**Cab Fare Repository**

package com.repository;

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

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

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

import org.springframework.stereotype.Repository;

import com.bean.CabFare;

@Repository

public interface CabFareRepository extends JpaRepository<CabFare, Integer> {

@Query("select cf.fare from CabFare cf where cf.source = :source and cf.destination = :destination")

public float findFare(@Param("source") String source, @Param("destination") String destination);

@Query("select cf.fare from CabFare cf where cf.source = :source and cf.destination = :destination")

public int findSourceAndDestination(@Param("source") String source, @Param("destination") String destination);

}

**Cab Fare Controller**

**package com.controller;**

**import org.springframework.beans.factory.annotation.Autowired;**

**import org.springframework.http.MediaType;**

**import org.springframework.web.bind.annotation.GetMapping;**

**import org.springframework.web.bind.annotation.PathVariable;**

**import org.springframework.web.bind.annotation.PostMapping;**

**import org.springframework.web.bind.annotation.RequestBody;**

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

**import org.springframework.web.bind.annotation.RestController;**

**import com.bean.CabFare;**

**import com.service.CabFareService;**

**@RestController**

**@RequestMapping("cabfare") //http://localhost:8282/cabfare/\***

**public class CabFareController {**

**@Autowired**

**CabFareService cabFareService;**

**// http://localhost:8282/cabfare/create**

**@PostMapping(value = "create", consumes = MediaType.APPLICATION\_JSON\_VALUE)**

**public String storeCabFareInfo(@RequestBody CabFare cabFare) {**

**return cabFareService.storeCabFareInfo(cabFare);**

**}**

**// http://localhost:8282/cabfare/findFare/A/B**

**@GetMapping(value = "findFare/{source}/{destination}")**

**public float findCabFare(@PathVariable String source, @PathVariable String destination) {**

**return cabFareService.findFare(source, destination);**

**}**

**}**

**Cab Fare Service**

**package com.service;**

**import org.springframework.beans.factory.annotation.Autowired;**

**import org.springframework.stereotype.Service;**

**import com.bean.CabFare;**

**import com.repository.CabFareRepository;**

**@Service**

**public class CabFareService {**

**@Autowired**

**CabFareRepository cabFareRepository;**

**public String storeCabFareInfo(CabFare cb) {**

**try {**

**cabFareRepository.findSourceAndDestination(cb.getSource(), cb.getDestination());**

**return "Information Already Present";**

**} catch(Exception e) {**

**System.err.println(e);**

**cabFareRepository.save(cb);**

**return "Cab Fare Information Stored";**

**}**

**}**

**public float findFare(String source, String destination) {**

**try {**

**return cabFareRepository.findFare(source, destination);**

**} catch (Exception e) {**

**System.err.println(e);**

**return -1;**

**}**

**}**

**}**

**Booking Info Repository**

**package com.repository;**

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

**import org.springframework.stereotype.Repository;**

**import com.bean.BookingInfo;**

**@Repository**

**public interface BookingInfoRepository extends JpaRepository<BookingInfo, Integer> {**

**}**

**Booking Info Controller**

package com.controller;

import org.springframework.beans.factory.annotation.Autowired;

import org.springframework.stereotype.Controller;

import org.springframework.ui.Model;

import org.springframework.web.bind.annotation.GetMapping;

import org.springframework.web.bind.annotation.PostMapping;

import com.bean.BookingInfo;

import com.service.BookingInfoService;

@Controller // view must be thymeleaf

public class BookingInfoController {

@Autowired

BookingInfoService bookingInfoService;

// http://localhost:8181

@GetMapping(value = "/")

public String bookingLandingPage(Model mm, BookingInfo bi) {

mm.addAttribute("booking", bi);

return "booking-cab"; // need page with name as booking-cab

}

@PostMapping(value = "/bookCab")

public String bookCab(Model mm, BookingInfo bi) {

System.out.println(bi); // call toString method

// call service method provide logic to book the cab based upon cab\_fare micro service

mm.addAttribute("msg", bookingInfoService.bookCab(bi));

mm.addAttribute("booking", bi);

return "booking-cab"; // need page with name as booking-cab

}

}

**Booking Info Service**

package com.service;

import org.springframework.beans.factory.annotation.Autowired;

import org.springframework.stereotype.Service;

import org.springframework.web.client.RestTemplate;

import com.bean.BookingInfo;

import com.repository.BookingInfoRepository;

@Service

public class BookingInfoService {

@Autowired

BookingInfoRepository bookingInfoRepository;

@Autowired

RestTemplate restTemplate;

public String bookCab(BookingInfo bi) {

float fare = restTemplate.getForObject("http://cab-fare-micro-service-app/cabfare/findFare/" +

bi.getSource() + "/" + bi.getDestination(), float.class);

if(fare==-1) {

return "Failed to obtain fare info";

} else {

float finalFare;

switch (bi.getCabType()) {

case "Luxury":

finalFare = fare \* 1.5f;

break;

case "Airport":

finalFare = fare \* 1.3f;

break;

case "Compact":

default:

finalFare = fare;

break;

}

bi.setPrice(finalFare);

bookingInfoRepository.save(bi);

return "Cab Booked Successfully: " + bi.getCabType() + " | Fare: $" + finalFare;

}

}

}