Create a REST service application to display list of all profiles and display profile for given id.

**Step 1 -> create producer application**

import org.springframework.boot.SpringApplication;

import org.springframework.boot.autoconfigure.SpringBootApplication;

@SpringBootApplication

public class ProfileMicroserviceServerApplication {

public static void main(String[] args) {

SpringApplication.run(ProfileMicroserviceServerApplication.class, args);

}

}

import java.util.List;

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

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

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

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

@RestController

public class ProfileController {

@Autowired

ProfileRepository profileRepository;

@RequestMapping("/profiles")

public Profile[] all() {

List<Profile> profiles = profileRepository.getAllProfiles();

return profiles.toArray(new Profile[profiles.size()]);

}

@RequestMapping("/profiles/{id}")

public Profile byId(@PathVariable("id") String userId) {

Profile profile = profileRepository.getProfile(userId);

return profile;

}

}

package com.cgi;

import java.io.Serializable;

public class Profile implements Serializable {

private static final long serialVersionUID = 1L;

private String userId;

private String name;

public String getUserId() {

return userId;

}

public void setUserId(String userId) {

this.userId = userId;

}

public String getName() {

return name;

}

public void setName(String name) {

this.name = name;

}

@Override

public String toString() {

return "Profile [userId=" + userId + ", name=" + name + "]";

}

public Profile() {

// TODO Auto-generated constructor stub

}

public Profile(String userId, String name) {

super();

this.userId = userId;

this.name = name;

}

}

import java.util.List;

public interface ProfileRepository {

List<Profile> getAllProfiles();

Profile getProfile(String userId);

}

import java.util.ArrayList;

import java.util.HashMap;

import java.util.List;

import java.util.Map;

import org.springframework.stereotype.Repository;

@Repository

public class StubProfileRepository implements ProfileRepository {

private Map<String, Profile> profileData = new HashMap<String, Profile>();

public StubProfileRepository() {

Profile profile = new Profile("1000", "Ajit");

profileData.put("1000", profile);

profile = new Profile("2000", "Amay");

profileData.put("2000", profile);

profile = new Profile("3000", "Dinesh");

profileData.put("3000", profile);

}

@Override

public List<Profile> getAllProfiles() {

return new ArrayList<Profile>(profileData.values());

}

@Override

public Profile getProfile(String userId) {

return profileData.get(userId);

}

}

**Step-> create consumer application**

import java.io.Serializable;

public class Profile implements Serializable{

private static final long serialVersionUID = 1L;

private String userId;

private String name;

public String getUserId() {

return userId;

}

public void setUserId(String userId) {

this.userId = userId;

}

public String getName() {

return name;

}

public void setName(String name) {

this.name = name;

}

@Override

public String toString() {

return "Profile [userId=" + userId + ", name=" + name + "]";

}

public Profile() {

}

public Profile(String userId, String name) {

super();

this.userId = userId;

this.name = name;

}

}

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

import org.springframework.stereotype.Controller;

import org.springframework.ui.Model;

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

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

@Controller

public class ProfileController {

@Autowired

ProfileRepository profileRepository;

@RequestMapping("/")

public String home(){

return "index";

}

@RequestMapping("/userProfiles")

public String profileList(Model model) {

model.addAttribute("profiles", profileRepository.getAllProfiles());

return "userProfiles";

}

@RequestMapping("/userDetails")

public String profileDetails(@RequestParam("id") String userId, Model model) {

model.addAttribute("profile", profileRepository.getProfile(userId));

return "userDetails";

}

}

import org.springframework.boot.SpringApplication;

import org.springframework.boot.autoconfigure.SpringBootApplication;

import org.springframework.cloud.client.discovery.EnableDiscoveryClient;

import org.springframework.cloud.client.loadbalancer.LoadBalanced;

import org.springframework.context.annotation.Bean;

import org.springframework.web.client.RestTemplate;

@SpringBootApplication

public class ProfileMicroserviceClientApplication {

public static final String PROFILES\_SERVICE\_URL = "................";

public static void main(String[] args) {

SpringApplication.run(ProfileMicroserviceClientApplication.class, args);

}

@Bean

@LoadBalanced

public RestTemplate restTemplate() {

return new RestTemplate();

}

@Bean

public ProfileRepository profileRepository(){

return new RemoteProfileRepository(PROFILES\_SERVICE\_URL);

}

}

import java.util.List;

public interface ProfileRepository {

List<Profile> getAllProfiles();

Profile getProfile(String userId);

}

import java.util.Arrays;

import java.util.List;

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

import org.springframework.web.client.RestTemplate;

public class RemoteProfileRepository implements ProfileRepository {

@Autowired

protected RestTemplate restTemplate;

protected String serviceUrl;

public RemoteProfileRepository(String serviceUrl) {

this.serviceUrl = serviceUrl.startsWith("http") ? serviceUrl

: "http://" + serviceUrl;

}

@Override

public List<Profile> getAllProfiles() {

Profile[] profiles = restTemplate.getForObject(serviceUrl+"/profiles", Profile[].class);

return Arrays.asList(profiles);

}

@Override

public Profile getProfile(String userId) {

return restTemplate.getForObject(serviceUrl + "/profiles/{id}",

Profile.class, userId);

}

}