LabChat

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Cloud Computing WS 18/19

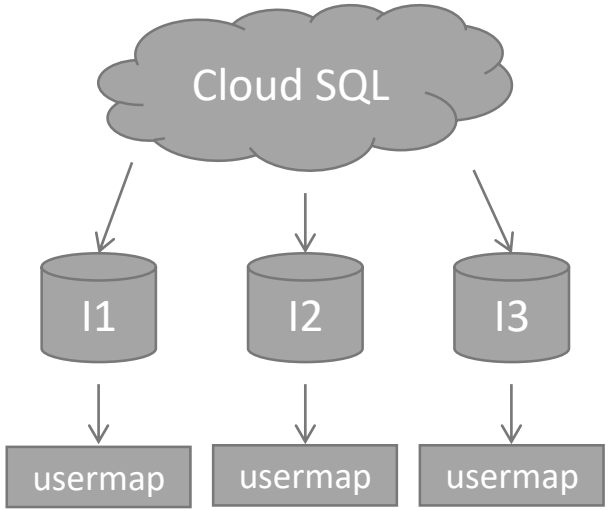
Agenda

- Identified issues
- Solution
- Problems
- Lesson-learnt

- Live Demo

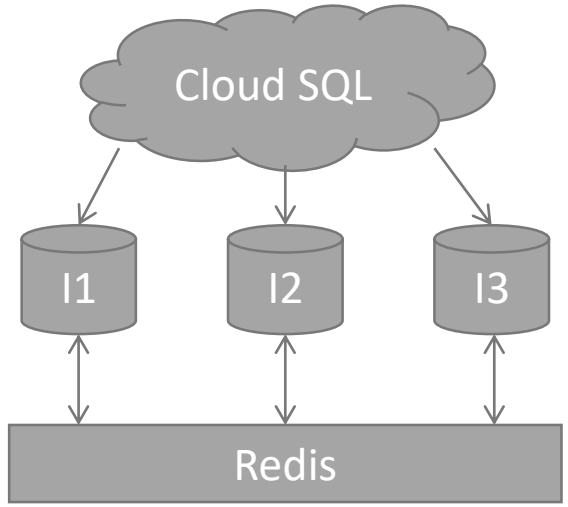
Identified Issues

- Each instance of a server has it‘s own usermap for saving active users
  - Multiple instances can‘t communicate with each other
- No implementation for failover
  - 2 running instances don‘t know from each other



Solution

- Using Redis
  - ioredis: Node library of redis (unofficial)
  - Socket.io-redis: broadcasting / emit over all instances



Problems

- Connecting Node-App with the Redis instance on bluemix failed
  - Followed the guide from IBM step by step but no success

```
var pub = new Redis("rediss://admin:GIIAUMNMDZEDCLCS@portal154-47.bix-dal-yp-5d53a8af-9ab5-4953-ab96-8db1e1507a9f.2464685681.composedb.com:17394");
```

```
Error: read ECONNRESET

    at TCP.onread (net.js:622:25)
```

Problems

- Instead using Redis instance from “Redis4You”
  - After 5 connections, restart of the instance is necessary
  - Sudden crashes of the instance happen pretty often
  - →hard to do Live-Tests

```
E:\nodejs\node.exe E:\Dokumente\Documents\git\CloudComputing_WS1718\CloudComputing_WS1718\index.js

(node:2668) UnhandledPromiseRejectionWarning: ReplyError: ERR max number of clients reached
```

Lesson-learnt

- Using multiple instances of an application is crucial for providing high availability
- Considering scale-out of an app from the beginning prevents a lot of re-coding

Live Demo

https://objective-euler.mybluemix.net/