Lab setup

Redis University offers hosted, private virtual labs for every student. The goal is to make your learning experience simple and pleasurable. However, that may not be the best solution for every student, so below we list a couple of other options for you to run the labs for this course.

If you run into any issues and need some assistance, please post a message on the discussion forums. Staff and Teaching Assistants are there to help.

Option 1 - Virtual Lab

If you are using the provided Virtual Lab, then navigate to the launch page to start a new Lab session.

Please note: After 7 days, the Labs are automatically decommissioned and any data, code and files are removed. Please store these elsewhere if you want to preserve any of this.

Option 2 - Use your own Redis environment

If you want to use you own infrastructure to run the Labs for this course, please follows these instructions

1. Download and install Redis. The minimum version is 4.0.10 for this course.

2. Confirm you have a viable Python environment

    1. Confirm Python 2.7.14 or above

```
$ python --version
Python 2.7.14
```

2. Confirm pip 9.01 or above

```
$ pip --version
pip 9.0.1 from /usr/local/lib/python2.7/site-packages (python 2.7)
```

3. Required python packages installed

```
$ pip install --upgrade --no-cache-dir redis==2.10.6 Faker
```

4. Download source code

Download and unzip the source code

5. Redis Host

The sample code will try to connect to Redis on localhost on port 6379. If Redis is running on a different Host or Port, then you need to set the following environment variables:

`REDIS_HOST`: The IP address or hostname of your Redis server, eg. test06.acme.com

`REDIS_PORT`: The port number that the Redis server is listening on, e.g. 12405

6. Validate your `PYTHONPATH`

```
$ python helloworld.py
None
```

If you receive errors failing to import packages, then confirm your `PYTHONPATH` environment variable (or equivalent) includes the path to the director where you unzipped the source code from step 4.

7. Load the sample data

The exercises and homework rely on a sample set of data. This data can be loaded as follows

```
$ python utils/dumpload.py load ru101/data/ru101.json
total keys loaded: 14328
```

When you run `helloworld.py` again, this time it should print "world".

```
$ python helloworld.py
world
```

You can also confirm the number of key present in the `redis-cli` as follows

```
> dbsize
(integer) 14328
```

Option 3 - Run the Lab in your local Docker environment

If you have access to a Docker environment, a Docker image has been created that encapsulates the IDE, Redis Server, source code and sample data. Follow these instructions to use the image.

1. Run the Docker container

```
$ docker run --rm --name redis-lab -p:8888:8888 redisuniversity/ru101-lab
```

2. Point your browser to

localhost:8888/entry.html

Windows 10

A number of students have had success running the course of Windows 10 (using the April 2018 release). This is not something we have tried ourselves. Please note that there is no active port of Redis for Windows, and software you may find is very out of dates (e.g. 3.2.1).

Students have been successful by using the Windows subsystem for Linux, and install the Linux version of Redis. See the following articles

- https://docs.microsoft.com/en-us/windows/wsl/install-win10

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