Cloud-QA Homework

Hiring Manager: Birender Panwar

Homework Case study

Focus area:

Stress testing of Cloud services. This exercise would help deep diving into understanding skills on various aspect of performing and stress testing

Understanding

Let's assume cloud systems use 5+ microservices and are deployed on cloud infrastructure. The system has implemented a high throughput data pipeline and data that is injected into the system passes through various microservices and finally gets delivered to the registered webhook url. Communication between microservice uses either sync or async mechanisms. Synchronous communication is done through use of HTTP API and Asynchronous communication is through messaging broker.

All data transactions get recorded into SQL DB.

Each of the cloud services are deployed in the kubernetes cluster and uses SQL DB, Redis Cache and messaging Broker (for queuing). Candidate is free to assume any of the messaging broker of his choice such as Kafka, GCP Pub/sub, Active MQ, Azure MQ etc)

Let's assume apis are available for injecting the messages into the systems

Ask from Candidates?
- Articulate assumptions?
- Define test strategy for stress testing
- Define various failure points?
- What are various performance metrics and KPIs?
- Approach for validation strategy? interface needs, support required etc

Submit the Word document or PDF covering all the above asked questions.