

Coding exercise

- Execution environment: Linux/macOS
- Programming Language: Python 3.9.x and above

Instructions

Your task is to create two Python applications communicating with each other where *appa monitors the changes to a file which contains surrounding Wireless APs in JSON format and informs appb* which is responsible for displaying the change in format of:

- SNR and/or channel value has changed from to
- is added to the list with SNR and channel
- is removed from the list.

It should be possible to run multiple instances of app_B, preferably on different machines.

```
{
  "access_points": [
    {
      "ssid": "MyAP",
      "snr": 63,
      "channel": 11
    },
    {
      "ssid": "YourAP",
      "snr": 42,
      "channel": 1
    },
    {
      "ssid": "HisAP",
      "snr": 54,
      "channel": 6
    }
  ]
}
```

JavaScript

cat /tmp/access_points (after X seconds)

```
{
  "access_points": [
    {
      "ssid": "MyAP",
      "snr": 82,
      "channel": 11
    },
    {
      "ssid": "YourAP",
      "snr": 42,
      "channel": 6
    },
    {
      "ssid": "HerAP",
      "snr": 71,
      "channel": 1
    }
  ]
}
```

Expected output:

- MyAP's SNR has changed from 63 to 82
- YourAP's channel has changed from 1 to 6
- HisAP is removed from the list
- HerAP is added to the list with SNR 71 and channel 1

Submitting your code

- You must include instructions on how to install and run your solutions together with your code (README.md)
- If you have any dependencies (packages, libraries that you use) do not forget to mention them in the installation instructions
- You need to run your application and test it according to the instructions above (expected output); please provide a screenshot of the execution or a log file

Please do NOT upload the result to public GitHub; provide us with your results through TeamTailor, email, secure sharing location or private GitHub repo.

Notes

The assignment is not about creating a complete and polished application, but about showing us that you can design an application from the ground up. We have intentionally left the specification open to

interpretation to give you room to be creative but also to determine some suitable limits of the application. There are no absolute right and wrong answers to this exercise.

Please keep in mind:

- Code quality matters
- Please document well; preferably in markdown
- Testability is important