BTP ADX DevOps Assessment

Welcome to the interview process for the BTP ADX DevOps open position.

As an applicant to this position, we ask you to complete the following DevOps related questions and answer these as best as you can.

#Disclaimer: Since this is a recruitment and you’re not a client I’ll just be straight forward to avoid any confusion – I do understand the concepts and I can read documentation, but make no mistake the scripts were written mostly by google and chatgpt – if you make me write hello world in python on the spot – no google – can’t do it to save my life.

For example – I’m fully aware that the Helm configuration will search for an image file in the github repo theprivilegeduser/HR\_Daily\_Motivational\_Quotes (which is just for fun) when I should in fact have another repo for the docker file

Also I’m fully aware I can implement the config file inside script.py to avoid having unnecessary files and etc.

Please note, that the purpose of this evaluation is to review your understanding of Cloud DevOps key concepts, and any code provided is not required to execute successfully.

* **Please design a dashboard for the following requirement:**
* **We run a productive Java application in the cloud**
* **We are responsible for it’s availability**
* **Our application’s persistency is running on 2 Postgres instances.**
* **Our application is also consuming several different services which are critical for it:**
* **Notification service**
* **Log service**
* **Audit log service**

**Notes**

* **This is not real so feel free to make assumptions.**
* **It can be prepared on any computer app like Power Point, Word, or anything that will be convenient for you to use.**

Word file uploaded / Also Powerpoint file in folder as well

* **Write an email for:**

**Customers are opening Very High Priority tickets on your product and you are convinced that it is not related to your team but is related to another backend service. Write a convincing email to the backend team, so that they will accept ownership of the customer tickets.**

INCXXXXX – P1 – Transfer – Some short explanation – “Affected CI”

Hello XXXXX Team.

I hope you are doing well.

We have recieved multiple Very High Priority (VHP) tickets from customer regarding [XXXXX] and after some investigation on my end, it seems that the root cause is related to [XXXXX] which falls under your team.

Here is a brief summary:

XXXXXXXX

XXXXXXXX

XXXXXXXX

XXXXXXXX

Given the critical priority on the tickets, I would appreciate it if you take ownership and assign someone asap.

Please let me know and feel free to contact me if any issue arise and If i can be of further help.

Thank you.

Best regards,

Name

Signature

* **Can you provide an example of a shell script that you have written that automates a task?**

#!/bin/bash

docker container prune -f

docker image prune -f

docker volume prune -f

docker network prune -f

docker image prune -a -f

docker system df

crontab -e

0 0 \*/2 \* \* /path/to/script.sh

* **Describe a source control strategy that allows multiple developers to work simultaneously on multiple different versions of a software component.**

You mean like GitHub? Or Gitlab?

Best described as a tree with branches.

You have application on version 7.4.3 and you need to support it continuously

In testing 7.4.4

In development 7.4.5

Backport issue on 6.8.1

And so on.

Every one of those teams working on a different issue / version has their own branch and they can work independently. When all work and testing is done they can do a pull request to merge their changes into the main production branch or a live older version of it.

* Write a script in python (or a similar language if you are not a python developer) that reads in configuration information from a file, gathers information from a REST API, writes the results to a SQL database and provides error handling and logging. Extra credit: Consider ways to optimize performance. Consider how you might package and deliver the script for use in an orchestration environment such as docker-compose, kubernetes, cloud foundry or something similar.

All the files are provided.

Assuming I’m using sql database and rest api that returns JSON