



Technical Challenge - Backend Developer Python

This challenge's objective is to develop software using the Python language for Linux environments.

This software receives data from the network and saves this data to files locally, It will be a server that will receive data via stream (socket) and will save the data to files up to X bytes.

What you must deliver after the challenge is completed:

- 1) Source code of everything that was developed, whether the software is working or not;
- 2) The requirements.txt with the libraries used with the source files with pip.
- 3) Information about which libraries and versions were used;
- 4) What was the approximate time spent on the software development;
- 5) And last but not least, what difficulties did you face in the challenge.

Challenge's requirements:

Basic

- 1) The software's port that will receive data must be configurable into a configuration file;
- 2) The size of the saved files must also be configurable;
- 3) Use TCP communication;
- 4) ALL transmitted data must be stored correctly;
- 5) Files cannot exceed the maximum size under any circumstances;

Intermediate

- 1) If there is a need to store data in more than one file, the immediately preceding file must have exactly the maximum size configured, that is, it cannot be smaller than the defined maximum limit;
- 2) The file name must be configurable, as a prefix. At the time the file is opened, a timestamp must be concatenate to filename prefix.
filename = PREFIX
Generated files:
PREFIX_20180730145530

3) The server must activate a configurable timer and, if the client does not transmit data for a period equal to or greater than this period, the server must cancel the connection;

Advanced

- 1) Allow multiple clients to connect simultaneously;
- 2) Ensure that the data for each connection is stored in separate files, each with its own sequence.