**………….Nikhil Interview with GSPANN by Ranga**

What is the build?

* **Artifact:** An immutable file generated during a Build or Pipeline run which is **archived** onto the Jenkins Master for later retrieval by users.
* **Build:** Result of a single execution of a Project

What type of activities that you are doing on git (branching strategy)?

* **Feature branching**

A feature branch model keeps all the changes for a specific feature inside of a branch. When the feature is fully tested and validated by automated tests, the branch is then merged into master.

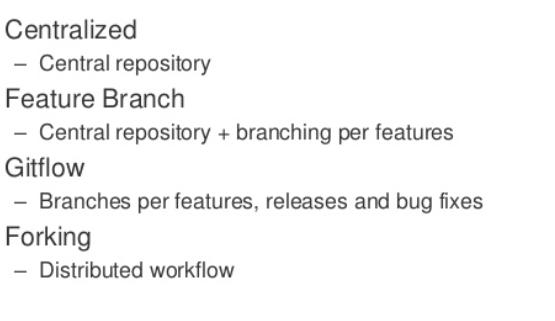
* **Task branching**

In this model, each task is implemented on its own branch with the task key included in the branch name. It is easy to see which code implements which task, just look for the task key in the branch name.

* **Release branching**

Once the develop branch has acquired enough features for a release, you can clone that branch to form a Release branch. Creating this branch starts the next release cycle, so no new features can be added after this point, only bug fixes, documentation generation, and other release-oriented tasks should go in this branch. Once it is ready to ship, the release gets merged into master and tagged with a version number. In addition, it should be merged back into develop branch, which may have progressed since the release was initiated.

In the end include that branching strategies varies from one organization to another, so I know basic branching operations like delete, merge, checking out a branch etc.



What type of activities you do on git as an administrator?

https://www.slideshare.net/doyleshawn/introduction-to-git-administration

What type of commands or questions they have (developers)?

What are the typical commands in git?

What is the use of cherry pick in git?

Cherry picking in git means to choose a commit from one branch and apply it onto another.

This is in contrast with other ways such as merge and rebase which normally applies many commits onto a another branch.

1. Make sure you are on the branch you want apply the commit to.

git checkout master

1. Execute the following:

git cherry-pick <commit-hash>

Can I cherry pick a file in git?

NO, we can patchfile or reset

What are other commits you use?

What are the different types of cookbooks and recipes that you have written?

Have you written any recipes from scratch?

What is the difference between cookbook and recipe?

“Recipe is a collection of Resources, and primarily configures a software package or some piece of infrastructure. A Cookbook groups together Recipes and other information in a way that is more manageable than having just Recipes alone.”

Can you give an example about how the recipe looks like?

Cookbook to install apache?

Install the Apache package.

package 'httpd'

# Start and enable the httpd service.

service 'httpd' do

action [:enable, :start]

end

# Serve a custom home page.

file '/var/www/html/index.html' do

content '<html>

<body>

<h1>hello world</h1>

</body>

</html>'

end

How do I include or manage dependencies?

Berkshelf and metadata.rb

Using chef are you doing any deployments or provisioning?

What are the things that you do on AWS?

What are the type of VPC networks that you set up?

VPC Scenarios:

* VPC with public subnet only -> single tier application
* VPC with public and private subnet -> layered application
* VPC with public and private subnet and h/w connected through VPN (extending to on-premise)
* VPC with private subnet only and h/w connected through VPN
* VPC with IPV4 and public and private subnets
* VPC with IPV6 CIDR Block and public and private subnets with each associated with IPV6 CIDR block

What are the IAM roles that you created?

How does a policy look for S3 and IAM? (IAM policy for s3 bucket)

#### Sample S3 Bucket Policy

This S3 bucket policy enables the root account 111122223333 and the IAM user Alice under that account to perform any S3 operation on the bucket named “my\_bucket”, as well as that bucket’s contents.

{

"Version": "2012-10-17",

"Statement": [

{

"Effect": "Allow",

"Principal": {

"AWS": ["arn:aws:iam::111122223333:user/Alice",

"arn:aws:iam::111122223333:root"]

},

"Action": "s3:\*",

"Resource": ["arn:aws:s3:::my\_bucket",

"arn:aws:s3:::my\_bucket/\*"]

}

]

}

#### Sample IAM Policy

This IAM policy grants the IAM entity (user, group, or role) it is attached to permission to perform any S3 operation on the bucket named “my\_bucket”, as well as that bucket’s contents.

{

"Version": "2012-10-17",

"Statement":[{

"Effect": "Allow",

"Action": "s3:\*",

"Resource": ["arn:aws:s3:::my\_bucket",

"arn:aws:s3:::my\_bucket/\*"]

}

]

}

How does the IAM and S3 policy works (difference between them)

**S3 bucket policies** only control access to S3 resources, whereas IAM policies can specify nearly any AWS resources.

**S3 bucket policies** are attached only to S3 buckets. It specifies what actions are allowed or denied in accessing a bucket. S3 bucket policies can be attached at bucket level (not at object level), but that permissions will apply to all the objects in the bucket.

**IAM policies** specify what actions are allowed or denied on AWS resources. It can be attached to IAM users, groups, or roles. They define what a user/group/role can do in AWS resources.

You need to control the access to AWS services. IAM policies will be easier to manage since you can centrally manage all of your permissions in IAM, instead of spreading them between IAM and S3.

 You have numerous S3 buckets each with different permissions requirements. IAM policies will be easier to manage since you don’t have to define a large number of S3 bucket policies and can instead rely on fewer, more detailed IAM policies.

You prefer to keep access control policies in the IAM environment.

**Use S3 bucket policies if:**

You want a simple way to grant cross-account access to your S3 environment, without using IAM roles.

What you do with EBS (Elastic Block Storage)?

* It provides persistent storage volumes that attach to EC2 to allow you to persist data past the lifespan of a single EC2

Types of EBS Volumes you have used?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Solid State Drives (SSD) |  | Hard Disk Drives (HDD) |  |
| **Volume Type** | **EBS Provisioned IOPS SSD (io1)** | **EBS General Purpose SSD (gp2)\*** | **Throughput Optimized HDD (st1)** | **Cold HDD (sc1)** |
| **Description** | **Highest performance** SSD volume designed for latency-sensitive transactional workloads | General Purpose SSD volume that **balances price performance** for a wide variety of transactional workloads | **Low cost** HDD volume designed **for frequently** accessed, throughput intensive workloads | **Lowest cost** HDD volume designed **for less frequently** accessed workloads |
| **Use Cases** | I/O-intensive NoSQL and relational databases | Boot volumes, low-latency interactive apps, dev & test | Big data, data warehouses, log processing | Colder data requiring fewer scans per day |

What is the auto-scaling you have used and how you have used?

**Auto scaling is a feature of AWS** which allows you to configure and automatically provision and spinning up new instances without the need for your intervention. You can do this by setting thresholds and metrics to monitor. When those thresholds are crossed, a new instance of your choosing will be spun up, configured, and rolled into the load balancer pool. You’ve scaled horizontally without any operator intervention.

**Vertically Scaling:**This is an incredible feature of AWS and cloud virtualization. Spinning up a new larger instance than the one you are currently running.  Pause that instance and detach the root EBS volume from this server and discard. Then stop your live instance, detach its root volume. Note the unique device ID and attach that root volume to your new server. And the start it again. You have scaled vertically in-place.

Horizontal Auto Scaling allows a user to create a set of rules to start or stop a previously-provisioned Cloud Server assigned to a VIP when a pre-defined monitoring threshold is breached. This allows users to scale the number of servers servicing a VIP up or down based on monitoring results. Horizontal Auto Scaling rules can be created to manage multiple Cloud Servers deployed within the same Server Farm.

Vertical Auto Scaling allows a user to create a set of rules to modify the amount of CPU or RAM allocated to an existing Cloud Server when a pre-defined threshold is breached. This allows users to scale the resources assocaited with a given server based on monitoring results. However, since changes to CPU/RAM require a restart of the server, the server also incurs brief downtime as part of this change. An individual Vertical Auto Scaling rule can only be applied to a single Cloud Server.

How do you configure ASG?

What are the types of load balancers you have used? And What is the difference between CLB and ALB?

Elastic Load Balancing automatically distributes incoming application traffic across multiple targets, such as Amazon EC2 instances, containers, and IP addresses. It can handle the varying load of your application traffic in a single Availability Zone or across multiple Availability Zones. Elastic Load Balancing offers three types of load balancers that all feature the high availability, automatic scaling, and robust security necessary to make your applications fault tolerant.

**Application Load Balancer**

Application Load Balancer is best suited for load balancing of HTTP and HTTPS traffic and provides advanced request routing targeted at the delivery of modern application architectures, including microservices and containers. Operating at the individual request level (Layer 7), Application Load Balancer routes traffic to targets within Amazon Virtual Private Cloud (Amazon VPC) based on the content of the request.

**Network Load Balancer**

Network Load Balancer is best suited for load balancing of TCP traffic where extreme performance is required. Operating at the connection level (Layer 4), Network Load Balancer routes traffic to targets within Amazon Virtual Private Cloud (Amazon VPC) and is capable of handling millions of requests per second while maintaining ultra-low latencies. Network Load Balancer is also optimized to handle sudden and volatile traffic patterns.

**Classic Load Balancer**

Classic Load Balancer provides basic load balancing across multiple Amazon EC2 instances and operates at both the request level and connection level. Classic Load Balancer is intended for applications that were built within the EC2-Classic network.

How do you use CFT’s?

AWS Cloud Formation is basically giving an easy way to create and manage a collection of related AWS resources, provisioning and updating them in a sequential and predictable format.

* It allows to create ad provision AWS resources in a reusable template fashion.
* Turns the resource into the stack that works as units
* Allows to source control your architecture
* These templates are JSON format (JavaScript Object Notation)
* A CFT can have the 8 sections as mentioned below:
* **AWS Template Format Version:** Which template version want to use.
* **Description:** Differentiate between templates.
* **Metadata:** JSON object contains data about templates
* **Parameters:** Extra values for templates to use (customize templates)
* **Mappings:** Maps keys to values (different values for different regions)
* **Conditions:** Checking conditions what to do
* **Resources:** Creating different resources. (This section is mandatory for each CFT)
* **Outputs:** Output values.
* **Parameters:** It is like giving the inputs.
* **Ex:** If a user wants to give a access key, selecting a region. Those kinds of thing we give them as parameters.
* **Resources:** Here we mention what kind of aws resource we want (ex: EC2, S3, ELB)
* **Mappings:** It is like the, if you have different zones and regions, so if you want map something to a particular region we can use mappings.

**Intrinsic functions:**

These are used to pass in values that are not available until run time.

**Cloud Formation Rollback:**

* If a cloud formation templates stack fails, then by default rollback will happen.
* Can be disabled from API

**Advanced Concepts:**

* Allows to use regular expressions
* Provided cloud-init => like EC2 resources, etc.

What are the types of CFT’s you have written?

http://docs.aws.amazon.com/AWSCloudFormation/latest/UserGuide/cfn-whatis-concepts.html

What are the types of scripting (scripts) that you have written?

What is the complex script that you have written?

What are the types of monitoring you have used?

What is your role in nagios?

**Thilak Interview with GSPANN by Ranga**

What is DevOps and what you do?

What are the activities you have performed in DevOps?

What are the VCS that you have used? What is your expertise level?

What types of activities in Git?

How do you create a branch?

What are the commands that you have used in git?

What happens when you do git commit?

What do you do to store the commit to the main repository?

When you get a conflict, what are things you do?

What are situations that you would get the conflict?

**MERGE CONFLICT**

A merge conflict happens when two branches both modify the same region of a file and are subsequently merged. Git can't know which of the changes to keep, and thus needs human intervention to resolve the conflict.

Merge conflicts can be resolved either by using **git mergetool** which walks us through each conflict in gui. Or, it can be done using the **diff3 merge conflict style** by setting git config merge.conflictstyle diff3. It separates the file into three parts with 1st part being the destination of the merge, ,2nd part is common and the 3rd one is the source part.

What is the difference between git merge and rebase?

**MERGE VS REBASE**

When we want the changes from master to working copy, it can be done in two ways: merging and rebasing. If we merge, then the changes on the master would be applied on to the working copy with a new commit. The second option is to rebase the entire feature branch on to the tip of master branch by fetching the changes, thus changing the actual history of commits. The benefits of rebasing are that it avoids the unnecessary merge commits required by git merge and will also yield linear project history.

When do you use prefer to merge and rebase?

What is CI and What do you?

Have you tried set up the CI pipeline? (What are the steps in CI)

Jenkins Pipeline is a suite of plugins which supports implementing and integrating continuous delivery pipelines into Jenkins. Pipeline provides an extensible set of tools for modeling simple-to-complex delivery pipelines "as code" via the Pipeline DSL.

The pipeline methodology is used for job chaining to automatically start other jobs which are dependent on a job and for rebuilding the jobs when there is a change in one of its dependencies. Let us assume that there are three jobs Project A, B and C in such a way that A is dependent on B which is dependent on C. In this illustration, While B is a downstream job to A, C is a downstream project to B. Inversely, A is an upstream job to B and B is upstream project to C.

**CI/CD PROCESS**

**Build Part**

Whenever Developer commits the code to mainline trunk or master in case of git and push the code to the github, Jenkins will check out the code using poll scm and it will kick off the maven scripts and maven will do the compile, test, package, install and deploy to the artifactory here we use nexus in my current project. Here I configured nexus with maven whenever we do mvn deploy, Artifacts are deployed into the nexus repository. There are again snapshot and release versions, For Continuous integration part we keep on using snapshot version, Whenever developer thinks that the development is done and says like we are good to go for the release. Then there is another build which will be kicked off called release build where it will checkout the latest code, builds the code and deploys the artifacts to the nexus release repository. Till here build part is over.

Of course, we will run code quality checks, unit test cases, unit tests, integration test and if everything is good we are going to publish into the nexus repository.

**Deployment Part**

Coming to deployment we need to create different environments like QA, UAT, PROD

For the deployment part also we will have a job called deploy job. Deploy job will have some parameters like environment, Component, Branch and version. Depending on the environment Jenkins will kick of the CFT templates from GIT repository and CFT will spin off the instances in AWS and

It is Integrated chef with CFT where chef will take care of provisioning of nodes where we kind of install and configure different packages.

Downloads Chef-Client package,

installs chef-client,

also download required keys like user.pem and validator.pem and configuration files for authenticating node to the chef server into /etc/chef/ directory DevOps Fundamentals FORMAC INC

and bootstrap the node to register node into the chef server, (Then after we Assign the role consisting of the runlists which are having required cookbooks to configure the node for particular cookbook) and runs the chef-client on the node and deploys the artifact into the newly created environment. For example if I give the parameter as QA, QA environment is created and Deploy the artifacts into QA environment. Now we will give the QA env for the testing purposes, If the testing is done and everything is good we will promote the same code into different other environments like UAT, Stage and production.

We have deployment cookbook to pull the artifacts from artifactory and deploy to Weblogic

What are the deployment tools you have used?

Do you any of the CM tools?

What do you do in Ansible?

What is the components in the ansible playbooks?

What is the complex playbook that you have written?

How much are you familiar with cloud platform?

Which platform? What type of work you have done?

What are the types of storage buckets in aws?

What you do to create an EC2 instance?

Are you familiar with terraform?

What did you do in IAM?

What are the policies that you have assigned?

What is VPC? What is the usage?

**Vidya Praveen Interview with GSPANN by Ranga & Sarath?**

Can you walk me through the CI process?

How you are going to solve the dependencies?

I want to run a playbook against one server, I want to identify that one process can be executed only once on one server. (let’s imagine setting up some kind of DB and I need to load the default schema on top of the DB). How will I achieve the process? Or I want to download a from internet, and run it?

Next we need to install Nginx.

- name: Install Nginx

apt:

name: nginx

state: present

force: yes

update\_cache: yes

The command is fairly self explanatory, but state and update\_cache are worth touching upon. The state parameter indicates the desired package state, in our case we want to ensure Nginx is installed, but you could pass latest to ensure that the most current version is installed. Due to adding a new repo in the prior command we also need to ensure we run apt-get update, which the update\_cache parameter handles. This will ensure the repo caches are updated, so that Nginx pulls from the develop branch and not the stable branch.

Next we now need to clone down the [Nginx configuration](https://github.com/A5hleyRich/wordpress-nginx) files if we haven’t already.

- name: Check Nginx configs exist

stat: path=/etc/nginx/.git

register: git\_exists

This checks for the existence of the .git directory. If it exists we can assume we’ve already performed the clone.

- name: Remove default Nginx configs

file:

path: /etc/nginx

state: absent

when: not git\_exists.stat.exists

If the .git directory doesn’t exist, remove the default configuration files.

- name: Clone Nginx configs

git:

repo: https://github.com/A5hleyRich/wordpress-nginx.git

dest: /etc/nginx

version: master

force: yes

when: not git\_exists.stat.exists

Next, clone the repo if .git doesn’t exist.

- name: Symlink default site

file:

src: /etc/nginx/sites-available/default

dest: /etc/nginx/sites-enabled/default

state: link

notify: reload nginx

The file module allows us to symlink the default site into the sites-enabled directory, which configures a catch-all virtual host and ensures we only respond to enabled sites. You will also see that we notify the reload nginx [handler](https://github.com/A5hleyRich/wordpress-ansible/blob/master/roles/nginx/handlers/main.yml) for the changes to take effect.

- name: Set Nginx user

lineinfile:

dest: /etc/nginx/nginx.conf

regexp: "^user"

line: "user {{ username }};"

state: present

notify: restart nginx

What is ENTRYPOINT in Docker?

What is the difference between ENTRYPOINT and CMD?

**Docker RUN, CMD and ENTRYPOINT:**

* RUN executes command(s) in a new layer and creates a new image. E.g., it is often used for installing software packages.
* CMD sets default command and/or parameters, which can be overwritten from command line when docker container runs.
* ENTRYPOINT configures a container that will run as an executable.

**RUN:**

RUN instruction allows you to install your application and packages requited for it. It executes any commands on top of the current image and creates a new layer by committing the results. Often you will find multiple RUN instructions in a Dockerfile.

RUN has two forms:

* RUN <command> (shell form)
* RUN ["executable", "param1", "param2"] (exec form)

**CMD:**

CMD instruction allows you to set a default command, which will be executed only when you run container without specifying a command. If Docker container runs with a command, the default command will be ignored. If Dockerfile has more than one CMD instruction, all but last CMD instructions are ignored.

CMD has three forms:

* CMD ["executable","param1","param2"] (exec form, preferred)
* CMD ["param1","param2"] (sets additional default parameters for ENTRYPOINT in *exec* form)
* CMD command param1 param2 (shell form)

Again, the first and third forms were explained in *Shell and Exec forms* section. The second one is used together with ENTRYPOINT instruction in *exec* form. It sets default parameters that will be added after ENTRYPOINT parameters if container runs without command line arguments. See ENTRYPOINT for example.

**ENTRYPOINT**

ENTRYPOINT instruction allows you to configure a container that will run as an executable. It looks similar to CMD, because it also allows you to specify a command with parameters. The difference is ENTRYPOINT command and parameters are not ignored when Docker container runs with command line parameters. (There is a way to ignore ENTTRYPOINT, but it is unlikely that you will do it.)

ENTRYPOINT has two forms:

* ENTRYPOINT ["executable", "param1", "param2"] (exec form, preferred)
* ENTRYPOINT command param1 param2 (shell form)

Be very careful when choosing ENTRYPOINT form, because forms behaviour differs significantly.

##### **Exec form**

Exec form of ENTRYPOINT allows you to set commands and parameters and then use either form of CMD to set additional parameters that are more likely to be changed. ENTRYPOINT arguments are always used, while CMD ones can be overwritten by command line arguments provided when Docker container runs. For example, the following snippet in Dockerfile

ENTRYPOINT ["/bin/echo", "Hello"]

CMD ["world"]

when container runs as docker run -it <image> will produce output

Hello world

but when container runs as docker run -it <image> John will result in

Hello John

Host mode and Bridge mode in docker?

I have a docker image (so called example image:1.0) on my linux image, all of sudden your company decided that we will host this image on private registry and the private registry is called registry.mycompany.com. So how will you push the example image:1.0 image to the registry.mycompany.com location?

What is the difference b/w soft link and hard link how they will work?

What is the primary key in DB?

What is GRUB?

**GRUB**

* GRUB stands for Grand Unified Bootloader.
* If you have multiple kernel images installed on your system, you can choose which one to be executed.
* GRUB displays a splash screen, waits for few seconds, if you don’t enter anything, it loads the default kernel image as specified in the grub configuration file.
* GRUB has the knowledge of the filesystem (the older Linux loader LILO didn’t understand filesystem).
* Grub configuration file is /boot/grub/grub.conf (/etc/grub.conf is a link to this). The following is sample grub.conf of CentOS.

#boot=/dev/sda

default=0

timeout=5

splashimage=(hd0,0)/boot/grub/splash.xpm.gz

hiddenmenu

title CentOS (2.6.18-194.el5PAE)

root (hd0,0)

kernel /boot/vmlinuz-2.6.18-194.el5PAE ro root=LABEL=/

initrd /boot/initrd-2.6.18-194.el5PAE.img

* As you notice from the above info, it contains kernel and initrd image.
* So, in simple terms GRUB just loads and executes Kernel and initrd images.

Where do you specify (change) DNS server settings?

What is the difference between SVN and Git (Why Git is popular)?

**GIT VS SVN:**

* GIT is a distributed VCS while SVN is a centralized VCS. (in SVN version history is on server side copy).
* In the case of large binary files, GIT is problematic in storing them while with SVN, the checkout times are faster with just the latest changes being checked out in SVN.
* Branching is considered to be lighter in GIT than SVN as in GIT a commit to a local repository is referred to as branch and it is easy to create and publish them at discretion.
* While GIT assumes all of the contributors have the same permission, SVN allows to specify read and write access controls.
* While SVN calls for network connection for every commit, GIT doesn’t.

Let’s Imagine I have a server sitting behind the firewall, and Nagios server is sitting in AWS Cloud. Nagios can’t reach the server but the server can reach the nagios then How will I monitor the server using Nagios?

How to block a specific port on Redhat Linux Machine?

## Block Incoming Port

The syntax is as follows to block incoming port using IPtables:

|  |
| --- |
| **/**sbin**/**iptables -A INPUT -p tcp --destination-port **{**PORT-NUMBER-HERE**}** -j DROP    *### interface section use eth1 ###*  **/**sbin**/**iptables -A INPUT -i eth1 -p tcp --destination-port **{**PORT-NUMBER-HERE**}** -j DROP    *### only drop port for given IP or Subnet ##*  **/**sbin**/**iptables -A INPUT -i eth0 -p tcp --destination-port **{**PORT-NUMBER-HERE**}** -s **{**IP-ADDRESS-HERE**}** -j DROP  **/**sbin**/**iptables -A INPUT -i eth0 -p tcp --destination-port **{**PORT-NUMBER-HERE**}** -s **{**IP**/**SUBNET-HERE**}** -j DROP |

To block port 80 (HTTP server), enter (or add to your iptables shell script):  
# /sbin/iptables -A INPUT -p tcp --destination-port 80 -j DROP  
# /sbin/service iptables save

What are the services that you have used in AWS?

What is Elastic Load Balancer?

Types of load balancers that you have worked on?

Difference between ALB and CLB?

What is RDS?

Relational Database Service it is type of db service in aws

What are the type of monitoring that you are familiar with?

What is the difference between recipe and cookbook?

“Recipe is a collection of Resources, and primarily configures a software package or some piece of infrastructure. A Cookbook groups together Recipes and other information in a way that is more manageable than having just Recipes alone.”

Let’s imagine I want to deal with a million elements in a list. How will solve this problem?

What are the frame works that you have used?

**Linga Reddy interview with GSPANN by Ranga & Sarath**

**Why do we need Docker 0 on a Linux system with Docker and can we change the Docker 0 to Docker 1?**

**What is docker 0 and why it is required?**

By default, the Docker server creates and configures the host system’s docker0 a network interface called docker0, which is an ethernet bridge device. If you don’t specify a different network when starting a container, the container is connected to the bridge and all traffic coming from and going to the container flows over the bridge to the Docker daemon, which handles routing on behalf of the container.

Docker configures docker0 with an IP address, netmask, and IP allocation range. Containers which are connected to the default bridge are allocated IP addresses within this range. Certain default settings apply to the default bridge unless you specify otherwise.

You can configure the default bridge network’s settings using flags to the dockerd command. However, the recommended way to configure the Docker daemon is to use the daemon.json file, which is located in /etc/docker/ on Linux. If the file does not exist, create it. You can specify one or more of the following settings to configure the default bridge network:

I have a docker image (so called example image:1.0) on my linux image, all of sudden your company decided that we will host this image on private registry and the private registry is called registry.mycompany.com. So how will you push the example image:1.0 image to the registry.mycompany.com location?

We need to create bridge network to change the docker 0.

|  |
| --- |
| You need to tag your image correctly first with your registryhost:  docker tag [OPTIONS] IMAGE[:TAG] [REGISTRYHOST/][USERNAME/]NAME[:TAG]  Then docker push using that same tag.  docker push NAME[:TAG]  Example:  docker tag 518a41981a6a myRegistry.com/myImage  docker push myRegistry.com/myImage |

Or

1. docker login --username username --password password
2. docker tag my-image username/my-repo
3. docker push username/my-repo

https://stackoverflow.com/questions/28349392/how-to-push-a-docker-image-to-a-private-repository

What is the router in openshift?

**Can you walk us through the docker tasks that you have performed?**

1. ADD: Copy a file from the host into the container.
2. CMD: Set default commands to be executed, or passed to the ENTRYPOINT.
3. ENTRYPOINT: Set the default entrypoint application inside the container.
4. ENV: Set environment variable (e.g. key = value)
5. EXPOSE: Expose a port to outside.

FROM ubuntu:16.04

MAINTAINER Chris Fidao

RUN apt-get update \

&& apt-get install -y nginx \

&& apt-get clean \

&& rm -rf /var/lib/apt/lists/\* /tmp/\* /var/tmp/\* \

&& echo "daemon off;" >> /etc/nginx/nginx.conf

ADD default /etc/nginx/sites-available/default

EXPOSE 80

CMD ["nginx"]

**Write a simple docker file to run a Ngnix image from ubuntu source?**

In Linux, how will you change DNS settings?

* Simply edit the following file: /etc/resolv.conf
* You add "nameserver xxx.xxx.xxx.xxx", where the x's are the IP addresses for your DNS server

In Linux if you need local DNS you can modify it at resolve . conf as Mohammed say before ... but if you need public DNS you need to install BIND

#### /etc/hosts file

**BIND** (**Berkeley Internet name domain**) is the most commonly used DNS (domain name system) server on the Internet, and it is the defacto standard on **Linux** and other Unix-like operating systems

What happens if we do curl <http://google.com> (where it will check)?

What is the difference between kill 9 and kill 15?

TERM(15)   
The process is requested to stop running; it should try to exit cleanly   
-KILL(9)   
The process will be killed by the kernel; this signal cannot be ignored

kill -15 <pid> send the SIGTERM signal to the process with the given id, but kill -9 send the SIGKILLsignal.   
  
SIGTERM can be handled by a program.   
Thus, the programmer can choose to which   
action he would like the process to take   
when that signal is received.   
  
SIGKILL can't be ignored, and can't   
even be handled. It tells the kernel to   
kill the process.

**What is init in Linux?**

**init** is the first process that starts in a Linux system after the machine boots and the kernel loads into memory.

It decides how a user process or a system service should load, in what order, and whether it should start automatically.

Every process in Linux has a process ID (PID) and init has a PID of 1. It's the parent of all other processes that subsequently spawn as the system comes online.

**What PID that init contains?**

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**What is Nhop in linux?**

**nohup** is a [POSIX](https://en.wikipedia.org/wiki/POSIX) command to ignore the [HUP](https://en.wikipedia.org/wiki/SIGHUP) (hangup) signal. The [HUP](https://en.wikipedia.org/wiki/SIGHUP) signal is, by convention, the way a terminal warns dependent processes of logout.

When using the [command shell](https://www.computerhope.com/jargon/s/shell.htm), prefixing a command with **nohup** prevents the command from being aborted if you [log out](https://www.computerhope.com/jargon/s/signoff.htm) or exit the shell.

The name **nohup** stands for "no hangup." The hangup (**HUP**) [signal](https://www.computerhope.com/unix/signals.htm), which is normally sent to a [process](https://www.computerhope.com/jargon/p/process.htm) to inform it that the user has logged off (or "hung up"), is intercepted by **nohup**, allowing the process to continue running.

The first of the commands below starts the program abcd in the background in such a way that the subsequent logout does not stop it.

What is Inode in linux

## **inode definition**

An inode is an entry in inode table, containing information (the metadata) about a regular file and directory. An inode is a data structure on a traditional Unix-style file system such as ext3 or ext4.

An inode is a data structure on a traditional Unix-style file system such as UFS or ext3. An inode stores basic information about a regular file, directory, or other file system object.

## **How do I see file inode number?**

* $ ls -i /etc/passwd or filename
* $ls -il filename

You can also use stat command to find out inode number and its attribute:

* $ stat /etc/passwd

Searching a file on basis of inode number

* # find /root -inum 1150561

**Delete a file:** Deleting a file in linux decrements the link count and freeing the inode number to be reused.

**Move or Rename a file:** if destination is same filesystem as the source, Has no impact on inode number, it only changes the time stamps in inode table.

**Copy file:** cp allocates a free inode number and placing a new entry in inode table.

Is it possible to increase the inode number?

What is the CI and what you have done in CI?

What are the activities that you have done? (Hands-on)

What are the different types of jobs in jenkins? (pipeline jobs)

* Free style project
* Maven project
* Monitor the external job
* Multiconfiguration job

What is meant by pipeline jobs?

Jenkins Pipeline is a suite of plugins which supports implementing and integrating continuous delivery pipelines into Jenkins. Pipeline provides an extensible set of tools for modeling simple-to-complex delivery pipelines "as code" via the Pipeline DSL

What if the test fails?

How did you manage repositories in nexus?

What is the difference between build (artifact) and snapshot?

Why you need CFT and Chef?

What is the need of implementing both chef and ansible?

Best features of ansible over chef?

Write a playbook to uninstall a package (xyz) and push a configuration file (adc.conf)

**To install a package:**

name: Install GIT & TIG

action: apt pkg={{ item }} state=installed

with\_items:

- git

- tig

hosts: webservers  
tasks:  
- name: Installs nginx web server  
apt: pkg=nginx state=installed update\_cache=true  
notify:  
- start nginx

handlers:  
- name: start nginx  
service: name=nginx state=started

**TO uninstall a package:**

- name: Remove TIG

apt: pkg=tig

state=absent

sudo: yes

What are the default IAM roles available in AWS?

How do you manage the access for s3 buckets?

If we have IAM role and S3 policy, which will take the precedence?

What are the other activities you have done AWS?

How do you enable auto-scaling?

If I want an instance to be in Auto-scaling what I have to do?