Hello dear owl in the making! During our #StagiiPeBune presentation we tried to tell you a story about the world we work in. In this challenge, we invite you to step into this world and play a bit with some of the technologies that we presented.

The purpose of this challenge is to create a stack that analyses the traffic that is sent from an application to the internet. You can find attached the application in question. To get more specific, you have to create one or more container stacks (e.g. docker-compose, but you can select your favourite) that contains the following components:

- one container that runs the application below. In the same container (not a hard requirement, but rather for ease) run a script(in your preferred language) that intercepts traffic going to endpoints that run on port 80 (e.g. tcpdump). This script will write the timestamp, the destination IP(or hostname) and the port in a database.
- one container running a database in which you write the aforementioned data (your choice - e.g. mysql, mongo, cassandra, redis, etc)
- one container that will run an exporter (e.g. mongodb-exporter https://github.com/percona/mongodb_exporter, mysql-exporter https://github.com/prometheus/mysqld_exporter, redis-exporter https://github.com/oliver006/redis_exporter, cassandra-exporter https://github.com/instaclustr/cassandra-exporter, etc). Pick one according to the DB you selected. If you find another exporter for one of these DBs you can use that as well. An exporter is a program that runs some code to analyze different aspects of an infrastructure(or code) bit (a DB in this case) and exposes metrics at a port.
- one container that will run a prometheus instance that will scrape the metrics from the exporter (For a start on how to make prometheus scrape targets use https://prometheus.io/docs/prometheus/latest/getting_started/ and https://sysdig.com/blog/exporters-and-target-labels/)
- **BONUS**: Add the possibility of parsing on multiple ports
- **BONUS**: The exporter above will provide metrics about the database (how many inserts were made in the db for example, but you won't be able to break it down based on the endpoint). Write your own exporter that exports a code gathered metric regarding how many requests were made to each endpoint. You can start from https://prometheus.io/docs/instrumenting/writing_exporters/ and https://prometheus.io/docs/instrumenting/clientlibs/

Please send us an archive containing all the files that you used for solving the problem and also a short README describing your overall approach and a step by step guide for us to test what you have been working on. Please also specify what containerization stack you are using and its version (e.g. docker 18.06.3-ce). Happy coding!