

UM-D CIS-578 Challenge 2

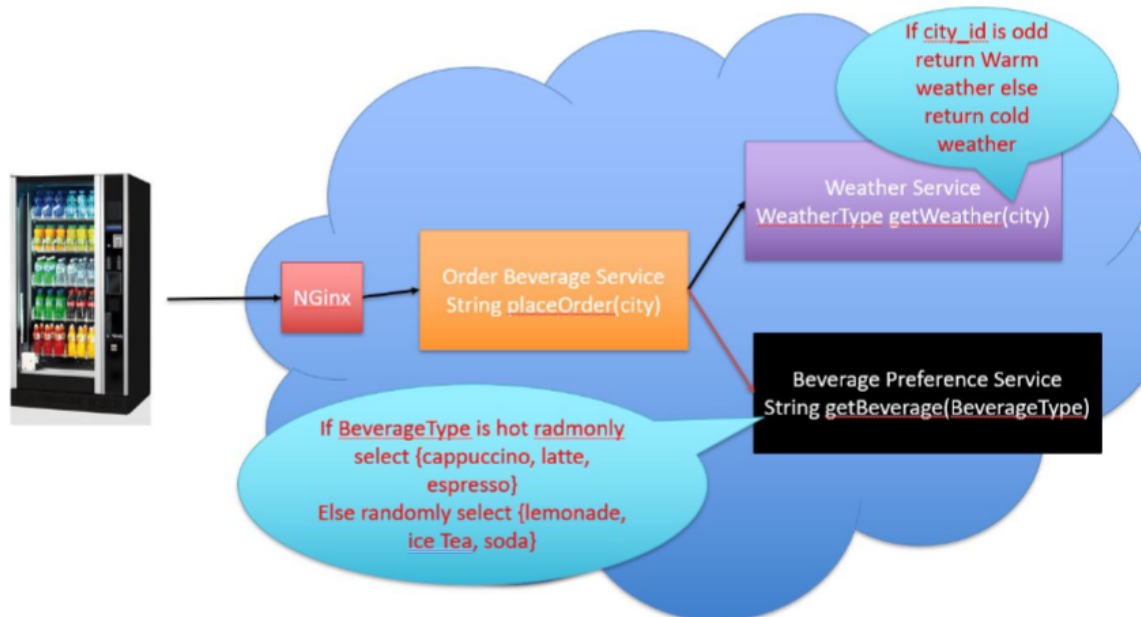
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Overview

This challenge implements different services through Apache Thrift. The services are: order beverage, beverage preference, and weather. The client machine interfacing with the user/customer is a “vending machine” abstraction written in C++. An nginx reverse proxy handles communication between the vending machine and the order beverage service. From here, an RPC determines the weather type based on the unique city ID. The callee in this case is on the weather service server. Then, also in order beverage, another RPC is invoked to the beverage preference service. The weather type is used to randomly select a type of beverage, based on whether the weather is hot or cold.

This challenge required creating a brand new service (beverage preference service) following the model. Then, the `getBeverage` function was implemented, and the `placeOrder` function updated to make use of this new service and function.

The project was completed on a single node ubuntu instance hosted on cloudlabs.



Github Repo

[Jormogundr/vending-machine](https://github.com/Jormogundr/vending-machine)

Docker Image

[nathan93/vending-machine-microservices](https://hub.docker.com/r/nathan93/vending-machine-microservices)

Output

See the output.txt in either the github repo or the attached tar.gz

Screenshot

```
pi@pi3-b:~/vending-machine/demo/scripts$ sudo docker-compose up
Starting demo_nginx-thrift_1 ... done
Recreating demo_order-beverage-service_1 ... done
Recreating demo_weather-service_1 ... done
Recreating demo_beverage-preference-service_1 ... done
Attaching to demo_nginx-thrift_1, demo_weather-service_1, demo_order-beverage-service_1, demo_beverage-preference-service_1
demo_beverage-preference-service_1 | Starting the beverage preference service server ...
demo_order-beverage-service_1 | Starting the order-beverage server ...
demo_weather-service_1 | Starting the weather server ...
[+]

pi@pi3-b:~/vending-machine/demo/scripts$ sudo docker ps -a
CONTAINER ID        IMAGE                                     COMMAND                  CREATED             STATUS              PORTS              NAMES
11cd05a93a80       nathan93/vending-machine-microservices:latest   "OrderBeverageService"   About a minute ago   Up About a minute   0.0.0.0:8080->8080/tcp, :::8080->8080/tcp   demo_order-beverage-service_1
a0017e631271       nathan93/vending-machine-microservices:latest   "BeveragePreferenceS..." About a minute ago   Up About a minute   0.0.0.0:8080->8080/tcp, :::8080->8080/tcp   demo_beverage-preference-service_1
a44d4131a343       nathan93/vending-machine-microservices:latest   "WeatherService"         About a minute ago   Up About a minute   0.0.0.0:8080->8080/tcp, :::8080->8080/tcp   demo_weather-service_1
1c3cc3d427bc       yob397/openresty-thrift:xenial              "/usr/local/openrest..." 6 days ago          Up About a minute   0.0.0.0:8080->8080/tcp, :::8080->8080/tcp   demo_nginx-thrift_1
```