Toptal Screening Process: Test Project Invitation

Hi

It was great speaking to you earlier. Congratulations on passing this portion of the Toptal developer screening process!

The second developer interview evaluates your skills via a take-home project. You will find the project requirements in this email. Please treat this project as if you are delivering it to a client.

The requirements for the test project are:
You want to design a continuous delivery architecture for a *scalable and secure* 3 tier Node application. Application to use can be found on https://git.toptal.com/namikp/node-3tier-app2

Both web and API tiers should be exposed to the internet and DB tier should not be accessible from the internet.

You should fork the repository and use it as the base for your system.

- You need to create resources for all the tiers.

- The architecture should be completely provisioned via some infrastructure as a code tool.

- Presented solution must handle server (instance) failures.

- Components must be updated without downtime in service.

- The deployment of new code should be completely automated (bonus points if you create tests and include them into the pipeline).

- The database and any mutable storage need to be backed up at least daily.

- All relevant logs for all tiers need to be easily accessible (having them on the hosts is not an option).

- You should fork the repository and use it as the base for your system.

- You should be able to deploy it on one larger Cloud provider: AWS / Google Cloud / Azure / DigitalOcean / RackSpace.

- The system should present relevant historical metrics to spot and debug bottlenecks.

- The system should implement CDN to allow content distribution based on client location

As a solution, please commit to the git repo the following:

- An architectural diagram / PPT to explain your architecture during the interview.

- All the relevant configuration scripts (Terraform/Chef/Puppet/cfengine/ansible/cloud formation)

- All the relevant runtime handling scripts (start/stop/scale nodes).

- All the relevant backup scripts.

Please use this private repository to version-control your code:
https://git.toptal.com

Helpful take-home project guidelines:

• This project will be used to evaluate your skills and should be fully functional without any obvious missing pieces. We will evaluate the project as if you were delivering it to a customer.
• The deadline to submit your completed project is 7 days from the date you received the project requirements.
• If you schedule your final interview after the 7-day deadline, make sure to submit your completed project and all code to the private repository before the deadline. Everything that is submitted after the deadline will not be taken into consideration.
• The final deadline to submit the code is 12 hours before the meeting time so that it can be reviewed. Anything that is submitted after this time will not be taken into consideration.
• Please join the meeting room for this final interview on time. If you miss your interview without providing any prior notice, your application may be paused for 6 months.

Please schedule an interview time that is most suitable for you. Bear in mind that you will need to present a finished project during this interview.

Once you pick an appointment time, we'll email you with additional meeting details and the contact details of another senior developer from our team who will assess your project and conduct your next interview. **They are acting as your client for this project and are your point of contact for any questions you may have during the development of this project.**

Thanks,