

# DevOp Test Project

Date reviewed 1/Nov/2020

## Project description:

In this project, volunteer should design implement and deploy the requested application and the bundles base on the objectives priority mentioned below.

## Subject:

The application should written in python (3.x) or Go Lang (Any version) and using any standard or non-standard library is open. The client should be able to execute the "DIG", "TRACEROUTE", and "WHOIS" Command with details below:

### Dig:

The user could run the entire DNS query and all available flushes should work like standard dig command (on RHEL).

### Reference:

[https://en.wikipedia.org/wiki/Dig\\_\(command\)](https://en.wikipedia.org/wiki/Dig_(command))

### Traceroute:

The user could run the traceroute command and the command should validate the input part on the destination (the valid input is IPv4, IPv6 and standard FQDN, any library is free to use) in the project code manually.

The max hop should be configurable in this part using flash `--maxh <count>` (in the project code manually)

### Reference:

<https://en.wikipedia.org/wiki/Traceroute>

### Curl:

The user could run the entire Curl query and all available flushes like standard curl command (on RHEL).

### Reference:

<https://en.wikipedia.org/wiki/CURL>

## Software requirements:

The application should be a CLI like application and the user access will be like using a standard bash command on the server that application is deploy. The application must log all the events and errors in the log file that is configurable via configuration file.

### Example:

*The application-working directory: /home/devopstest*

User command will be like:

```
#:/home/devopstest/app.py dig yahoo.com
```

```
#:/home/devopstest/app.py tracerute 4.2.2.4 --maxh 12
```

```
#:/home/devopstest/app.py curl -I https://google.com
```

### Project Objectives:

**Objective 1:** Whole the project development process must written and documented in the Source Control repository like GitHub or GitLab.

**Objective 2:** The installation script for installing the project on the destination server.

**Objective 3:** The project deployed in the CI/CD method on the destination server.

### Platform that accepted for the volunteer:

**Development platform:** Not important.

**Documentation:** standard MD format.

**Installation Script format:** Bash

**Server for test:** RHEL Centos 7 or Upper

### Bonus:

**1)** Using template manager like Ansible if it is applicable.

**2)** Register the application as the standard bash command in the development server.

**The technical helps that Derak-Cloud can helps you in:**

You can give us your Public key in RSA 4096 format and have one CentOS virtual machine with 1GB of Memory and 50GB of disk for the project. The VM has internet and it is free to use in this time, the machine will be decommissioned after the project deadline automatically so back up everything that is important for you.

### The project Validation process:

**The project deadline is 14 November 2020, 23:59:59.**

**You should give us the repository address and our reference is your last commit before the deadline on the master branch.**