

Course Assessment Test

Course Title	CI / CD with Jenkins & BitBucket	Date	16 - 17 Jan 2023
Name		Dept	

- 1) This assessment test is to be given out before course commencement. Answers are to be filled in column entitled "Pre-Course Answer"
- 2) At the end of the course, the same assessment sheet is to be given out where answers are to be filled in column entitled "Post-Course Answer". Instructor will then share the answers and participants need to total the score in both "Pre" and "Post" columns through self-marking.
- 3) Assessment sheets will be collected for filling.

No	Question	Pre-Course Answer	Post-Course Answer
1	What are the main DevOps related activities that a Jenkins automation server will perform? i. Building application code ii. Testing build artifacts iii. Monitoring build artifacts iv. Deploying build artifacts a) Activities i, ii and iii b) Activities i, ii and iv c) Activities ii, iii and iv d) All activities listed		B
2	Jenkins achieves its functionality primarily through a) A declarative language that specifies the modules to be executed on Jenkins agents b) A push-pull architecture that allows other DevOps tools to communicate with it c) A pipeline of plugins that perform a variety of DevOps related tasks d) Callbacks from triggers that are initiated from a cloud based repository such as GitHub or Bit Bucket		C
3	All of the following statements are true EXCEPT: a) A Jenkins master requires at least one agent node to execute a build b) Jenkins agent nodes can run a variety of OS and / or build environments c) Jenkins agents can be configured to only perform execution of certain tasks d) Jenkins master sends notifications via emails after a build failure event		A
4	Ansible is an open source automation framework that performs all of the following activities EXCEPT: a) Automating infra provisioning b) Configuration Management (CM) c) Deploying applications d) Continuous Integration (CI)		D

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5	<p>How does the Ansible control node determine the hosts that it is responsible for interacting with and managing?</p> <ul style="list-style-type: none"> a) Group list b) Inventory c) Plugin list d) Module list 		B
6	<p>Identify a tool from the list below that performs all of the key Continuous Integration (CI) functionality in a DevOps lifecycle.</p> <ul style="list-style-type: none"> a) Puppet b) Nagios c) Travis d) Maven 		C
7	<p>What is the primary difference between Continuous Delivery and Continuous Deployment in a CI / CD pipeline?</p> <ul style="list-style-type: none"> a) Continuous Delivery is only focused on transitioning build artifacts to a staging environment, but does not deploy them onto the production server b) Continuous Delivery fully automates the higher-level tests (integration tests, UAT) executed on build artifacts in a staging environment c) Continuous Deployment fully automates the provisioning of the infra for the production server that the build artifact is deployed on d) Continuous Deployment does not require manual approval of the final tested code base prior to its deployment to the actual production server 		D
8	<p>Identify the statements about Infrastructure As Code (IAC) that are accurate:</p> <ul style="list-style-type: none"> i. Uses special configuration files / modules to manage and provision IT infra ii. IT infra that is provisioned can be virtual (VMs on cloud providers) as well as bare-metal servers iii. Its is important to ensure that IAC configuration files are maintained in VCS iv. An example of a possible IAC tool option is Splunk <ul style="list-style-type: none"> a) Statement i, ii and iii b) Statement i, ii and iv c) Statement ii, iii and iv d) All statements listed 		A
9	<p>What is the key feature of a VCS like Git that is used in CI which supports code development in parallel by team members of a software project team?</p> <ul style="list-style-type: none"> a) Annotated snapshots b) Branches c) Snapshot parallel reversion d) Parallel commit modification 		B

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10	<p>What is the version control management strategy that is particularly popular for CI / CD pipelines ?</p> <ul style="list-style-type: none">a) Forking workflowb) GitFlowc) Trunk-based developmentd) Integration-and-test workflow		C
Total			