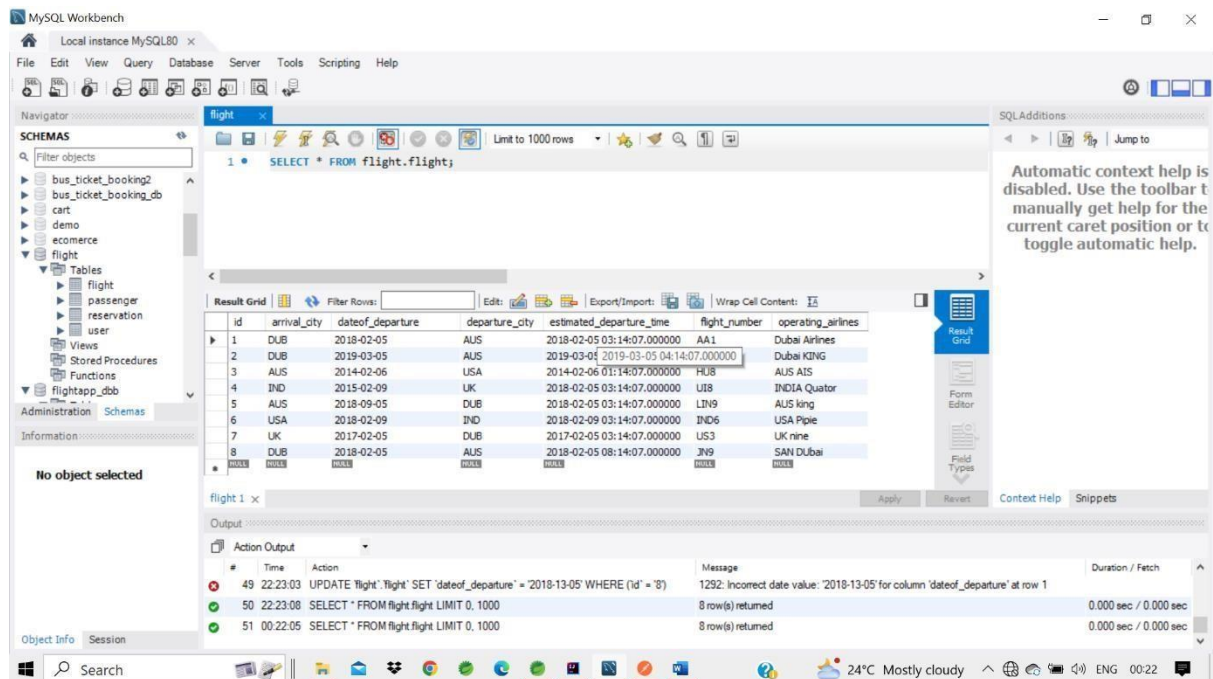
        modelMap.addAttribute("flights", findFlights);

        return "displayFlights";

    }
}

```

ADD Flight Details



src\main\webapp\WEB-INF\jsp\displayFlights.jsp

```

<%@ page language="java"
contentType="text/html; charset=ISO-8859-1"
pageEncoding="ISO-8859-1"%>
<%@ taglib prefix="c"
uri="http://java.sun.com/jsp/jstl/core" %>
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>Display Flights</title>
</head>
<body>
<h2>Flight Search Results</h2>

```

```

<table border="1">
<tr>
<tr>
<th>Airlines</th>
<th>Departure City</th>
<th>Arrival City</th>
<th>Departure Time</th>
<th>Select Flight</th>
</tr>

```

```

<c:forEach items="{{flights}}" var="findFlights">

    <tr>
        <td>{{findFlights.operatingAirlines}}</td>
        <td>{{findFlights.departureCity}}</td>
        <td>{{findFlights.arrivalCity}}</td>

        <td>{{findFlights.estimatedDepartureTime}}</td>
        <td><a
href="showCompleteReservation?flightId={{findFlights.getId
()}}">Select</a>
        </td>
    </tr>

</c:forEach>
</body>
</html>

```

After complete Serch the Link

<http://localhost:8080/flights/>

[Click here to login](#)

[Click here to Create New Account](#)

<http://localhost:8080/flights/showLoginPage> **Login**

here

emailid password

<http://localhost:8080/flights/verifyLogin>

Find Flights

from: to: Departure Date

Date formt(mm-dd-yyy)

<http://localhost:8080/flights/findFlights>

Flight Search Results

Airlines	Departure City	Arrival City	Departure Time	Select Flight
Dubai Airlines	AUS	DUB	2018-02-05 03:14:07.0	Select
SAN DUBai	AUS	DUB	2018-02-05 08:14:07.0	Select

Controller

ReservationController

```
package com.psa.reservation_app_5.controller; import
org.springframework.beans.factory.annotation.Autowired; import
org.springframework.stereotype.Controller; import
org.springframework.ui.ModelMap; import
org.springframework.web.bind.annotation.RequestMapping; import
org.springframework.web.bind.annotation.RequestParam; import
com.psa.reservation_app_5.dto.PassengerDto; import
com.psa.reservation_app_5.entities.Flight; import
com.psa.reservation_app_5.entities.Reservation; import
com.psa.reservation_app_5.repository.FlightRepository; import
com.psa.reservation_app_5.service.ReservationService;
@Controller public class
ReservationController {
    @Autowired
    private FlightRepository flightRepo;
    @Autowired
    private ReservationService reservationService;
    @RequestMapping("/showCompleteReservation") public String
completeReservation(@RequestParam("flightId")long flightId,ModelMap modelMap) {
    Flight flights = flightRepo.findById(flightId).get();
    modelMap.addAttribute("flights",flights);        return "showCompleteReservation";
```

```

    }

    @RequestMapping("/confirmRegistration")    public String
confirmRegistration(PassengerDto passengerDto,ModelMap modelmap) {

Reservation reservationId = reservationService.bookFlight(passengerDto);

modelmap.addAttribute("reservationId",reservationId.getId());

    return"confirmReservation";

}

}

```

showCompleteReservation.jsp

```

<%@ page language="java" contentType="text/html;
charset=ISO-8859-1"
    pageEncoding="ISO-8859-1"%>
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>Insert title here</title>
</head>
<body>
    <h2>Flight Details</h2>
    flightNumber: ${flights.flightNumber }
        <br> operatingAirlines: ${flights.operatingAirlines }
        <br> departureCity: ${flights.departureCity }
    <br> arrivalCity: ${flights.arrivalCity }    <br>
dateofDeparture: ${flights.dateofDeparture }    <br>
estimatedDepartureTime:
${flights.estimatedDepartureTime }
    <br>
    <h2>Passenger Details</h2>
    <form action="confirmRegistration" method="post">
        <pre>
            First Name<input type="text" name="firstName" />
last Name<input type="text" name="lastName" />        Middle
Name<input type="text" name="middleName" />
            Email<input type="text" name="email" />
Phone<input type="text" name="phone" />
            <input type="hidden" name="id" value="${flights.id}" />

```



```
<h2>Enter the card details</h2>
  Card Number<input type="text" /><br />
  CVV<input type="text" /><br />
  Expiry Date<input type="text" /><br />
  Amount<input type="text" /><br />
  <input type="Submit" value="proceed" />
</pre>
</form>
```

```
</body>
</html>
```

DTO- **PassengerDto**

```
package
com.psa.reservation_app_5.dto;
public class PassengerDto {  private
long id;  private String firstName;
private String lastName;  private
String middleName;  private String
email;  private String phone;
public long getId() {
  return id;
}
  public void setId(long id) {
    this.id = id;
  }
  public String getFirstName() {
    return firstName;
  }
  public void setFirstName(String firstName) {
    this.firstName = firstName;
  }
  public String getLastName() {
    return lastName;
  }
  public void setLastName(String lastName) {
    this.lastName = lastName;
  }
  public String getMiddleName() {      return
middleName;
  }
```

```

    public void setMiddleName(String middleName) {
        this.middleName = middleName;
    }
    public String getEmail() {    return
email;
    }
    public void setEmail(String email) {
        this.email = email;
    }
    public String getPhone() {    return
phone;
    }
    public void setPhone(String phone) {    this.phone =
phone;
    }
}

```

Service **ReservationService**

```

package com.psa.reservation_app_5.service; import
com.psa.reservation_app_5.dto.PassengerDto; import
com.psa.reservation_app_5.entities.Reservation; public interface
ReservationService {

    Reservation bookFlight(PassengerDto passengerDto);

}

```

ReserVationServiceImpl

```

package com.psa.reservation_app_5.service; import
org.springframework.beans.factory.annotation.Autowired; import
org.springframework.stereotype.Service; import
com.psa.reservation_app_5.dto.PassengerDto; import
com.psa.reservation_app_5.entities.Flight; import
com.psa.reservation_app_5.entities.Passenger; import
com.psa.reservation_app_5.entities.Reservation; import
com.psa.reservation_app_5.repository.FlightRepository; import
com.psa.reservation_app_5.repository.PassengerRepository; import
com.psa.reservation_app_5.repository.ReservationRepository;

```

```

import net.bytebuddy.dynamic.DynamicType.Builder.FieldDefinition.Optional;

@Service public class ReservationServiceImpl implements
ReservationService{

    @Autowired

    private PassengerRepository passengerRepo;

    @Autowired

    private FlightRepository flightRepo;

    @Autowired

    private ReservationRepository reservationRepo;


    @Override

    public Reservation bookFlight(PassengerDto passengerDto) {

        Passenger passenger =new Passenger();
        passenger.setFirstName(passengerDto.getFirstName());
        passenger.setLastName(passengerDto.getLastName());
        passenger.setMiddleName(passengerDto.getMiddleName());
        passenger.setEmail(passengerDto.getEmail());
        passenger.setPhone(passengerDto.getPhone());


        passengerRepo.save(passenger);


        long flightid = passengerDto.getId();

        Flight flight = flightRepo.findById(flightid).get();

        Reservation reservation = new Reservation();
        reservation.setFlight(flight);
        reservation.setPassenger(passenger);
        reservation.setCheckedIn(false);

```

```

reservation.setNumberOfBags(0);

reservationRepo.save(reservation);

        return reservation;
    }
}

```

confirmReservation.jsp

```

<%@ page language="java" contentType="text/html;
charset=ISO-8859-1"    pageEncoding="ISO-88591"%>
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>Insert title here</title>
</head>
<body>
<h3>Your ticket is Booked your ReservationId is
${reservationId }</h3>

</body>
</html>

```

Flight Search Results

Airlines	Departure City	Arrival City	Departure Time	Select Flight
Dubai Airlines	AUS	DUB	2018-02-05 03:14:07.0	Select
SAN DUBai	AUS	DUB	2018-02-05 08:14:07.0	Select

After Click on select button

FLight Details flightNumber: AA1 operatingAirlines:
Dubai Airlines departureCity: AUS arrivalCity:
DUB dateofDeparture: 2018-

02-05

estimatedDepartureTime: 2018-02-05 03:14:07.0

Passenger

Details

First Name

last

Name

Middle Name

Email

Phone

Enter the card details

Card Number

CVV

Expiry Date

Amount

proceed

After Fill up Details, click proced

Your ticket is Booked your ReservationId is 2

Now Generate Pdf

Add the dependency

`<dependency>`

`<groupId>com.itextpdf</groupId>`

`<artifactId>itextpdf</artifactId>`

`<version>5.5.8</version>`

`</dependency>`

Util

PdfGenerator

```

package com.psa.reservation_app_5.util;
import java.io.FileOutputStream; import
java.util.Date; import
com.itextpdf.text.Chunk; import
com.itextpdf.text.Document; import
com.itextpdf.text.DocumentException; import
com.itextpdf.text.Element; import
com.itextpdf.text.Font; import
com.itextpdf.text.Paragraph; import
com.itextpdf.text.Phrase; import
com.itextpdf.text.pdf.PdfPCell; import
com.itextpdf.text.pdf.PdfPTable; import
com.itextpdf.text.pdf.PdfWriter; public
class PdfGenerator {

    private static Font catFont = new
Font(Font.FontFamily.TIMES_ROMAN, 18,
Font.BOLD);
    private static Font smallBold = new
Font(Font.FontFamily.TIMES_ROMAN, 12,
        Font.BOLD);
    public void generatePDF(String filePath, String
name,
String emailId, String phone, String operatingAirlines,
Date departureDate, String departureCity, String
arrivalCity) {        try {
            Document document = new Document();
PdfWriter.getInstance(document, new
FileOutputStream(filePath));
document.open();
addMetaData(document);

addTitleAndTable(document,name,emailId,phone,operatingAirl
ines, departureDate.toString(),departureCity,arrivalCity);

            document.close();
        } catch (Exception e) {
            e.printStackTrace();
        }
    }
}

```

```

    // iText allows to add metadata to the PDF which can
    be viewed in your Adobe
    // Reader
    // under File -> Properties
    private static void addMetaData(Document document) {
        document.addTitle("My first PDF");
    document.addSubject("Using iText");
    document.addKeywords("Java, PDF, iText");
    document.addAuthor("Lars Vogel");
    document.addCreator("Lars Vogel");
    }
    private static void
addTitleAndTable(Document document, String name,
String emailId, String phone, String
operatingAirlines, String departureDate, String
departureCity, String arrivalCity) throws
DocumentException {
    Paragraph preface = new
Paragraph();

    preface.add(new Paragraph("Flight Booking
Details", catFont));

    preface.add(new Paragraph(
        "Report generated by: " + "Flight
Reservation Company " + new Date(), //$NON-NLS-1$
        //$NON-NLS-2$ //$NON-NLS-3$ smallBold));

    document.add(preface);
    document.add( Chunk.NEWLINE );
    document.add( Chunk.NEWLINE );

    PdfPTable table = new PdfPTable(2);
    table.setWidthPercentage(100); //
    t.setBorderColor(BaseColor.GRAY);
    // t.setPadding(4);
    // t.setSpacing(4);
    // t.setBorderWidth(1);

    PdfPCell c1 = new PdfPCell(new Phrase("Passenger
Detail"));
    c1.setHorizontalAlignment(Element.ALIGN_CENTER);
    c1.setColspan(2);
    table.addCell(c1);

```

```

        table.addCell("Passenger name");
table.addCell(name);            table.addCell("Email
Id");            table.addCell(emailId);
table.addCell("Phone Number");
table.addCell(phone);

        document.add(table);

        PdfPTable table1 = new PdfPTable(2);
table1.setWidthPercentage(100);        //
t.setBorderColor(BaseColor.GRAY);
        // t.setPadding(4);
        // t.setSpacing(4);
        // t.setBorderWidth(1);

        PdfPCell c2 = new PdfPCell(new Phrase("Flight
Detail"));
        c2.setHorizontalAlignment(Element.ALIGN_CENTER);
c2.setColspan(2);            table1.addCell(c2);

        table1.addCell("Operating Airlines");
table1.addCell(operatingAirlines);
table1.addCell("Departure Date");
table1.addCell(departureDate);
table1.addCell("Departure City");
table1.addCell(departureCity);

        table1.addCell("Arrival City");
table1.addCell(arrivalCity);

        document.add(table1);

        document.close();
    }
}

```

Create a folder in project name-ticket

Then Update Reservation controller

ReservationController


```

public class ReservationController {           private
static String filePath="D:\\4.8.1
version\\flight_reservation_app_5\\ticket\\booking";

public String confirmRegistration(PassengerDto
passengerDto,ModelMap modelmap) {
    Reservation reservation =
reservationService.bookFlight(passengerDto);
    PdfGenerator pdf = new PdfGenerator();

    pdf.generatePDF(filePath+reservation.getId()+".pdf",
reservation.getPassenger().getFirstName(),
reservation.getPassenger().getEmail(),
reservation.getPassenger().getPhone(),
reservation.getFlight().getOperatingAirlines(),
reservation.getFlight().getDateofDeparture(),
reservation.getFlight().getDepartureCity(),
reservation.getFlight().getArrivalCity());
    modelmap.addAttribute("reservationId",
reservation.getId());
    return"confirmReservation";
}
}

```

After when u Submit the data it will be generate A ticket with booking.pdf name and store in the Ticket Folder

Now Send the email –

Add the Dependency

```

<dependency>
    <groupId>org.springframework.boot</groupId>
    <artifactId>spring-boot-starter-mail</artifactId>
</dependency>

```

Add in the application.properties

```

spring.mail.host=smtp.gmail.com spring.mail.port=587
spring.mail.username=gyana6458@gmail.com
spring.mail.password=aiycdhlyinelqyyt
spring.mail.properties.mail.smtp.auth=true
spring.mail.properties.mail.smtp.starttls.enable=true

```

Util -

EmailUtil

```

package com.psa.reservation_app_5.util;

import java.io.File;
import javax.mail.MessagingException; import
javax.mail.internet.MimeMessage; import
org.springframework.beans.factory.annotation.Autowired;
import org.springframework.mail.javamail.JavaMailSender;
import
org.springframework.mail.javamail.MimeMessageHelper; import
org.springframework.stereotype.Component;

@Component
public class EmailUtil {

    @Autowired
    private JavaMailSender sender;

    public void sendItinerary(String toAddress, String
filePath) {
        System.out.println(filePath);

        MimeMessage message = sender.createMimeMessage();
        try {
            MimeMessageHelper messageHelper = new
MimeMessageHelper(message,true);
            messageHelper.setTo(toAddress);
            messageHelper.setSubject("Itinerary Of
Flight");
            messageHelper.setText("Please find the
attached");
            messageHelper.addAttachment("Itinerary", new
File(filePath) );
            sender.send(message);
        } catch (MessagingException e) {
            e.printStackTrace();
        }
    }
}

Then Update Reservation Controller
@Controller
public class ReservationController {

```

```

    @Autowired
    private EmailUtil emailUtil;
    @RequestMapping("/confirmRegistration")    public
    String confirmRegistration(PassengerDto
    passengerDto, ModelMap modelmap) {
        Reservation reservation =
    reservationService.bookFlight(passengerDto);
        PdfGenerator pdf = new PdfGenerator();

        pdf.generatePDF(filePath+reservation.getId()+".pdf",
    reservation.getPassenger().getFirstName(),
    reservation.getPassenger().getEmail(),
    reservation.getPassenger().getPhone(),
    reservation.getFlight().getOperatingAirlines(),
    reservation.getFlight().getDateofDeparture(),
    reservation.getFlight().getDepartureCity(),
    reservation.getFlight().getArrivalCity());
        modelmap.addAttribute("reservationId",
    reservation.getId());
        EmailUtil util = new EmailUtil();
        String attachment =
    filePath+reservation.getId()+".pdf";
        emailUtil.sendItinerary(passengerDto.getEmail(),
    attachment);        return "confirmReservation";
    }
}

```

Now after save the deatil it will send to a confirmation email

Fetch All the Data

Controller

ReservationRestController

```

package com.psa.reservation_app_5.controller; import
org.springframework.beans.factory.annotation.Autowired;
import org.springframework.web.bind.annotation.GetMapping;
import
org.springframework.web.bind.annotation.PathVariable; import
org.springframework.web.bind.annotation.RestController;

import com.psa.reservation_app_5.entities.Reservation;
import

```

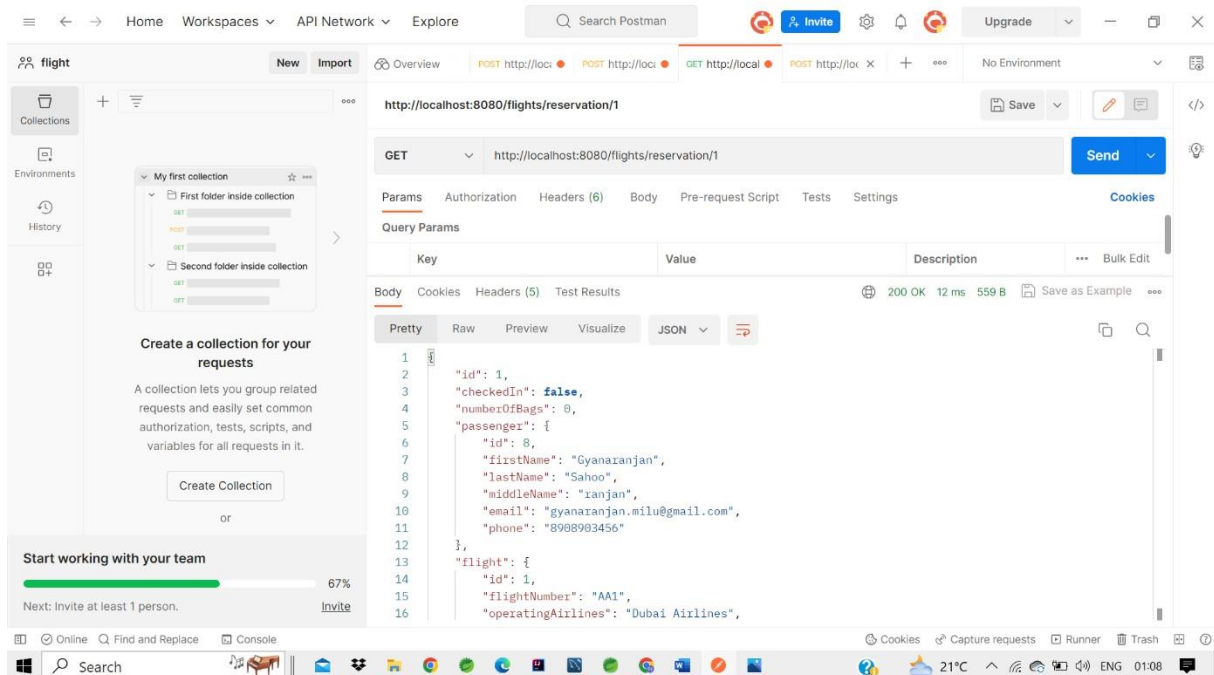
```
com.psa.reservation_app_5.repository.ReservationRepository  
;
```

```
@RestController
```

```
public class ReservationRestController {  
    @Autowired  
    private ReservationRepository reservationRepo;  
    //http://localhost:8080/flights/reservation/1  
    @GetMapping("/reservation/{id}")  
    public Reservation findReservation(@PathVariable("id")  
Long id) {  
        Reservation reservation =  
reservationRepo.findById(id).get();  
        return reservation;  
    }  
}
```

After Searching this It will give me All the details based on Id ,

You can also use Postman



Then add this it will update ur Checked in and no. of bags

```
//http://localhost:8080/flights/reservation
```

```
@RequestMapping("/reservation")
```

```
public Reservation updateReservation(@RequestBody
```

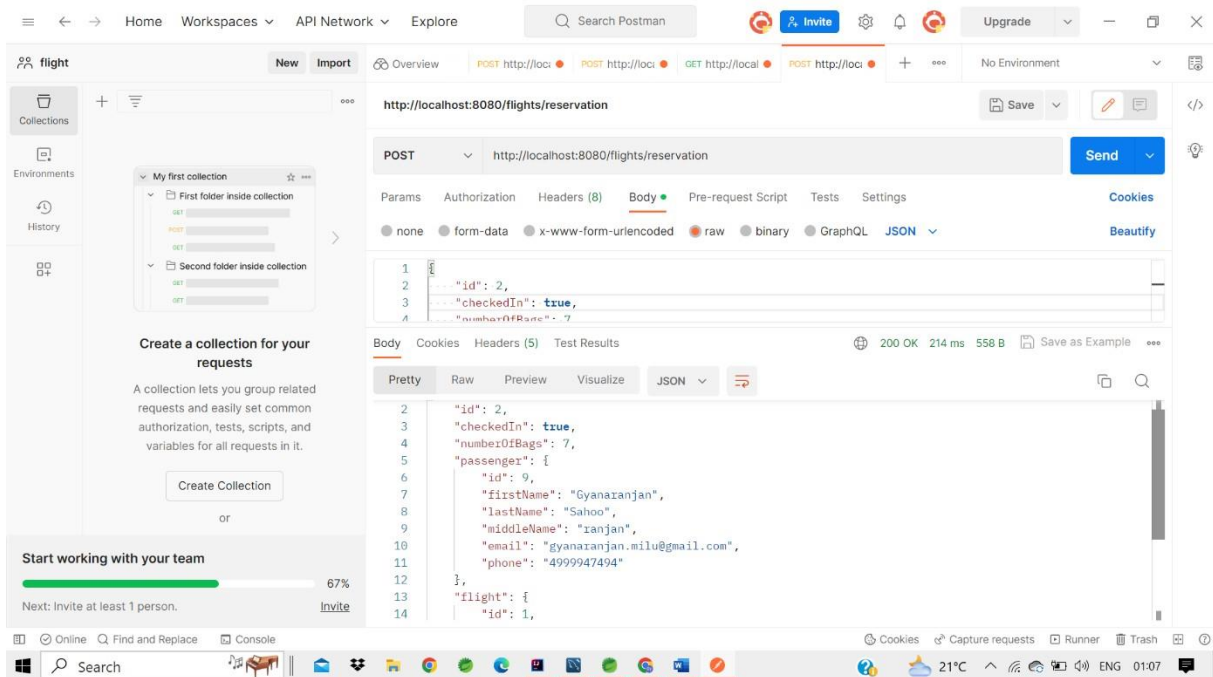
```

ReservationUpdateRequest request) {
    Reservation reservation =
reservationRepo.findById(request.getId()).get();
    reservation.setCheckedIn(request.isCheckedIn());

    reservation.setNumberOfBags(request.getNumberOfBags());
;

    return reservationRepo.save(reservation);
}

```



Now Do Microservices Implementation and create a new package only add springWeb dependency

Add the Tomcat dependency

```

<dependency>
    <groupId>org.apache.tomcat.embed</groupId>
    <artifactId>tomcat-embed-jasper</artifactId>
    <scope>provided</scope>
</dependency>

```

Application.properties

```

spring.mvc.view.prefix=/WEB-INF/jsp/
spring.mvc.view.suffix=.jsp

```

```

server.servlet.context-path=/checkin server.port=9090

```

Controller **ReservationController** package
com.checkedin5.controller;

import org.springframework.stereotype.Controller; **import**
org.springframework.web.bind.annotation.RequestMapping;

@Controller

```
public class ReservationController {  
    //http://localhost:9090/checkin/.com  
    @RequestMapping("/.com")    public  
String show() {  
    return"startCheckedIn";  
    }  
    @RequestMapping("/procedCheckedIn")  
    public String find() {  
        return"displayreservation";  
    }  
}
```

startCheckedIn.jsp

```
<%@ page language="java" contentType="text/html;  
charset=ISO-8859-1"    pageEncoding="ISO-8859-  
1"%>  
<!DOCTYPE html>  
<html>  
<head>  
<meta charset="ISO-8859-1">  
<title>Start checked in</title>  
</head>  
<body>  
<h2>Start checked in</h2>  
<form action="procedCheckedIn" method="post">  
    Enter your reservation Id <input type="text"  
name="id"/>  
    <input type="submit" value="start">  
</form>  
</body>  
</html>
```

After Serch the link Start

checked in

Enter your reservation

Id

start

Then Create

Dto - Reservation

```
package com.checkedin.dto;
public class Reservation{
    private Long id;           private
    boolean checkedIn;         private
    int numberOfBags;          private
    Passenger passenger;       private
    Flight flight;
    public Long getId() {
        return id;
    }
    public void setId(Long id) {
        this.id = id;
    }
    public boolean isCheckedIn() {
        return checkedIn;
    }
    public void setCheckedIn(boolean checkedIn) {
        this.checkedIn = checkedIn;
    }
    public int getNumberOfBags() {
        return numberOfBags;
    }
    public void setNumberOfBags(int numberOfBags) {
        this.numberOfBags = numberOfBags;
    }
    public Passenger getPassenger() {
        return passenger;
    }
    public void setPassenger(Passenger passenger) {
        this.passenger = passenger;
    }
}
```

```

        public Flight getFlight() {
            return flight;
        }
        public void setFlight(Flight flight) {
            this.flight = flight;
        }
    }
}

```

Passenger

```

package com.checkedin5.dto;
public class Passenger {
    private Long id;
    private String firstName;
    private String lastName;
    private String middleName;
    private String email;
    private String phone;
    public Long getId() {
        return id;
    }
    public void setId(Long id) {
        this.id = id;
    }
    public String getFirstName() {
        return firstName;
    }
    public void setFirstName(String firstName) {
        this.firstName = firstName;
    }
    public String getLastName() {
        return lastName;
    }
    public void setLastName(String lastName) {
        this.lastName = lastName;
    }
    public String getMiddleName() {
        return middleName;
    }
    public void setMiddleName(String middleName) {
        this.middleName = middleName;
    }
}

```



```

    }
    public String getEmail() {
        return email;
    }
    public void setEmail(String email) {
        this.email = email;
    }
    public String getPhone() {
        return phone;
    }
    public void setPhone(String phone) {
        this.phone = phone;
    }
}

```

Flight

```

package com.checkedin5.dto;
import
java.sql.Timestamp; import
java.util.Date;
public class Flight
{
    private Long id;          private String
flightNumber;              private String
operatingAirlines;         private String
departureCity;             private String arrivalCity;
    private Date dateOfDeparture;
private Timestamp estimatedDepartureTime;
    public Long getId() {
        return id;
    }
    public void setId(Long id) {
        this.id = id;
    }
    public String getFlightNumber() {
        return flightNumber;
    }
    public void setFlightNumber(String flightNumber)

```

```

{
    this.flightNumber = flightNumber;
}
public String getOperatingAirlines() {
    return operatingAirlines;
}
public void setOperatingAirlines(String
operatingAirlines) {
    this.operatingAirlines = operatingAirlines;
}
public String getDepartureCity() {
    return departureCity;
}
public void setDepartureCity(String
departureCity) {
    this.departureCity = departureCity;
}
public String getArrivalCity() {
    return arrivalCity;
}
public void setArrivalCity(String arrivalCity) {
    this.arrivalCity = arrivalCity;
}
public Date getDateOfDeparture() {
    return dateOfDeparture;
}
public void setDateOfDeparture(Date
dateOfDeparture) {
    this.dateOfDeparture = dateOfDeparture;
}
public Timestamp getEstimatedDepartureTime() {
    return estimatedDepartureTime;
}
public void setEstimatedDepartureTime(Timestamp
estimatedDepartureTime) {
    this.estimatedDepartureTime =
estimatedDepartureTime;
}
}

```

Then Create

Service **ReservationRestfullClientService**

```
package com.checkedin5.service;
import
com.checkedin5.dto.Reservation;
```

```
public interface ReservationRestfullClientService {
    public Reservation findReservtaion(long id);
}
```

ReservationRestfullClientServiceImpl

```
package com.checkedin5.service;
import org.springframework.stereotype.Service;
import org.springframework.web.client.RestTemplate;
import com.checkedin5.dto.Reservation;
@Service
public class ReservationRestfullClientServiceImpl implements
ReservationRestfullClientService{

    @Override
    public Reservation findReservtaion(long id) {
        RestTemplate restTemplate= new RestTemplate();
        Reservation reservation =
restTemplate.getForObject("http://localhost:8080/flights/r
eservation/"+id, Reservation.class);        return
reservation;
    }
}
```

Controller **ReservationController**

```
package com.checkedin5.controller;
import
org.springframework.beans.factory.annotation.Autowired;
import org.springframework.stereotype.Controller;
import org.springframework.ui.ModelMap; import
org.springframework.web.bind.annotation.RequestMapping;
import
org.springframework.web.bind.annotation.RequestParam;
import com.checkedin5.dto.Reservation; import
com.checkedin5.service.ReservationRestfullClientService;
@Controller
```

```

public class ReservationController {
    @Autowired
    private ReservationRestfullClientService rs;
    //http://localhost:9090/checkin/.com
    @RequestMapping("/.com")
    public String show() {
        return "startCheckedIn";
    }

    @RequestMapping("/procedCheckedIn")
    public String find(@RequestParam("id") long
id, ModelMap modelmap) {
        Reservation findReservtaion =
rs.findReservtaion(id);
        modelmap.addAttribute("r", findReservtaion);
        return "displayreservtaion";
    }
}

```

D:\4.8.1 version\checkedin-5\src\main\webapp\WEBINF\jsp\displayreservtaion.jsp

```

<%@ page language="java" contentType="text/html;
charset=ISO-8859-1"
    pageEncoding="ISO-8859-1"%>
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>Insert title here</title>
</head>
<body>
    <h3>Passenger Detail details</h3>
    firstName:${r.getPassenger().firstName }
    <br> lastName:${r.getPassenger().lastName }
    <br> middleName:${r.getPassenger().middleName }
    <br> email:${r.getPassenger().email }
    <br> phone:${r.getPassenger().phone }
    <br>
    <h3>Flight Details</h3>
    flightNumber:${r.getFlight().flightNumber }

```

```

    <br>
operatingAirlines:${r.getFlight().operatingAirlines }
    <br> departureCity:${r.getFlight().departureCity }
    <br> arrivalCity:${r.getFlight().arrivalCity }
    <br> dateOfDeparture:${r.getFlight().dateOfDeparture }
    <br>
estimatedDepartureTime:${r.getFlight().estimatedDepartureT
ime }
    <br>
<h2>Update No of Bags&Status</h2>
<form action="proced" method="post">
    <pre>
        ReservationId<input type="text" name="id"
value="${r.id }">
        NumberOf Bags<input type="text"
name="numberOfBags">
        <input type="submit" value="proced">
    </pre>
</form>
</body>
</html>

```

Passenger Detail details

firstName:Gyanaranjan
 lastName:Sahoo
 middleName:ranjan
 email:gyanaranjan.milu@gmail.com
 phone:4999947494

Flight Details

flightNumber:AA1
 operatingAirlines:Dubai Airlines
 departureCity:AUS
 arrivalCity:DUB
 dateOfDeparture:
 estimatedDepartureTime:2018-02-05 03:14:07.0

Update No of Bags&Status

ReservationId

NumberOf Bags

Dto ReservationUpdateRequest

```
package com.checkedin5.dto;

public class ReservationUpdateRequest {
    private long id;    private
    boolean checkedIn;    private
    int numberOfBags;    public long
    getId() {
        return id;
    }
    public void setId(long id) {
        this.id = id;
    }
    public boolean isCheckedIn() {
        return checkedIn;
    }
    public void setCheckedIn(boolean checkedIn) {
        this.checkedIn = checkedIn;
    }
    public int getNumberOfBags() {
        return numberOfBags;
    }
    public void setNumberOfBags(int numberOfBags) {
        this.numberOfBags = numberOfBags;
    }
}
```

Service ReservationRestfullClientService

```
package com.checkedin5.service;

import com.checkedin5.dto.Reservation;
import com.checkedin5.dto.ReservationUpdateRequest;

public interface ReservationRestfullClientService {
    public Reservation findReservtaion(long id);
}
```

```

        public Reservation updateReservation(ReservationUpdateRequest request);
    }

```

ReservationRestfullClientServiceImpl

```

package com.checkedin5.service;

import org.springframework.stereotype.Service;
import org.springframework.web.client.RestTemplate;

import com.checkedin5.dto.Reservation;
import com.checkedin5.dto.ReservationUpdateRequest;
@Service
public class ReservationRestfullClientServiceImpl implements ReservationRestfullClientService{

    @Override
    public Reservation findReservtaion(long id) {
        RestTemplate restTemplate= new RestTemplate();
        Reservation reservation =
restTemplate.getForObject("http://localhost:8080/flights/reservation/"+id, Reservation.class);
        return reservation;
    }

    @Override
    public Reservation updateReservation(ReservationUpdateRequest request) {
        RestTemplate restTemplate = new RestTemplate();
        Reservation reservation =
restTemplate.postForObject("http://localhost:8080/flights/reservation", request, Reservation.class);
        return reservation;
    }
}

```

ReservationController

```

package com.checkedin5.controller;
import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.stereotype.Controller;
import org.springframework.ui.ModelMap;
import org.springframework.web.bind.annotation.RequestMapping;
import org.springframework.web.bind.annotation.RequestParam;

import com.checkedin5.dto.Reservation;
import com.checkedin5.dto.ReservationUpdateRequest;
import com.checkedin5.service.ReservationRestfullClientService;

@Controller
public class ReservationController {

```

```

@Autowired
private ReservationRestfullClientService rs;
//http://localhost:9090/checkin/.com
@RequestMapping("/.com")
public String show() {
    return "startCheckedIn";
}

@RequestMapping("/procedCheckedIn")
public String find(@RequestParam("id") long id, ModelMap modelmap) {
    Reservation findReservtaion = rs.findReservtaion(id);
    modelmap.addAttribute("r", findReservtaion);
    return "displayreservtaion";
}

@RequestMapping("/proced")
public String procedCheckin(@RequestParam("id") Long
id, @RequestParam("numberOfBags") int numberOfBags) {
    ReservationUpdateRequest request = new ReservationUpdateRequest();
    request.setid(id);
    request.setNumberOfBags(numberOfBags);
    request.setCheckedIn(true);
    rs.updateReservation(request);
    return "confirmReservation";
}
}

```

confirmReservation.Jsp

```

<%@ page language="java" contentType="text/html;
charset=ISO-8859-1"
    pageEncoding="ISO-8859-1"%>
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>Insert title here</title>
</head>
<body>
<h2>Boarding is completed</h2>

</body>
</html>

```

Boarding is completed