Certified Jenkins Engineer Questions

* Which answer best describes Continuous Delivery?
  + **A software development discipline where software is built so that it can be released to production at any time.**
  + A software development discipline where software is released continuously as part of an automated pipeline.
  + Building in 60 minutes or less.
  + A software development practice where contributors are integrating their work very frequently.
* Which answer best describes Continuous Integration?
  + Building in 60 minutes or less.
  + **A software development practice where contributors are integrating their work very frequently.**
  + A software development discipline where software is built so that it can be released to production at any time.
  + A software development discipline where software is released continuously as part of an automated pipeline.
* Which answer best describes Continuous Deployment?
  + Building in 60 minutes or less.
  + A software development practice where contributors are integrating their work very frequently.
  + A software development discipline where software is built so that it can be released to production at any time.
  + **A software development discipline where software is released continuously as part of an automated pipeline.**
* Which is NOT a Continuous Integration best practice?
  + Maintain a single source repository.
  + Make the Build Self-Testing.
  + Build every commit.
  + **Do everything manually with great care.**
* What's the difference between Continuous Delivery and Continuous Deployment?
  + **Continuous Delivery means the code CAN be released at any time, while Continuous Deployment means it is released continuously.**
  + Continuous Deployment means the code CAN be released at any time, while Continuous Delivery means it is released continuously.
  + Continuous Delivery and Continuous Deployment are the same thing.
  + Continuous Deployment means a longer time between releases.
* Which is not an option in the Install Wizard?
  + Create an Admin user with username and password
  + Add specific plugins
  + **Add SSH Credentials**
  + Add common plugins
* How do you Navigate to the Plugin Manager?
  + There is no graphical Plugin Manager
  + **Dashboard Left Panel -> Manage Jenkins -> Manage Plugins**
  + Dashboard Left Panel -> Manage Jenkins -> Configure System -> Manage Plugins
  + None of the others
* What programming language is Jenkins built in, and is required to be installed as a prerequisite to install?
  + Python
  + .net
  + Ruby
  + **Java**
* What can a Plugin do?
  + **All of the others**
  + Add a Build Step Option to Jenkins
  + Provide backup functionality to Jenkins
  + Manage Credentials for Jenkins
* Where is the initialAdminPassword stored on the system?
  + /opt/jenkins/
  + /tmp/Jenkins/
  + **/var/lib/jenkins/secrets/**
  + /usr/lib/jenkins/password/

Bottom of Form

* What's a Jenkins Job (or Project)?
  + The overall purpose of a Jenkins implementation
  + None of the others
  + **Can be scoped to any typical IT task, defined in Jenkins**
  + Employment for an IT worker
* How can you organize Jenkins Projects (or Jobs)?
  + Relational Databases
  + Views
  + **Folders and Views**
  + Folders
* How do you add a new folder?
  + **Click "New Item" in the left dashboard panel, then select "Folder".**
  + You can add one from another Project's Configuration view
  + None of the others
  + Add a folder on the Jenkins master file system in /var/lib/jenkins
* If you set "Child item with worst health" and recursive in the Folder config, how is the health determined for the folder?
  + **Items in nested sub-folders are used to calculate the folder's health.**
  + Folder's don't have health
  + None of the others
  + Only top scoped projects will determine the folder's health
* How can you move Items to Folders?
  + Hover and click arrow on Existing Item; choose "move"; select target folder.
  + **All of the others**
  + Click existing item; In the item view page, select "Move" in the left panel; select target folder.
  + For new items; Click folder; in the folder view, select new item; it will automatically be added to that folder.
* Where does the Jenkinsfile live?
  + None of these
  + /etc/Jenkins
  + **With your source code**
  + /var/lib/jenkins
* What's the Jenkinsfile?
  + None of these
  + It's only used for freestyle projects
  + It contains the basic configuration for Jenkins
  + **It contains the definition for a pipeline**
* What is Ant?
  + **A Java build tool**
  + A Unit testing tool
  + An acceptance testing platform
  + None of these
* What directive do you use for a declarative pipeline?
  + **pipeline {..}**
  + test {..}
  + project {..}
  + config {..}
* Which is a valid agent declaration?
  + agent any
  + **All of these**
  + agent none
  + agent { label 'Slave 1'}
* How do you configure a junit report in a Pipeline?
  + generate "junit-report"
  + junit-report "path to xml file"
  + None of these
  + **junit "path to xml file"**
* What's a Unit Test?
  + It tests against the product specifications.
  + **It tests a small piece of functionality, usually at the class method level.**
  + It tests the functionality of the project as a whole.
  + It tests components coming together.
* What's a Functional Test?
  + It tests components coming together.
  + It tests against the product specifications.
  + **It tests the functionality of the project as a whole**
  + It tests a small piece of functionality, usually at the class method level.
* What's an Acceptance Test?
  + It tests the functionality of the project as a whole
  + It tests components coming together.
  + **It tests against the product specifications.**
  + It tests a small piece of functionality, usually at the class method level.
* What's an Integration Test?
  + It tests against the product specifications.
  + **It tests components coming together.**
  + It tests a small piece of functionality, usually at the class method level.
  + It tests the functionality of the project as a whole.
* Where do you configure a shared global library?
  + **Configure System -> Global Pipeline Libraries**
  + Project Configuration
  + Configure Global Security
  + None of these.
* Which pipeline syntax runs a shell command?
  + Run
  + **sh**
  + Bash
  + shell
* How would you invoke a Docker agent?
  + None of these
  + agent docker
  + **agent { docker 'openjdk'}**
  + agent { label 'docker'}
* How do you configure notifications in a Jenkinsfile?
  + Email
  + Notice
  + **emailext**
  + alert
* How do you archive artifacts from a Jenkinsfile
  + Save
  + Export
  + **archiveArtifacts**
  + artifact
* How do you use the Jenkins CLI?
  + There is no Jenkins CLI
  + **java -jar /var/lib/jenkins/jenkins-cli.jar -s http://:8080/**
  + jcli
  + jenkins
* How do you retrieve the config in an xml format for a project using the REST API?
  + None of these
  + <http://.com:8080/project/My%20Freestyle%20Project/config.xml>
  + [**http://.com:8080/job/Freestyles/job/My%20Freestyle%20Project/config.xml**](http://.com:8080/job/Freestyles/job/My%20Freestyle%20Project/config.xml)
  + <http://.com:8080/My%20Freestyle%20Project/config.xml>
* Which is not a function provided by the Jenkins CLI?
  + Shutdown
  + who-am-i
  + **db-dump**
  + restart
* You were down in the datacenter working on something else and received a phone call to make a change on the Jenkins server. As the rack does not have sufficient power or internet for you to plug in your laptop you decide to just use the console on the server itself. How would you access the CLI?
  + jcli
  + jenkins
  + **java -jar /var/lib/jenkins/jenkins-cli.jar -s http://localhost:8080/**
  + All of the above
* How do you archive artifacts from a Jenkinsfile?
  + Save
  + **archiveArtifacts**
  + artifact
  + export
* What's an Integration Test?
  + It tests a small piece of functionality, usually at the class method level.
  + It tests the functionality of the project as a whole.
  + **It tests components coming together.**
  + It tests against the product specifications.
* What's the commonly used Java Code Coverage Plugin?
  + Maven
  + Ant
  + Gradle
  + **Cobertura**
* How do you navigate to the Matrix-based Security section from Jenkins?
  + None of the others
  + Manage Jenkints -> Configure Global Options
  + Manage Jenkins -> Configure System
  + **Manage Jenkins -> Configure Global Security**
* Your team installed an update to one of your plugins. Suddenly several of your builds start to fail. After a few minutes of troubleshooting you discover that the issue was caused by upgrading the plugin. What would you do to downgrade the plugin?
  + Use the Advanced install option in the Plugin Manager to install an older hpi file than the plugin already installed.
  + **All of these**
  + Click the "Downgrade to" button in the Plugin Manager
  + Overwrite the hpi file on the file system
* Which is a valid agent declaration?
  + agent any
  + **All of these**
  + agent { label 'Slave 1'}
  + agent none
* What's an example of SCM software?
  + **Both Git and Subversion**
  + Subversion
  + Git
  + Jenkins
* How can you assign Projects to specific agent nodes?
  + Select the node from the Project Configuration view
  + None of these
  + **Using an expression that matches a node's name or label**
  + Set the projects in the Manage Node view
* What's the difference between Pushing and Pulling code from a CI perspective?
  + Pulling is more efficient.
  + Pushing uses more resources.
  + When the source informs the build system of a code change, that's pulling. When the build system asks if there are changes to the source code, that's pushing.
  + **When the source informs the build system of a code change, that's pushing. When the build system asks if there are changes to the source code, that's pulling.**
* Which is an example of a Jenkins plugin?
  + **All of the others**
  + Parameterized Trigger
  + Pipeline
  + Credentials
* How can you trigger a downstream build?
  + In the downstream build, you can select "Triggered by another project."
  + You could use the Parameterized Trigger Plugin to trigger from an upstream project.
  + **Both "Triggered by another project" and the "Parameterized Trigger Plugin"**
  + Use the run() function passing the Downstream projects name from within an Upstream Project build step.
* Which is not a Git Plugin provided environment variable?
  + GIT\_URL
  + GIT\_COMMIT
  + GIT\_BRANCH
  + **GIT\_ORIGIN\_URL**
* You are working on a project that will build a Docker image. When the job completes it needs to trigger a build to deploy a container to your development environment for integration testing. How would you go about triggering the second build?
  + Use the run() function passing the Downstream projects name from within an Upstream Project build step.
  + In the downstream build, you can select "Triggered by another project"
  + You could use the Parameterized Trigger Plugin to trigger from an upstream project.
  + Both "Triggered by another project" and the "Parameterized Trigger Plugin"
* You have a friend who wants fame and fortune from being a developer working with Jenkins. He wants to write code for it and doesn't know anything about it yet. He wants to know what language Jenkins is written in. You of course, know the answer and are delighted to tell them. Which is it?

Which of the following do you tell them it's written in?

* + Ruby
  + **Java**
  + Python
  + .net
* How do you add a new folder?
  + Add a folder on the Jenkins master file system in /var/lib/Jenkins
  + **Click "New Item" in the left dashboard panel, then select "Folder".**
  + You can add one from another Project's Configuration view.
  + None of the others
* How can you install plugins?
  + None of these
  + Plugin Manager
  + Both the CLI and the Plugin Manager
  + Jenkins CLI
* You are tasked by management to explain Continuous Deployment. Your explanation will be used in the company's annual report so you need to ensure you understand it properly. Which is the best definition?
  + **A software development practice where contributors are integrating their work very frequently to production in an automated fashion.**
  + Building in 60 minutes or less.
  + A software development discipline where software is built so that it can be released to production at any time.
  + A software development discipline where software is built so that it can be released to production at any time.
* How can you organize Jenkins Projects (or Jobs)?
  + Relational Databases
  + Folders
  + Views
  + **Folders and Views**
* What is a code coverage test?
  + **It tests how well your code is tested.**
  + It tests against the product specifications.
  + It tests a small piece of functionality, usually at the class method level.
  + It tests components coming together.
* When would you use distributed builds?
  + When security isn't a concern
  + **When you want to preserve resources on the master node**
  + When you have few jobs and plenty of resources on your master
  + When you want to simplify your Architecture
* What's a big priority of Continuous Integration?
  + **Fixing broken builds**
  + Automate only when necessary
  + Making sure a manager approves every line of code
  + Making sure everyone gets to contribute the exact same amount
* You are in charge of a new development process and find that the current branching strategies may have room for improvement. Which types of common strategies might you recommend?
  + Feature Branching and Release Branching but not Developer Branching are common branching strategies.
  + **Developer Branching and Feature Branching and Release Branching are common branching strategies.**
  + Developer Branching and Feature Branching but not Release Branching are common branching strategies.
  + Release Branching and Developer Branching but not Feature Branching are common branching strategies.
* You're a DevOps engineer in charge of configuring Jenkins for your team's CI/CD Pipeline. You're utilizing the Jenkins Pipeline and the Jenkinsfile. You want to define a stage for your build, that utilizes the locally installed Ant and build.xml in the root of your project repository. Which is the correct syntax?
  + stage('build') { steps { sh 'ant -f build-tools/build.xml -v' } }
  + **stage('build') { steps { sh 'ant -f build.xml -v' } }**
  + stage('build') { sh 'ant -f build.xml -v' }
  + step('build') { sh 'ant -f build.xml -v' } }
* What interval syntax could I use to trigger a build every 15 minutes?
  + 15 \* \* \* \*
  + \* \* \* \* H/15
  + \* \* 15 \* \*
  + **H/15 \* \* \* \***
* What is Jenkins Matrix-based Security?
  + None of the others
  + An opti on that doesn't allow user specific permissions
  + An option that doesn't come with Jenkins by default
  + **Allows the administrator to grant very specific permissions to users and groups.**
* What directive do you use fore a declarative pipeline?
  + pipeline {..}
  + project {..}
  + test {..}
  + config {..}
* Which is a common branching strategy?
* Developer Branching
* Release Branching
* Feature Branching
* **All are common**
* What is Ant?
  + **A Java build tool**
  + An acceptance testing platform
  + None of these
  + A Unit testing tool
* Your team is working on a new project to build a CI/CD pipeline for your Docker containers. You have discovered a new plugin to help with your image build. Where would you navigate to install this new plugin?
  + **Dashboard Left Panel -> Manage Jenkins -> Manage Plugins**
  + There is no graphical Plugin Manager
  + None of the others
  + Dashboard Left Panel -> Manage Jenkins -> Configure System -> Manage Plugins
* What's not true about Build History?
  + Shows the history of Builds
  + Broken shows as red
  + **Super Stable shows as gold**
  + Stable shows as blue
* Where does the Jenkinsfile live?
  + /etc/Jenkins
  + None of these
  + /var/lib/Jenkins
  + **With your source code**
* You can set project-based security for users.
  + **True**
  + False
* How do you retrieve the config in an xml format for a project using the REST API?
  + <http://jenkins-server.com:8080/project/My%20Freestyle%20Project/config.xml>
  + [**http://jenkins-server.com:8080/job/Freestyles/job/My%20Freestyle%20Project/config.xml**](http://jenkins-server.com:8080/job/Freestyles/job/My%20Freestyle%20Project/config.xml)
  + None of these
  + http://jenkins-server.com:8080/My%20Freestyle%20Project/config.xml
* What's the difference between an Upstream Project and a Downstream Project?
  + A Downstream Project triggers an Upstream Project.
  + An Upstream project has more build steps.
  + A Downstream Project produces no artifacts.
  + **An Upstream Project triggers a Downstream Project.**
* What's the Jenkinsfile?
  + **It contains the definition for a pipeline**
  + It's only used for freestyle projects
  + It contains the basic configuration for Jenkins
  + None of these
* How do you configure the distribution of builds on each node?
  + You configure it from the Project Configuration
  + You configure it from Configure System
  + You configure it in the Global Configuration
  + **It happens largely automatically, although you can configure the number of executors on a node.**
* Where do you configure a shared global library?
  + None of these.
  + **Configure System -> Global Pipeline Libraries**
  + Configure Global Security
  + Project Configuration
* You've been promoted at work and are now in charge of the system administrators that look after the Jenkins platform for your company. You no longer want to get notifications from Jenkins, but your subordinates don't know what settings to change in a Jenkinsfile. You give them a look, and say one of the following is what needs to be changed:
  + Notice
  + **Emailext**
  + Alert
  + email
* What's a fingerprint?
  + User tracking in Jenkins
  + **An md5sum for an artifact that's tracked between projects**
  + The size of an artifact in bytes
  + The name of a file
* Over the last 6 months a large number of projects have been added to Jenkins. You have been asked by your manager to do some cleanup by creating some list views. How would you go about creating these list views?
  + Using a Regular Expression pattern
  + **All of the others**
  + Explicitly set recursively in sub-folders
  + Explicitly set projects to view
* You need to grant permissions, via matrix-based security, to run a specific command in a Jenkins pipeline. The project parameters will not allow you to create a specific user to run this task, and you have no relevant groups. Which of the following is an option?
  + Either creating a group or reassigning the user will work.
  + Create a group, add an existing user to the task, and grant permissions to that group
  + **Set permissions in Jenkins to allow anonymous users to run the command**
  + Change the workflow to require an existing user to run the task, and assign permissions to that user.
* Your company's DevOps staff is new to the continuous integration methodology. Some users are unclear on best practices, and you're hearing all kinds of feedback from them, some of it wrong. Which of the following statements is NOT a CI best practice?
  + We should really use a single source repository. That makes it easier for us to manage what gets into the build pipeline.
  + Builds should be self-testing. That allows us maximum flexibility in spotting breaking changes and prevents a lot of staff time spent trying to both integrate a change and determine why it broke the build.
  + Every commit should be built. That ensures we don't wind up with a lot of stray code, and that any future change will be testable.
  + **Build everything manually, because that prevents errors.**

* What is an SCM?
  + **Source Code (or Control) Management**
  + Structural Code Machine
  + Super Core Management
  + None of the above

* Which step is NOT part of a traditional Continuous Integration workflow?
  + Checkout from an SCM.
  + Update with latest code from the mainline.
  + **Ask your manager for permission to commit code.**
  + Add or change tests as necessary.
* What type of file extension do plugin files have?
  + **.hpi**
  + .java
  + .groovy
  + .rb
* You are interested in integrating CI/CD in your work environment, but your team lead & several of your team members do not understand the concept. Your boss believes that Continuous Delivery will mean that someone (namely, you) will need to be on-call around the clock for constant monitoring and deployment of new code. You have a 2-minute window to quickly explain what Continuous Delivery means. Out of the following answers, what is the clearest, and most succinct correct answer?
  + Continuous Delivery means code will be tested and promoted to production environment automatically.
  + You're right. Give me the on-call schedule.
  + **Continuous Delivery is a software development discipline where software is built so that it can be released to production at any time, while continuous deployment means it is released into production continuously. CI/CD is meant to shorten the amount of time needed for QA while empowering developers to keep code as up-to-date as possible.**
  + Continuous Delivery is magic, and Jenkins will make everything work without having to worry about it much.
* What is the Plugin Manager?
  + An employee on a DevOps project that ensures all systems are functional
  + A command line interface for adding documentation to Jenkins
  + **The UI to install and configure plugins in the Jenkins WebGUI**
  + None of the others
* You can set permissions for Anonymous users with Matrix-based Security.
  + True
  + False
* You've just become the administrator for the Jenkins server and the feedback you've received from the users is they're having trouble locating their jobs to run them. You've determined that folders are the most logical solution and wish to move the jobs into the new folders you've created. How would you accomplish this?
  + Hover and click arrow on Existing Item; choose "move"; select target folder.
  + **All of the above**
  + Click existing item; In the item view page, select "Move" in the left panel; select target folder.
  + For new items; Click folder; in the folder view, select new item; it will automatically be added to that folder.
* Which is NOT a Continuous Integration best practice?
  + Build every commit.
  + **Do everything manually with great care.**
  + Make the Build Self-Testing.
  + Maintain a single source repository.
* You're at a job interview and the interviewer looks at you, trying to make you nervous. He looks down at his paper, looks up at you and asks, "How would you describe continuous integration?" You think to yourself. Which of the following answers is best?
  + A software development discipline where software is released continuously as part of an automated pipeline.
  + **A software development practice where contributors are integrating their work very frequently.**
  + Building in 60 minutes or less.
  + A software development discipline where software is built so that it can be released to production at any time.
* You have a stage called "Promote to Green", and you only want to run it when "development" is the current branch in a Multibranch Pipeline. How would you use the "when" declarative to accomplish this?
  + when { branch 'development' }
  + when( $branch == 'development')
  + when 'development'
  + **when { branch 'master' }**
* What type of Agent Nodes are there?
  + Docker
  + SSH
  + **All of the others**
  + JNLP
* Jenkins, along with several other automation platforms, provides developers & operators with tools that allow them to automate the deployment of environments with preconfigured source code, including the CI Pipeline. What is this called?
  + Continuous Deployment
  + **Infrastructure as Code**
  + Continuous Integration
  + Continuous Delivery
* How would you invoke a Docker agent?
  + agent { label 'docker'}
  + agent docker
  + **agent { docker 'openjdk'}**
  + None of these
* Which is an invalid Matrix-based Security Realm?
  + Administer
  + Run
  + **Drive**
  + Slave
* Which pipeline syntax runs a shell command?
  + Run
  + Bash
  + Shell
  + **sh**
* How do you setup the Git Plugin Git hook from a Project Configuration Perspective?
  + None of these
  + Set the "Build Periodically" trigger, but you don't have to specify an interval
  + **Set the "Poll scm" trigger, but you don't have to specify an interval**
  + Set the "GitHub hook trigger for GITScm polling" trigger
* Which of the following is not a default environment variable in a Jenkins project?
  + BUILD\_NUMBER
  + NODE\_NAME
  + JOB\_NAME
  + **START\_TIME**
* What's Infrastructure as Code?
  + **Infrastructure is defined in source code, like the Jenkinsfile for a pipeline.**
  + Source code is hosted in your Infrastructure
  + None of these
  + There's no hardware
* You want to deploy a Jenkins pipeline but you are concerned about the total amount of time it will take for the deployment to complete, and you aren't concerned with files left in the working directory after a build. What should you do?
  + Use a clean checkout.
  + **Choose not to use a clean checkout.**
  + Tune the "timer" section for the project.
  + There's no way to reduce the time.
* Which menu option do you select to add a Pipeline or other Project?
  + My Views
  + **New Item**
  + Manage Jenkins
  + Credentials
* What's the SDLC?
  + None of the others
  + Super Digital Life Chain
  + Sloan Digital Legal Conference
  + **Software Development Life Cycle**
* What's a benefit of clean checkout over an incremental update?
  + It ensures there are no mistakes.
  + It's faster.
  + None of the others
  + **It ensures the working directory is clean and not tampered with.**
* What determines what can be seen in a "My View"?
  + **It shows all items a user has permission to view in Jenkins.**
  + None of the others
  + It shows all items configured in Jenkins.
  + It shows items that match a filter regular expression.
* What types of credentials does Jenkins support?
  + **All of these**
  + SSH Keys
  + Username/Password
  + Username/API Token
* In a JUnit report, if we set the "Health report amplification factor" to 2 and there's a 1% failure, what's the health score?
  + 80%
  + 75%
  + **98%**
  + 60%
* What's the Jenkins Hook URL for the Git Plugin?
  + <http://your-jenkins-server:8080/git/>
  + <http://your-jenkins-server:8080/git-api/>
  + [**http://your-jenkins-server:8080/**](http://your-jenkins-server:8080/)
  + http://your-jenkins-server:8080/github-webhook/
* You're setting up a folder config in Jenkins and you set a couple of items called "child item with worst health" and also recursive. A colleague turns to you, since you know the answers to the rest of his questions, and asks you, "how do I determine the health of the folder with those items set?" What's your answer?
  + **Items in nested sub-folders are used to calculate the folders health.**
  + Only top scoped projects will determine the health of a folder.
  + I don't know. Ask someone else.
  + Don't be silly. Folder's don't have health.
* You are given the task to install Jenkins and its prerequisites as part of an initiative to implement CI/CD. After installing the operating system you will need to make sure what language is available for Jenkins to utilize before you can successfully install it?
  + Perl
  + Python
  + Ruby
  + **Java**
* You're a DevOps engineer in charge of your team's Jenkins server. You have a particular stage in your pipeline that you want to run on a particular build node. You have to have Apache installed on this node. Assuming the node has been appropriately labeled, "apache", how would you ensure this stage ran on that node?
  + **agent { label 'apache' }**
  + agent( 'apache' )
  + 'apache' { agent }
  + apache agent
* In a JUnit report, if we set the "Health report amplification factor" to 3 and there's a 10% failure, what's the health score?
  + 60%
  + **70%**
  + 75%
  + 98%
* What kind of notification Integrations are available
  + Email
  + HipChat
  + Slack
  + **All of these**
* What does the Build Queue contain?
  + Pull requests
  + Builds waiting for an executor
  + Disabled Projects
  + Scripts waiting approval
* What is Jenkins Auditing?
  + Ensuring licenses have been paid for and allocated appropriately
  + Reviewing Build Failure rate
  + **Tracking who did what on your Jenkins server**
  + Tracking system resources
* What interval syntax could I use to trigger a build every day?
  + **All the others**
  + H H \* \* \*
  + @daily
  + 30 12 \* \* \*
* If you set "Child item with worst health" and recursive in the Folder config, how is the health determined for the folder?
  + Only top scoped projects will determine the folder's health
  + Folder's don't have health
  + **Items in nested sub-folders are used to calculate the folder's health.**
  + None of the others
* What do you need to configure an SSH agent?
  + None of these options
  + **SSH keys, with the Master's pub key set as an authorized key on the agent node**
  + A username and password configured for the slave node
  + No special authorization setup
* Which isn't a common Jenkins build tool?
  + Ant
  + Gradle
  + Docker
  + **Excel**
* What's a Jenkins Job (or Project)?
  + The overall purpose of a Jenkins implementation
  + None of the others
  + Employment for an IT worker
  + **Can be scoped to any typical IT task, defined in Jenkins**
* Your supervisor has asked you to explain to the company's development team how using Jenkins will implement continuous integration. You want to make sure the developers understand what that means to them. Which of the following is the most succinct explanation?
  + Software changes will now be added to an automated pipeline.
  + The changes the team makes will be released to production at any time.
  + Build time objectives will be targeted to take less than 60 minutes.
  + **The software development team will increase the frequency at which code changes are committed to the build, test and deployment cycle.**
* How do you set a freestyle project to be parameterized?
* Freestyle projects don't accept parameters
* Choose the Project from the Parameterized list in the Configure System section.
* All freestyle projects are parameterized
* **From Project Configuration, select "This project is parameterized."**
* What best describes DevOps?
  + The practice of developing optimal work practices
  + None of the others
  + A pioneer in education
  + **An organizational culture where developers and operations are working in harmony**
* Which plugin provides Git hook functionality?
  + The GitHub Plugin
  + **Both the Git and GitHub Plugins**
  + None of these
  + The Git Plugin
* You have taken over a build environment where Jenkins is responsible for scanning for changes made in a GIT repository every house and then apply that build to a few dozen web servers. As part of that job, Jenkins also is responsible for completing some scripted performance based tests and, depending on the defined results, marking the build as complete and notifying the team OR rolling back the build, notifying the team and marking it as failed. You notice that the build itself is now taking longer than an hour to complete, which is affecting the push of new changes on occasion. What changes could you make to your Jenkins environment to alleviate the amount of time it takes to complete and test a build so that the hourly schedule is more likely to be kept?
  + **Add one or more slave nodes to the environment, this will allow us to deploy code to multiple end points at one time. Break up the single job into multiple jobs so that each one can be triggered by the successful completion of the previous job in order to eliminate scheduling problems on beginning a new build in the event subsequent steps run longer than the intended time period.**
  + Create additional Jenkins Masters and deploy the job to each one. Schedule the job staggered by 30 minutes on each one so that the additional master servers won’t be busy if the first job runs long.
  + Remove the performance testing from the build. Schedule performance testing as a separate job 30 minutes after the build runs and trigger a rollback if the performance testing fails at this point.
  + None of the Above
* What's not true about a Build Executor?
  + It runs projects dictated by Jenkins.
  + They can run on the master.
  + You can run many of them in parallel.
  + **The default number of executors on a node is 4.**
* You can use Jenkins' database to manage users.
  + **True**
  + False
* You want to archive and track a build artifact, "build/mybuilt.jar", with a fingerprint from your team's build. How would you invoke the archiveArtifacts function to accomplish this?
  + archiveArtifacts artifacts: 'build/mybuilt.jar', fingerprint: false
  + archiveArtifacts = 'build/mybuilt.jar', fingerprint: true
  + archiveArtifacts artifacts: ''build/mybuilt.jar'
  + **archiveArtifacts artifacts: 'build/mybuilt.jar', fingerprint: true**
* Which is not an option in the Install Wizard?
  + Add specific plugins
  + Add common plugins
  + Create an Admin user with username and password
  + **Add SSH Credentials**
* What's the difference between Authentication and Authorization?
  + Authorization is more strict
  + **Authentication identifies a user, while Authorization dictates what a user is allowed to do.**
  + Authorization identifies a user, while Authentication dictates what a user is allowed to do.
  + None of the others
* What interval syntax could I use to trigger a build 30 minutes after every hour?
  + \* 30 \* \* \*
  + \* \* \* H/30 \*
  + **30 \* \* \* \***
  + \* \* \* \* 30
* What interval syntax could I use to trigger a build every 15 minutes?
  + **H/15 \* \* \* \***
  + 15 \* \* \* \*
  + \* \* 15 \* \*
  + \* \* \* \* H/15
* What can a Plugin do?
  + Add a Build Step Option to Jenkins
  + Provide backup functionality to Jenkins
  + Manage Credentials for Jenkins
  + **All of the others**
* What's an example of a Cloud-based SCM?
  + AWS CodeCommit
  + GitHub
  + **All of the others**
  + Atlassian BitBucket
* By definition, what does a Continuous Delivery pipeline consist of?
  + Backlog items
  + Artifacts
  + **Stages**
  + Tickets
  + Commitments
* You need to execute a shell script (/usr/bin/prepare-env) just before a Linux slave is started. How do you achieve this?
  + Use the “Suffix Start Slave Command” configuration option on the slave configuration.
  + **Use the “Prefix Start Slave Command” configuration option on the slave configuration.**
  + Configure a .profile file containing a call to /usr/bin/prepare-env in the home directory of the OS user which runs the slave process.
  + Add a shell step to each Job tied to this slave to execute the shell script.
* Suppose you are asked to obtain the config.xml of a folder (myFolder) from a script or HTTP client using the Jenkins Remote API. The folder exists at the root of a Jenkins master. Which URL pattern is correct for obtaining this configuration file?
  + **root/job/myFolder/config.xml**
  + root/folder/myFolder/config.xml
  + root/myFolder/config.xml
  + root/myFolder?param=config.xml
  + root/api/getConfig?source=myFolder
* What architecture is recommended by the Jenkins Cookbook for a scalable Jenkins environment?
  + **Distributed Builds Architecture**
  + Central Master Architecture
  + Automatic Builds Architecture
  + Manual Polling Architecture
  + One-Shot Build Architecture
* What's the Jenkins Hook URL for the GitHub Plugin?
  + <http://your-jenkins-server:8080/>
  + <http://your-jenkins-server:8080/git/>
  + <http://your-jenkins-server:8080/git-api/>
  + **http://your-jenkins-server:8080/github-webhook/**
* What's a benefit of incremental updates over a clean checkout?
  + None of the others
  + It's more thorough.
  + It ensures there are no mistakes.
  + **It's faster.**
* Which is a valid Environment variable string interpolation?
  + %{VARIABLE}
  + "${VARIABLE}"
  + $VARIABLE
  + **Both "${VARIABLE}" and $VARIABLE**
* You are a DevOps engineer in charge of your team's Jenkins server. Your project is on major version "1". You want to ensure that this variable, MAJOR\_VERSION, is available through out the your Pipeline that is defined in a Jenkinsfile. Which of the following ways could you accomplish that using the "environment" directive?
  + environment(MAJOR\_VERSION = 1)
  + environment { steps { sh " export MAJOR\_VERSION=1" }}
  + environment [MAJOR\_VERSION=1]
  + **environment { MAJOR\_VERSION = 1 }**
* What's a benefit of clean checkout over an incremental update?
  + It's faster.
  + It ensures there are no mistakes.
  + **It ensures the working directory is clean and not tampered with.**
  + None of the others
* What type of views can be configured in Jenkins?
  + **All of the others**
  + All View
  + List View
  + My View
* How do you setup the GitHub Plugin Git hook from a Project Configuration Perspective?
  + Set the "Build Periodically" trigger, but you don't have to specify an interval
  + Set the "Poll scm" trigger, but you don't have to specify an interval
  + **Set the "GitHub hook trigger for GITScm polling" trigger**
  + None of these
* What's the term for an item produced and retained from a build?
  + Config
  + Fingerprint
  + **Artifact**
  + source code
* Which is an invalid default project parameter?
  + **md5**
  + File
  + Boolean
  + String