1. Write an algorithm (choose the language you prefer) that given a string of characters, for example {'c','a','i','o','p','a'}, will print out the list of characters appearing at least 2 times. In this specific example, it would return {'a'}. Afterwards, comment out the cost in terms of space and time.

2. Do you know what a unit test is? And an integration test? What is the difference? What about a system test?

3. Do you know design patterns? Describe one briefly.

4. Describe the pros and cons of writing a multi-process vs a multi-thread application

5. What's the most boring thing about your job? And what's the most satisfying?

6. Explain and comment this Dockerfile.

FROM bitnami/minideb:latest

RUN bash -c "echo \"$(< /dev/urandom tr -cd "[:print:]" | head -c 32; echo)\" > /tmp/auth"

RUN <<EOF cat > /remove

#!/usr/bin/env bash

test -f /tmp/auth && rm -f /tmp/auth

EOF

RUN chmod +x /remove; \

bash /remove

CMD ["/usr/bin/echo", "done"]

Please send us all your answers by attaching a plain text file.