

Lab 3.1

In this lab we will use Ribbon to achieve service to service communication between Eureka registered services. Our Service that retrieves mountains needs to call another service to get the first ascent for that mountain.

- Stop service 01
- In Service01 Project
- Give the class Mountain a new property with a Getter and Setter
 - `private String firstAscent;`
- Edit the application.yaml by copying the contents of notes.txt found in that project
- Note how the ribbon configuration has a label “service-two” maps to a service “service02”

service-two:

ribbon:

DeploymentContextBasedVipAddresses: service02

NIWSServerListClassName: com.netflix.niws.loadbalancer.DiscoveryEnabledNIWSServerList

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In the class Service01

Annotate the class with `@RibbonClient(name = "service-two")`

Add a bean definition for a load balanced `RestTemplate`

```
@Bean
@LoadBalanced
RestTemplate restTemplate(){
    return new RestTemplate();
}
```

Amend the method `get(Long id)` to use the template make a call to a service "service-two"

```
public Mountain get(@PathVariable("id") Long id) {
    Mountain c = dao.get(id);
    String url = "http://service-two/{id}";
    String str = this.restTemplate().getForObject(url, String.class, id);
    c.setFirstAscent(str);
    return c;
}
```

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In your eclipse Ide open a second project



File->Open Projects from File System i.e.
developer/Desktop/Studentwork/setup/Lab03.1/Student_Service02



Annotate the class com.student.Service02 replace `//<TODO>` with `@EnableDiscoveryClient`



In src/main/resources/application.yaml



replace the `<TODO>`'s with;
spring:application:name: service02
eureka:client:serviceUrl:defaultZone: http://localhost:1111/eureka/

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With your Eureka Service running

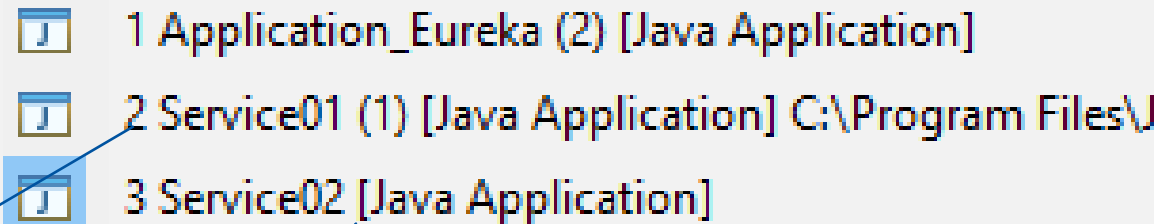
Launch service01

Launch service02

Your have THREE projects running

Confirm registration

Console for each service in eclipse



1 Application_Eureka (2) [Java Application]
2 Service01 (1) [Java Application] C:\Program Files\J
3 Service02 [Java Application]

Registered instance
SERVICE01/host.docker.internal:service01:8082 with status
UP

DiscoveryClient_SERVICE02/host.docker.internal:service02:
8085 - registration status: 204

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Verify our services in the Eureka console

DS Replicas

Instances currently registered with Eureka

Application	AMIs	Availability Zones	Status
SERVICE01	n/a (1)	(1)	UP (1) - host.docker.internal:8082
SERVICE02	n/a (1)	(1)	UP (1) - host.docker.internal:8085

Click on your service01 url

Change <http://hostname:8082/info> to <http://hostname:8082/1>

Note the first ascent field filled in in the json, that came from Service02

```
// http://192.168.1.141:8082/1

{
  "id": 1,
  "name": "Annapurna I",
  "range": "Annapurna Himalaya",
  "country": "Nepal",
  "firstAscent": "1950"
}
```