Q: What is DevOps?

DevOps is a set of practices that automates the processes between software development and IT teams, in order that they can build, test, and release software faster and more reliably.

Q: What DevOps is not?

- DevOps is not a separate team
- DevOps is not a product or a tool
- DevOps is not automation
- DevOps is not a technology

Q: Name some of the top tools used in DevOps? What are the tools that you have used?

- Git : Version Control System tool
- Jenkins : Continuous Integration tool
- Selenium : Continuous Testing tool
- Docker : Containerization tool

Q: What is Version control and what is the usage?

Version control allows you to:

- Revert files back to a previous state.
- Revert the entire project back to a previous state.
- Compare changes over time.
- See who last modified something that might be causing a problem.

Q: Explain some basic Git commands?

- git init – Creates a new local repository
- git clone – Create a local copy of a repository
- git commit – Commit files changes
- git push – Push commit to remote repository
- git pull – Pull code from remote repository

Q: What is Continuous Integration?

It is a development practice that requires developers to integrate code into a shared repository several times a day.
Each check-in is then verified by an automated build, allowing teams to detect problems early.

Q: Name a Continuous Integration tool?

Jenkins

Q: What is a Jenkins job?

A user-configured description of work which Jenkins should perform, such as building a piece of software, etc.

Q: Which Testing tool are you comfortable with and what are the benefits of that tool?

Selenium.

- It is free and open source
- It has a large user base and helping communities
- It has cross Browser compatibility (Firefox, chrome, Safari etc.)
- It has great platform compatibility (Windows, Mac OS, Linux etc.)
- It supports multiple programming languages (Java, C#, Python etc.)

Q: What are the advantages that Containerization provides over virtualization?

- Containers are lightweight when compared to VMs
- VMs have limited performance when compared to containers
- Containers have better resource utilization compared to VMs
- Containers startup time is seconds compare to minutes in VMs

Q: What is Docker image?

Images define both what you want your packaged application and its dependencies to look like and what processes to run when it's launched.

Q: What is Docker container?

Docker containers include the application and all of its dependencies but share the kernel with other containers, running as isolated processes in user space on the host operating system.

Q: What is Docker hub?

Docker hub is a cloud-based registry service which allows you to store manually pushed images or by using docker push command, and pull them at any time using docker pull command.

Q: What is Dockerfile? And is it used for?

A Dockerfile is a text document which contains all the commands a user could call on the command line to build an image.

Q: Which scripting languages do you think are most important for a DevOps engineer?

The language itself isn't as important

Q: What is RESTFUL API?

RESTFUL is referred for web services written by applying REST architectural concept are called RESTful services, it focuses on system resources and how state of resource should be transported over HTTP protocol to different clients written in different language.

In RESTFUL web service HTTP methods like GET, POST, PUT and DELETE can be used to perform CRUD operations.

Q: Can GET request be used instead of PUT to create a resource, is this the right way?

Yes, although GET operations should only have view rights

Q: **What is the default port for MySQL Server?**

3306

Q: **What is the syntax of retrieving data from a table?**

Select * from table_name

Q: What is Elasticsearch?

Elasticsearch is a search engine that supports full-text search engine with scheme free JSON objects and HTTP web interface.

Q: What is an index in ElasticSearch?

An index is similar to a table in relational databases.

The difference is that relational databases would store actual values, which is optional in ElasticSearch.

Q: Which language can be used querying ElasticSearch?

Any language which supports HTTP requests.

Q: What are nodes and cluster?

A node is a single server that is part of your cluster, stores your data, and participates in the cluster's indexing and search capabilities.

A cluster is a collection of one or more nodes (servers) that together holds your entire data and provides federated indexing and search capabilities across all nodes.

Q: What is Kibana and what is it used for?

Kibana is an open source data visualization plugin for Elasticsearch.

Q: What is Logstash and what is it used for?

Logstash is used to gather logging messages, convert them into json documents and store them in an ElasticSearch cluster.

Q: **What is AWS?**

AWS (Amazon Web Services) is a platform to provide secure cloud services

Q: **What is IAM and why should I use it?**

IAM is Identity And security management for AWS account, which gives the ability to control users control to your AWS resources.

Q: **What Amazon EC2 services are used for?**

Amazon Elastic Compute Cloud (Amazon EC2) is a web service that provides secure, resizable compute capacity in the cloud.

EC2 offers many machines types with different OS, CPU, Storage and networking capabilities.