

GIT

1. _____ command is useful for getting a high-level overview of the project history.

```
git log --oneline @
git reset --hard
git log --author=""
git rebase
```

2. _____ removes untracked files from your working directory.

```
git commit
git clean -f
git clean @
git reset
```

3. Command to download all the objects and references from a specified repository

```
git config --list
git help
git fetch @
git log -n
```

4. _____ command renames the current branch to <branch>

```
git remote rm
git branch -m @
git branch -D (CAPS)
git rebase
```

5. Which Git command displays the patch representing each commit.

```
git branch
git remote -v
git log -p @
git log
```

6. If you want to make radical changes to your team's project and don't want to impact the rest of the team, you should implement your changes in

```
-
the root
a tag
the trunk
None of the above @
```

5. The Git clone command does which of the following?

```
Makes a local copy of the repository
Creates a working directory
Commits a new branch
Both 1 & 2 @
```

6. Which one of the following is not part of the data structure of a Git repository?

```
Branch pointer
Body element @
Commit object
Head pointer
```

7. GIT belongs to the..... generation of Version Control tools
2nd

3rd @
4th
5th

8. Git command used to give tags to the specified commit.

git checkout [branch name]
git show [commit]
git tag [commitID] @
git rm [file]

9. The files that can be committed are always present in git:

- A. staging area @
- B. unstaged area
- C. working directory
- D. none

10. Which of the following is not true about git?

- A. Pull operation copies the changes from a local repository to remote repository @
- B. By default Git has a master branch
- C. Git clone operation creates the instance of the repository.
- D. none

11. Which of the following option is not valid with git stash command?

- A. git stash list pop
- B. git stash list clear
- C. git stash list push @
- D. git stash changes

12. Which of the following statement is true about git ignore file?

- A. We can create multiple ignore files in a different directory.
- B. The .gitignore file contains all the formats and files that should be ignored while commit
- C. Both of the above. @
- D. None

13. Which command helps us to see the tracked, untracked files and changes but does not show any commit records?

- A. git diff
- B. git status @
- C. git log
- D. None of these

14. What does the below git command indicate? git add *.java

- A. The above command will exclude all the Java files while staging
- B. It will give error - "invalid command"
- C. The above command will commit all the Java files
- D. The above command will stage all the Java source files @

15. is a version of the repository that diverges from the main working project:

- A. master
- B. fork
- C. branch @
- D. clone

16. How to add Multi-line Git commit message from CLI?

To add Multi-line Git commit message from CLI

```
git commit -m 'message one' -m 'message 2' -m 'message n'
```

17.How to change the date of a commit in Git?

You can use `GIT_COMMITTER_DATE="$(date)" git commit --amend --no-edit --date "$(date)"` to change the date of a commit in Git.

18.How to clone a specific branch in git?

For this, you must execute the "git branch" with the "-b" and mention the branch that you would want for cloning.

19.What is best way to delete unused local branches in Git?

The Easy way to delete unused local branches in Git is

```
git checkout master
git branch | xargs git branch -d
```

20.List some git basic commands?

git add, git status , git branch, git init, git commit, git config, git checkout, git merge are few basic git commands.

Dockers

1.Docker install

```
sudo apt-get install docker
```

2.To display only running containers

```
docker ps
```

3.To display all the containers

```
docker ps -a
```

4.To create Docker file

1.nano Dockerfile or gedit Dockerfile

2.docker build -t vicky .

3.docker run -t vicky

5. Write a command to stopping and restarting a Docker container?

```
docker stop container_id
```

```
docker restart container_id
```

6) Write a command to create a Docker image?

```
docker build -t image_name
```

7) Write a command to view all the running Docker containers?

```
docker ps -a
```

8) What command is used for running images as a container?

```
docker build -t image_name .
```

```
docker run -it image_name
```

9) What is a cloud-hosted service of Docker providing registry capabilities for public and private content?

Docker hub

10) What is a template used for describing a build of an image?
Docker file

11) Multiple containers running on a single machine all share the same resources such as the operating system kernel for instant boot and efficient utilization of RAM. True or False?
True

12) What command is used for remove all stopped containers, unused networks, build caches, and dangling images?
Docker system prune

13) What command is used for running images as a container?
docker build -t image_name .
docker run -it image_name

14) Explain what are Dockerfiles?
Dockerfile is a normal text file with instructions for configuring an image. Instructions include tasks such as creating a directory, copying file from host to container etc.
Eg. To install fire fox and git in a single docker file
FROM centos
MAINTAINER pri.rameshk@gmail.com
RUN yum install -y git \
 firefox
docker build -t vicky .
docker tun -it vicky

15. Which of the following is the native clustering for Docker?
Docker Hub
Docker Cloud
Docker Swarm @
Docker Compose

16.What port does Docker registry use?
Port 3000
Port 5000 @
Port 8000
None of the above

17. How many private repositories are allowed for a individual on Docker hub?
1 @
2
3
4

18.How many states are there of docker containers?
A. Three
B.Four @
C.Five
D.Six

19.How you manage Docker images?
A. Docker Hub
B.Docker Registry
C.Docker Swarm

D.Both A & B @

20.Docker Machine manage virtual hosts that use_____

A. Command line @

B.Docker Datacenter

C.Graphical user interface

D.Any of the above

21.What is a Dockerfile?

A. A developer who loves Docker and containerization, frequently espousing its virtues

B.Any report or document that Docker components produce

C.Any folder or document to run Docker components

D.A template used to describe the build of an image @

*****ANSIBLE*****

Which argument will you use to specify a variable for your Ansible
playbook?

A. -c

B.-d

C.-e @

D.None of them

What is the default location for Ansible ?

A. /usr/ansible

B./user/share/ansible_name @

C./usr/share/ansible

D.Both A & B

Which module will you utilize to create a directory?

A. template

B.file @

C.data

D.fetch

Ansible module is utilized for managing docker _____

A. docker

B.docker_login

C.docker_image

D.docker_service @

What is inventory in ansible?

A. --vars

B.--list

C.--export

D.All of the above @

What is use of ask_pass module in Ansible?

A. ansible-ask-pass

B.ansible-passbook --ask-pass

C.ansible-playbook --ask-pass @

D.Both A & B

Command to check the playbook for syntax errors, but it does not execute it.

```
ansible-playbook <playbook.yml> --syntax-check      @
ansible-playbook <playbook.yml> --check
ansible-playbook <playbook.yml> --list-hosts
ansible-playbook <playbook.yml> --skip-tags
```

Which of following commands will check ansible inventory and group variable

```
ansible-inventory --list      @
ansible-inventory -graph
ansible-inventory -h
ansible-inventory -v
```

What's the Ansible Playbook execution order?

```
Playbook->Play->Tasks->Task      @
Playbook->Play->Task->Tasks
Play->Playbook->Tasks->Task
Playbook->Tasks->Play-Task
```

1. Which of the following terms best describes the Ansible architecture?

- a. Agentless @
- b. Client/Server
- c. Event-driven
- d. Stateless

2. Which network protocol does Ansible use by default to communicate with managed nodes?

- a. HTTP
- b. HTTPS
- c. SNMP
- d. SSH @

3. Which of the following files defines the actions that Ansible performs on managed nodes?

- a. Host inventory
- b. Manifest
- c. Playbook @
- d. Script

4. What syntax is used to define Ansible Playbooks?

- a. Bash
- b. Perl
- c. Python
- d. YAML @

5. Which of the following statements best describes roles?

- a. Configuration settings that allow specific users to run Ansible Playbooks.

- b. Playbooks for a data center.
- c. Collection of YAML task files and supporting items arranged in a specific structure for easy sharing, portability, and @

6. Which of the following can be specified in roles?

- a. Handlers
- b. Tasks
- c. Templates
- d. Variables
- e. All of the above @

7. Which file declares role dependencies?

- a. The Ansible Playbook that uses the role.
- b. The meta/main.yml file inside the role hierarchy. @
- c. The meta/main.yml file in the project directory.
- d. Role dependencies cannot be defined in Ansible.

8. Which file in a role's directory hierarchy should contain the initial values of variables that might be used as parameters to the role?

- a. defaults/main.yml
 - b. meta/main.yml @
 - c. vars/main.yml
 - d. The host inventory file.
9. In Which Language Ansible engine written?

- a. C
- b. C++
- c. Java
- d. Python @

10. What language is an Ansible playbooks are written in by default ?

- a. XML
- b. HTML
- c. JSON
- d. YAML @

11. The task is a unit action of Ansible.

- a. Yes @
- b. No
- c. Can be yes or no
- d. Can not say

12. Which is the correct syntax of ask_pass module in Ansible?

- a. ansible-ask-pass
- b. ansible-passbook --ask-pass
- c. ansible-playbook --ask-pass @
- d. Both A& B

13. Which module will you utilize to create a directory?

- a. template
- b. file @
- c. data

d.fetch

14. Which command will you use to run a playbook called install.yaml with Ansible?

Ans: ansible-playbook install.yaml

15. What does 'become: yes' mean in Ansible playbooks?

Ans: It means that we would run all commands as root

Kubernetes

What is the basic operational unit of Kubernetes?

- A. Task
- B.Nodes
- C.Pod @
- D.Container

Kubernetes cluster data is stored in _____

- A. Etcd @
- B.Kubelet
- C.Kube-apiserver
- D.None of them

Kubernetes version 1.8 introduced _____

- A. Secrets
- B.Taints and Tolerations @
- C.Federated Clusters
- D.Cluster level Logging

Kubernetes Network proxy runs on which node ?

- A. Master Node
- B.Worker Node
- C.CIDR Node
- D.Both A & B @

_____ runs on each node and ensures containers are running in a pod.

- A. Etcd
- B.Pod
- C.Kubelet @
- D.Scheduler

Replication Controllers and Deployment Controllers are part of

- A. Etcd manager
- B.Kubeadm
- C.API Controller Manager
- D.Master Controller Manager @

Which of them is a Kubernetes Controller ?

- A. ReplicaSet
- B.Deployment
- C.Rolling Updates
- D.Both A & B @

Kubernetes is developed by _____

- A. IBM
- B. Microsoft
- C. Google @
- D. None of them

Cronjobs in kubernetes run in

- A. UTC only @
- B. GMT only
- C. Local time zone
- D. None of the above

Kubernetes API currently supports type of selectors.

- A. Set-based selectors
- B. Equality-based selectors
- C. both Set-based & Equality-based selectors @
- D. None of the above

Different types of pods in kubernetes

Single container pod.

Multi container pod.

..... manages the assigning nodes to pods depending on resource availability.

- Etcd
- Kubect1
- Scheduler @
- None of above

Which of the following command is used to create kubernetes service?

- Kubect1 run
- Kubect1 deploy
- Kubect1 expose @
- None of the above

Kube-apiserver on kubernetes master is designed to scale.

- Vertically
- Horizontally @
- Both Vertically & Horizontally
- None of above

which of the following process runs on kubernetes non-master node?

- Kube-proxy @
- Kube-apiserver
- Both Kube-proxy & Kube-apiserver
- None of above

..... is responsible for health check of the pods running on individual nodes.

- Kubect1
- Kubelet @
- Kube scheduler
- Kube controller manager

Identify the type of pipelines in Jenkins?

- A. Declarative pipeline
- B. Scripted pipeline
- C. CI CD pipeline (Continuous Integration Continuous Delivery)
- D. All of the above @

- 1) At its core, Kubernetes is a platform for:
 - A. Provisioning machines (similar to Puppet, Ansible)
 - B. Running and scheduling container applications on a cluster. @
 - C. Packaging software in containers
- 2) Which of the following are core Kubernetes objects ?
 - A. Pods
 - B. Volumes
 - C. Services
 - D. All of them @
- 3) Kubernetes Network proxy runs on which node ?
 - A. Master Node
 - B. Worker Node
 - C. CIDR Node
 - D. Both A & B @
- 4) runs on each node and ensures containers are running in a pod.
 - A. Etcd
 - B. Pod
 - C. Kubelet @
 - D. Scheduler
- 5) Which of them is a Kubernetes Controller ?
 - A. ReplicaSet
 - B. Deployment
 - C. Rolling Updates
 - D. Both A & B @
- 6) are the Kubernetes controllers.
 - A. Replicaset
 - B. Deployment
 - C. Namespace
 - D. Both Replicaset & Deployment @
- 7) Kubernetes is the type of cluster management software.
 - A. True @
 - B. False
- 8) Which of the following are the components of Kubernetes Master Machine?
 - A. Scheduler
 - B. Controller Manager
 - C. API Server & etcd
 - D. All of the above @
- 9) Kubernetes API currently supports type of selectors.
 - A. Set-based selectors
 - B. Equality-based selectors
 - C. both Set-based & Equality-based selectors @
 - D. None of the above
- 10) What are the some important functionalities of a Namespace in Kubernetes?
 - A. Namespaces help pod-to-pod communication using the same namespace.

- B.Namespaces provide logical separation between the teams and their environments.
- C.Namespaces are virtual clusters that can sit on top of the same physical cluster.
- D.All of the above @

11) There are types of Pods in kubernetes?

- A. 2 @
- B.3
- C.4
- D.6

12) GKE stands for ____.

- A. Google Cluster Engine
- B. Google Kubernetes Engine @
- C. Google Container Engine
- D. None of the above

13) Which of the following commands allow you to validate a cluster created with Kubernetes operations?

- A. kubectl validate cluster
- B. kubeadm validate cluster @
- C. kops validate cluster
- D. None of the above

14) What is the default range of ports used to expose a NodePort service?

- A. 30000-32767 @
- B. 500-1000
- C. 60000-65536
- D. 1024-32767

15) Which of the following commands gives you detailed info on a Pod?

- A. kubectl describe pods @
- B. kubectl get pods -vvv
- C. kubectl get pods -detail
- D. kubectl pods inspect

16) What is the default protocol for a Service?

- A. TCP @
- B. UDP
- C. HTTP
- D. SSH

17) Which of the following is true about Pods and IP addressing?

- A. Pods only work with IPv6 addresses
- B. All containers in a Pod get unique IP addresses
- C. An external DHCP server is required for Pod IP addressing
- D. All containers in a Pod share a single IP address @

18) In Kubernetes, a node is:

- A. A tool for starting a kubernetes cluster on a local machine
- B. A worker machine @
- C. A machine that coordinates the scheduling and management of application containers on the cluster

19) What can you deploy on Kubernetes?

- A. Containers @
- B. Virtual Machines
- C. System Processes (like sshd, httpd)

- 20) We have a node named nodeA, and we want to add a tainting effect to it, which command we will use
- a. `kubectl taint nodes nodeA key:=NoSchedule` @
 - b. `kubectl taint node key:=NoSchedule`
 - c. `kubectl taint nodes nodeA`
 - d. All of the Above

Jenkins

- 1) Which of the following plugin in Jenkins?
- A. HTML publisher
 - B. Maven 2 project
 - C. Amazon EC2
 - D. All of the above @
- 2) Can we run Junits as a part of Jenkins job?
- A. True @
 - B. False
- 3). Which of the following SCM tool Jenkins supports?
- A. Subversion
 - B. AccuRev
 - C. CVS
 - D. All of the above @
- 4) Identify the type of pipelines in Jenkins?
- A. Declarative pipeline
 - B. Scripted pipeline
 - C. CI CD pipeline (Continuous Integration Continuous Delivery)
 - D. All of the above @
- 5) Which of the following merit of Jenkins?
- A. For each code commit changes an automatic build report notification generates.
 - B. Build failures are cached at integration stage.
 - C. To notify developers about build report success or failure, it is integrated with LDAP mail server.
 - D. All of the above @
- 7) What do you basic requirement to start using Jenkins?
- A. a viable source code repository
 - B. a build script that's registered on that repository
 - C. Both 1 and 2 @
 - D. None of these
- 8) Which of the following comprises in Continuous Integration?
- A. Database Integration
 - B. Development and Compilation
 - C. Unit Testing
 - D. All of the above @
- 9) Identify the CI tools?
- A. Jenkins
 - B. Travis CI
 - C. TeamCity
 - D. All of the above @

10) Is it possible to install a custom plugin on my own?

- A. Yes @
- B.No

11) Jenkins invented by

- A. Kohsuke Kawaguchi @
- B.Edward Sorin
- C.Richard C. Notebaert
- D.Thomas Aquinas

12) Jenkins developed in

- A. 2005 @
- B.2002
- C.2006
- D.2003

13) Can we delete the workspace?

- A. Yes @
- B.No

1. Which of below is not a dependency management tool?

- a) Ant
- b) Maven
- c) Gradle
- d) Jenkins @

2. Which of the following is not a maven goal?

- a) clean
- b) package
- c) install
- d) debug @

3. Which file is used to define dependency in maven?

- a) build.xml
- b) pom.xml @
- c) dependency.xml
- d) version.xml

4. Which file is used to specify the packaging cycle?

- a) build.xml @
- b) pom.xml
- c) dependency.xml
- d) version.xml

5. Which environment variable is used to specify the path to maven?

- a) JAVA_HOME
- b) PATH
- c) MAVEN_HOME @
- d) CLASSPATH

6. Which of the below is a source code management tool?

- a) Jenkins
- b) Maven
- c) Git @
- d) Hudson

10. Which maven plugin creates the project structure?

- a) dependency
- b) properties
- c) archetype @
- d) execution

Maven

Q 1 - What of the following is true about POM?

A - It is fundamental Unit of Work in Maven.

B - It is an XML file.

C - Both of the above. @

D - None of the above.

Q 2 - Which of the following is true about 'site' Maven life cycle?

A - It cleans up artifacts created by prior builds.

B - This is used to build the application.

C - This generates site documentation for the project. @

D - None of the above

Q 3 - Which of the following phase in maven life cycle validates that the project is correct and all necessary information is available?

A - validate @

B - compile

C - test

D - package

Q 4 - Which of the Build Profile is defined in Maven global settings xml file (%M2_HOME%/conf/settings.xml)?

A - Per Project

B - Per User

C - Global @

D - None of the above.

Q 5 - Which of the following is true about Maven local repository?

A - Maven local repository is a folder location on your machine.

B - It gets created when you run any maven command for the first time.

C - Maven local repository keeps your project's all dependencies (library jars, plugin jars etc).

D - All of the above. @

Q 6 - Which of the following is the default value of packaging?

A - ear

B - war

C - jar @

D - pom

Q 7 - Based on the concept of a project object model (POM), Maven can manage a project's build, reporting and documentation from a central piece of information.

A - true @

B - false

Q 8 - Which of the following is correct about artifactId in Maven pom.xml?

A - This is an Id of the project.

B - This is generally name of the project.

C - Both of the above. @

Q 9 - Which of the following phase in maven life cycle performs actions required before integration tests are executed. For example, setting up the required environment?

A - process-resources

B - pre-integration-test @

C - prepare-package

D - None of the above.

1. Apache Maven is a software project management and comprehension tool.

True @

False

2. ___ can manage a project's build, reporting and documentation from a central piece of information.

Maven @

Scala

PHP

None of the following

6. Which of the following are the phases of Maven Build Lifecycle?

validate @

prepare-resources

compile
All of the above

7. Which of the following is not type of Maven Repository?

local
remote
central
dependency @

8. Which of the following command removes the target directory with all the build data before starting the build process?

mvn clean @
mvn build
mvn compile
mvn site

9. What is the use of mvn package command in Maven?

Clears the target directory into which Maven normally builds your project.

Builds the project and packages the resulting JAR file into the target directory. @

Prints out the version of Maven you are running.

All of the above

10. Which of the following command builds the project described by your Maven POM file and installs the resulting artifact (JAR) into your local Maven repository?

mvn install @
mvn verify
mvn package
None of the above

11. Which one of the following is a naming scheme in which the implicit name for a mock object is the mocked type's name prepend with "mock".

RetroNamingScheme @
CamelCaseNamingScheme
JavaReflectionImposteriser
LastWordNamingScheme

13. What is the sequence in which maven looks for the resources?

Local -> Remote - Maven Central @
Remote-> Local -> Maven Central
Remote-> Maven Central - > Local

14. Maven is used to do which of the following?

Build software development projects
Publish software development projects
Deploy software development projects
All of the above @

16. Which of the following aspects of a project can be managed using maven?

Builds
Reporting
Documentatio
All of the above @

17. Which of the following is true about maven?

Maven is written in Java.
Maven is initially released in 2004.
Maven is developed by Apache software foundation.
All of the above@

18. Maven plugins are generally used to create
jar file
ear file
war file
All of the above@

19. Which of the following is true about clean maven life cycle?
This is used to build the application
It cleans up artifacts created by prior builds @
This generates site documentation for the project.
All of the above

AWS S3 bucket

1. Which of the following is a method for bidding on unused EC2 capacity based on the current spot price?
a) On-Demand Instance
b) Reserved Instances
c) Spot Instance @
d) All of the mentioned

2. Point out the wrong statement.
a) The standard instances are not suitable for standard server applications @
b) High memory instances are useful for large data throughput applications such as SQL Server databases and data caching and retrieval
c) FPS is exposed as an API that sorts transactions into packages called Quick Starts that makes it easy to implement
d) None of the mentioned

3. Which of the following instance has an hourly rate with no long-term commitment?
a) On-Demand Instance @
b) Reserved Instances
c) Spot Instance
d) All of the mentioned

5. Point out the correct statement.
a) Security can be set through passwords, Kerberos tickets, or certificates
b) Secure access to your EC2 AMIs is controlled by passwords, Kerberos, and 509 Certificates
c) Most of the system image templates that Amazon AWS offers are based on Red Hat Linux
d) All of the mentioned @

6. How many EC2 service zones or regions exist?
a) 1
b) 2
c) 3
d) 4 @

7. Amazon _____ cloud-based storage system allows you to store data objects ranging in size from 1 byte up to 5GB.

- a) S1
- b) S2
- c) S3 @
- d) S4

8. Which of the following can be done with S3 buckets through the SOAP and REST APIs?

- a) Upload new objects to a bucket and download them
- b) Create, edit, or delete existing buckets
- c) Specify where a bucket should be stored
- d) All of the mentioned @

9. Which of the following operation retrieves the newest version of the object?

- a) PUT
- b) GET @
- c) POST
- d) COPY

10. Which of the following statement is wrong about Amazon S3?

- a) Amazon S3 is highly reliable @
- b) Amazon S3 provides large quantities of reliable storage that is highly protected
- c) Amazon S3 is highly available
- d) None of the mentioned

3. _____ is the central application in the AWS portfolio.

- Amazon Simple Queue Service
- Amazon Elastic Compute Cloud @
- Amazon Simple Notification Service
- All of the above

4. Amazon Web Services falls into which of the following cloud-computing category?

- Platform as a Service
- Software as a Service
- Infrastructure as a Service @
- Back-end as a Service

5. AWS reaches customers in _____ countries.

- 137
- 182
- 190 @
- 86

7. How many buckets can you create in AWS by default?

- 100 buckets @
- 200 buckets
- 110buckets
- 125 buckets

8. What are the different types of instances?

- General purpose
- Computer Optimized
- Storage Optimized

All of the above @

9. What are the advantages of auto-scaling?

- Better availability
- Offers fault tolerance
- Better cost management
- All of the above @

10. The types of AMI provided by AWS are:

- Instance store backed
- EBS backed
- Both 1 & 2 @
- None of the above

11. Storage classes available with Amazon s3 are -

- Amazon S3 standard
- Amazon S3 standard-infrequent Access
- Amazon Glacier
- All of the above @

12. Amazon Web Services supports which Type II Audits ?

- SAS20
- SAS70 @
- SAS702
- None of the above

13. What are the Authentication in AWS?

- User Name/Password
- Access Key
- Access Key/ Session Token
- All of the above @

14. Which of the following is a message queue or transaction system for distributed Internet-based applications?

- Amazon Simple Notification Service
- Amazon Elastic Compute Cloud
- Amazon Simple Queue Service @
- Amazon Simple Storage System

15. Which of the following is an online backup and storage system?

- Amazon Simple Queue Service
- Amazon Elastic Compute Cloud
- Amazon Simple Notification Service
- Amazon Simple Storage System @

17. Which service performs the function that when an instance is healthy it is terminated and replaced with a new one?

- Sticky Sessions
- Fault Tolerance @
- Connection Draining
- None of the above

18. Amazon S3 is which type of storage service?

- Block
- Object @
- Simple
- Secure

19. Amazon S3 offers encryption services for
Data in Flight

Data in Motion
Data in Rest
Both 1 & 2 @

21. Amazon s3 is an example of _____.

CDN
IaaS @
PaaS
VPN

22. Which of the following statements is true about the software as a service model?

The user has control over the applications but has limited or no control over the underlying infrastructure.

The customer is provided with the basic capabilities of processing, storage, and networking.

The customer can run his or her own applications that are typically designed using tools provided by the service provider.

The customer has no knowledge or control over the underlying infrastructure and has only limited ability to control or configure application-specific settings. @

23. Which of the following is true of web services?

Web Services can convert your existing applications into Web-applications.

Web services are open standard (XML, SOAP, HTTP etc.) based Web applications

Web services interact with other web applications for the purpose of exchanging data.

All of the Above @

25. Which of the following is not an aws cloud platform service?

Analytics
Networking @
Mobile Services
Internet of Things

26. Does amazon support region based services on all services?

Yes
No @

27. Amazon Cloudformation is a _____.

Application service
Networking service
Content delivery service
Deployment and management service @

28. Amazon web services is which type of cloud computing distribution model?

Platform as a Service @
Software as a Service
Infrastructure as a Service
None of above

29. Objects in s3 can be delivered through amazon cloudfront.

True @
False

30. File and storage services falls into which of the following basic role categories

- Application Services @
- User Services
- System Services
- None of above

31. Which of the following statements is true of cloud-based hosting?
it gives little visibility over the security being used to protect data.

@

- It gives greater control over physical location of the data
- It makes scaling up to meet the demands of increased traffic difficult
- None of the above

32. Which of the following statements is not true about cloud computing?
Cloud computing typically decreases your operating expenses.

IaaS, PaaS, and SaaS are examples of cloud computing service models.

Cloud computing resources are usually limited to specific geographic regions. @

Three cloud computing deployment models are public cloud, private cloud, and hybrid cloud

Mongodb

1. The MongoDB is written in language.

- C++
- Javascript
- C
- All of the above @

2. Which of the following is wrong statement -

MongoDB supports search by field, range queries, regular expression searches

MongoDB can store the business subject in the minimal number of documents

- Secondary indices is not available in MongoDB @
- All of the above

3. In which year the MongoDB was Initial release?

- 2008
- 2009 @
- 2010
- 2011

4. A collection and a document in MongoDB is equivalent to..... concepts respectively.

- Table and Column
- Table and Row @
- Column and Row
- Database and Table

5. in how much time the MongoDB writes are written to the journal?

- 100 s
- 60 s
- 1 s
- 100 ms @

6. Does MongoDB supports query joins between collections ?

Yes

No @

7. what is MongoDB?

data growth

document database @

adminCommand

Combine objects

8. The concatenation of the collection name and database name is called a

-

Namespace @

MongoDB

sharding

replica

10. Which statements is correct about mongoose in MongoDB ?

it is Java library to connect with MongoDB

It is used for modeling your application data in node.js @

It is Python library to connect with MongoDB

It is a PHP library to connect with MongoDB

11. Hidden member is used to support dedicated functions, such as backup or reporting.

True @

False

12. A collection in MongoDB is a group of

Databases

Related documents @

Schema

Rows

13. Which is not a supported index type in MongoDB?

TTL Index

Neospatial @

Unique

None of These

14. Which of the following is correct option ?

MongoDB uses XML more in comparison with JSON

MongoDB is column oriented data store

MongoDB is a NoSQL database @

None of the above

16. In which format MongoDB represents document structure?

JSON

.txt

.Docx

None of these

20. Which function should be used to access the specific parts of a collection that have been made available to the client?

meteor.write()

meteor.publish()

meteor.read()

meteor.subscribe() @

24. After starting the mongo shell, your session will use the _____ database by default.

Test @
mongo
primary
master

25. _id is a _____ bytes hexadecimal number which assures the uniqueness of every document.

12 @
13
14
None of these

27. Replica sets use elections to determine which set member will become primary based on:

Proximity, Member Priority, Vote and Uptime. (in this order)
Member Priority, Uptime, Proximity and Vote. (in this order) @
Member Priority, Vote, Uptime and Proximity. (in this order)
I don't know, but if the DB goes down, I'll blame to infrastructure team

30. _____ sorting is not supported by MongoDB.

collection
collation @
heap
none of the mentioned

31. The application, that communicates with application MongoDB by way of a client library, is called _____ .

Parent
Driver @
Rank
None of the above

33. Point out the wrong statement :

Non Relational databases require that schemas be defined before you can add data @
NoSQL databases are built to allow the insertion of data without a predefined schema
NewSQL databases are built to allow the insertion of data without a predefined schema
all

36. Here are _____ types of read requests that a coordinator can send to a replica

3 @
2
4

1

37. In aggregation pipeline, the _____ pipeline stage provides access to MongoDB queries.

\$catch
\$match @
\$batch
All

38. MongoDB has been adopted as _____ software by a number of major websites and services

backend @
frontend
both
none

39. Hidden member is used to support dedicated functions, such as backup or reporting.

True @
False

41. Which one of the following is equivalent in MongoDB select* from employee order by salary desc;?

db.employee.find.sort({"salary":1})
db.employee.sort ({"salary":-1})
db.employee.find.sort ({"salary":-1} @
db.employee.sort({"salary":1})

42. MongoDB process collection of documents using _____ operations

Hbase
Hive
Map-reduce @
none

47. How many byte counter in BSON is starting with a random value ?

4
2
3 @
None of the above

Kafka

1. Each kafka partition has one server which acts as the _____

A. leaders @
B. followers
C. staters
D. All of the mentioned

2. Which are the elements of Kafka?

A. Topic B. Producer C. Consumer D. All of these @

3. What are consumers or users?
 - A. If all consumer instances have the same consumer set, then this works like a conventional queue adjusting load over the consumers
 - B. If all customer instances have dissimilar consumer groups, then this works like a publish-subscribe and all messages are transmitted to all the consumers
 - C. Both A and B @
 - D. None
4. What is the benefits of Apache Kafka over the traditional technique?
 - A. Fast
 - B. Scalable
 - C. Durable
 - D. All of the above @
5. Kafka maintains feeds of messages in categories called
 - A. Topics @
 - B. Chunks
 - C. domains
 - D. messages
6. Kafka only provides a _____ order over messages within a partition
 - A. partial
 - B. Total @
 - C. 30%
 - D. None of the mentioned
7. Preferred Leader Election is enabled by default. Typically, a leader is restored within 5 minutes of coming back online. Which property can be set to minimize the chance of data loss during the switching back?
 - A. Kafka.request.required.acks property on the Producer to 1
 - B. Kafka.request.required.acks property on the Producer to 10
 - C. Kafka.request.required.acks property on the Producer to NIL @
 - D. Kafka.request.required.acks property on the Producer to -1
8. What exactly Kafka key capabilities?
 - A. Publish and subscribe to streams of records, similar to a message queue or enterprise messaging system
 - B. Store streams of records in a fault-tolerant durable way
 - C. Process streams of records as they occur
 - D. All of these @
9. Which components are used for Stream Flow of Data?
 - A. Bolt
 - B. Spout
 - C. Reliable
 - D. All of these @

 REST API

1. What does REST in REST API stand for?
 - A. Representational State Tool
 - B. Reference State Tool
 - C. Representational State Transfer @
 - D. Reference State Transfer
2. Which one of the following is not a component of REST API request/response?
 - A. request URI
 - B. request message header
 - C. request message body
 - D. None of these @
3. Which one of the following is not a part of request URI?

- A. GET @
- B. URI scheme
- C. Resource path
- D. None of these

4. Which request URI component is optional?

- A. URI host
- B. URI scheme
- C. Query string @
- D. Resource path

5. Which request URI component of REST API gives domain name or IP address of the server where REST service endpoint is hosted?

- A. URI scheme
- B. URI host @
- C. Resource path
- D. Query string

6. Which HTTP method is supported by Azure REST API?

- A. GET
- B. POST
- C. PUT
- D. All of these @

7. Which component is used for specifying the protocol used for transmitting the request?

- A. URI scheme @
- B. URI host
- C. Resource path
- D. GET

8. The type of operation requested is determined by:

- A. HTTP status code
- B. HTTP method @
- C. Resource path
- D. Query string

9. Which REST Operation Group lists the operations for API Management provider?

- A. API Management operations @
- B. API Management service
- C. API operation
- D. API schema

10. Choose the correct option with reference to REST API.

- A. There is no default media type for both requests and responses.
- B. The default media type for requests and responses is application/json. @
- C. The default media type for requests is application/json while there is no default media type for responses.

D. The default media type for responses is application/json while there is no default media type for requests.

Who is credited with the invention of REST?

Kohsuke Kawaguchi
James Gosling
Roy Fielding @
Linus Torvalds

Which of the following is not an HTTP method?

CREATE @
POST
PUT
OPTION

Which of the following best describes REST?

REST is a web service standard
REST is a cloud-native API framework
REST is a microservices-based protocol
REST is an architectural style @
The insistence that RESTful APIs have URLs that identify resources in a consistent and predictable manner is known as:

The RESTful naming convention
The uniform interface constraint @
The RESTful consistency constraint
The RESTful pattern matching convention

How would you configure a RESTful URL parameter that supports a search for a book based on its ID?

GET /{id}/books/
GET /books/{id} @
GET /book?id={id}
GET /books?id={id}

Which option is not a RESTful API constraint?

Code on demand
The use of a client-server model
A stateless request-response cycle
Service orchestration @

The ability to invoke a RESTful method multiple times without changing the state of the server on subsequent invocations is known as:

Idempotence @
Immutability
Statefulness
Uniformity

To create a new resource with a predefined resource URL, you should use which of the following HTTP methods?

CREATE

POST
PUT @
OPTION

What must be enabled in order for a RESTful web service to receive invocations from different domains, subdomains or ports?

SSL
Headers
Cache control
CORS @

Which header should be configured to tell the server XML is preferred over JSON?

Accept @
Content-Type
User-Agent
GET

Which year was the dissertation that described how to build RESTful APIs delivered?

1990
2000 @
2010
2020

Q 2 - Which of the following depicts best practice, Linkability for resource representation in REST?

A - Both Server and Client should be able to understand and utilize the representation format of the resource.

B - Format should be able to represent a resource completely. For example, a resource can contain another resource. Format should be able to represent simple as well as complex structures of resources.

C - A resource can have a linkage to another resource, a format should be able to handles such situations. @

D - None of the above.

Q 4 - Which of the following HTTP method should be used to get status of method availability in RESTful web service?

A - GET
B - HEAD @
C - PUT
D - OPTIONS

Q 5 - Which of the following directive of Cache Control Header of HTTP response provides indication to server to revalidate resource if max-age has passed?

A - must-revalidate @

B - Private

C - no-cache/no-store

D - max-age

Q 6 - Which of the following HTTP Status code means NOT MODIFIED, used to reduce network bandwidth usage in case of conditional GET requests?

A - 200

B - 201

C - 204

D - 304 @

Q 7 - Which of the following HTTP Status code means INTERNAL SERVER ERROR, states that server has thrown some exception while executing the method?

A - 500 @

B - 401

C - 404

D - 409

Q 8 - Which of the following annotation of JAX RS API assigns a default value to a parameter passed to method?

A - @CookieParam

B - @FormParam

C - @DefaultValue @

D - @Context

Q 9 - A RESTful web service usually defines a URI, Uniform Resource Identifier a service, provides resource representation such as JSON and set of HTTP Methods.

A - false

B - true @#

1. What are the communication channels available for a web service?

A. HTTP / POST B. HTTP / GET C. SOAP

D. All of these @

2. Exposing a stand-alone SOAP endpoint using the

A. SimpleJaxWsServiceExporter

B. JAX-WS

C. All of the mentioned @

D. None of the mentioned

3. What are the different types of assertions used in Soapui?

- A. Contains & Not Contains
- B. XPath match
- C. XQuery match
- D. All of the above mentioned @

4. What we can do with the SoapUI?

- A. SoapUI offers us to perform automation testing which includes functional testing, load testing and Data Driven testing
- B. It also provides in build reporting tool and export test results log provision
- C. We assert our services using various types of assertions
- D. All of the above @

6. What type of data sources can be used in SoapUI?

- A. Excel Files
- B. CSV Files
- C. ODBC Sources
- D. All of the above @

7. What are the major types of assertions available in SoapUI?

- A. Simple contains
- B. Schema compliance
- C. Simple not contain
- D. All of these @

8. What are the levels used by SOAP UI to structure functional tests?

- A. TestSuite
- B. TestCase
- C. TestSteps
- D. All of the above @

10. What are the properties available in SoapUI?

- A. Custom Properties or Project Level Properties
- B. Test Suite Level Properties
- C. Test case Level Properties
- D. All of the above @

1. A web service contract is described using :

- a) Web Services Description Language @
- b) Web Services Description
- c) All of the mentioned
- d) None of the mentioned

2. There are two approaches to developing a web service, depending on whether you define the contract first or last.

- a) True @
- b) False

3. In contrast, the contract-first approach encourages you to think of the service contract first in terms of :-

- a) XML
- b) XML Schema(.xsd)
- c) WSDL
- d) All of the mentioned @

4. In some cases, it's also hard to map an object to XML (e.g., an object graph with cyclic references) because there's actually an impedance mismatch between an object model and an XML model.

- a) True @
- b) False

5. Service exporters that can export a bean as a remote service based on the :-

- a) RMI
- b) Hessian
- c) Burlap
- d) All of the mentioned @

6. Spring comes with a service exporter that can export a bean as a SOAP web service.

- a) True
- b) False @

7. The standard for deploying web services on the Java EE platform as of Java EE 1.4:-

- a) JAX-RPC @
- b) JAX
- c) RPC
- d) None of the mentioned

8. To send objects across the wire, beans need to be encoded using the Java Architecture for XML Binding (JAXB).

- a) True @
- b) False

9. If you are deploying into a Java EE 5 (or better) container, you may simply create a bean that is annotated with:-

- a) javax.jws.WebService
- b) javax.jws.WebServiceProvider
- c) all of the mentioned @
- d) none of the mentioned

10. If you are using the JAX-RS Reference Implementation, this intermediary step will involve a tool called wsgen.

- a) True @
- b) False

13. Tomcat doesn't support JAX-WS by itself.

- a) True @
- b) False

14. CXF represents the consolidation of the Celtix and XFire projects, which each had useful SOAP support.

- a) True @
- b) False

15. Factory to use our Spring bean as the implementation:-

- a) javaxws:end
- b) javaxws:endpoint @
- c) all of the mentioned
- d) none of the mentioned

1. The concept of an endpoint in web services is much like that of a controller in web applications.

- a) True @
- b) False

2. Spring-WS provides various abstract endpoint classes for you to process the request.

- a) org.springframework.ws.server.endpoint @
- b) org.springframework.ws.server
- c) org.springframework.*
- d) none of the mentioned

3. Endpoint Classes for DOM:-

- a) AbstractDomPayloadEndpoint @
- b) AbstractJDomPayloadEndpoint
- c) AbstractDom4jPayloadEndpoint
- d) AbstractXomPayloadEndpoint

4. Endpoint Classes for JDOM:-

- a) AbstractDomPayloadEndpoint
- b) AbstractJDomPayloadEndpoint @
- c) AbstractDom4jPayloadEndpoint
- d) AbstractXomPayloadEndpoint

5. Endpoint Classes for dom4j:-

- a) AbstractDomPayloadEndpoint
- b) AbstractJDomPayloadEndpoint
- c) AbstractDom4jPayloadEndpoint @
- d) AbstractXomPayloadEndpoint

***** JSON *****

Which of the following isn't a JSON type?

- A. String
- B. Object
- C. Date @
- D. Array

Which is the file extension of JSON?

- A. .jsn
- B. .json @
- C. .jn
- D. .js

Is whitespace matter in JSON?

- A. No, it will be stripped out.
- B. Yes, both inside and outside of strings
- C. Yes, only within strings @
- D. Yes, only outside of strings

Who is the creator of JSON ?

- A. Sergey Brin
- B. Douglas Crockford @
- C. Liam Crockford
- D. None of these

What is the purpose of method JSON.parse()?

- A. Parses a string from JSON to JSON2

- B.Parses a string to integer
- C.Parses a string to JSON @
- D.Parses integer to string

Which of the following is the fastest JavaScript parser?

- A. Acron @
- B.JSLint
- C.Esprima
- D.Traceur

which of the following isn't create the object?

- A. Object literals
- B.Constructors
- C.Object.create @
- D.Object Construct

What is the full form of JSON?

- A. JavaScripts Object Notification.
- B.JavaScript Object Notation. @
- C.None of these

What is JSON data?

- A. Exchanging data @
- B.Non-exchanging data
- C.Changing data
- D.None of these

How many types of json data?

- A. 6 @
- B.4
- C.7
- D.3

Is empty JSON valid?

- A. Yes @
- B.No

Is JSON a data format?

- A. True @
- B.False

What is JSON return?

- A. json. loads() takes in a string and returns a json object. json. dumps() takes in a json object and returns a string. @
- B.json. loads() takes in a json object and returns a json object. json. dumps() takes in a json object and returns a string.
- C.json. loads() takes in a string and returns a json object. json. dumps() takes in a string and returns a string
- D.None of these

Which is correct format of writting JSON name/value pair

- A. "name" : "value" @
- B.name = 'value'
- C.name = "value"
- D.name : value'

What is correct MIME type for JSON ?

- A. json/mime @

- B.application/js
- C.application/xml
- D.none of these

How do JSON provide Internationalization?

- A. Using keys.
- B.Using Unicode. @
- C.Using lang
- D.Using datatype

What is the radix value of the parseInt() method when the string begins with 0?

- A. 6
- B.9
- C.8 @
- D.5

Which of the following is a JavaScript Compressor?

- A. UglifyJS @
- B.Esprima
- C.Compressify
- D.Acron

Which of the following is the fastest JavaScript parser?

- A. JSLint
- B.Traceu
- C.Esprima
- D.Acron @

What is the purpose of the radix parameter in the parseInt() method?

- A. Parsing mode
- B.Numeral system not to be used
- C.Conversion mode
- D.Numeral system to be used @

Which one of these is supported as a JSON Value type?

- A. Undefined
- B.Infiniti
- C.NaN
- D.Null @

What is a JSONStringer used for?

- A. It is used to quickly create JSON text. @
- B.It is used to create number strings in JSON.
- C.. It quickly converts JSON to Java strings
- D.It is used to create JSON ordered pairs.

Which of the following code won't throw an error?

- A. JSON.parse();
- B.JSON.parse({})
- C.JSON.parse(null); @
- D.JSON.parse("");

The order of JSON objects is always preserved.

- A. False @
- B.True

Which of the following are the features of json programming?

- A. JSON is lightweight
- B. JSON is easy to read and write
- C. JSON is a text-based, human-readable data exchange format
- D. All of the Above @

*****RESTFUL API*****

1 - Which of the following depicts best practice, Completeness for resource representation in REST?

A - Both Server and Client should be able to understand and utilize the representation format of the resource.

B - Format should be able to represent a resource completely. For example, a resource can contain another resource. Format should be able to represent simple as well as complex structures of resources.
@

C - A resource can have a linkage to another resource, a format should be able to handle such situations.

D - None of the above.

2. Which of the following is correct about messaging in RESTful web services?

A - A client sends a message in form of a HTTP Request and server responds in form of a HTTP Response.

B - These messages contain message data and metadata i.e. information about message itself.

C - Both of the above. @

D - None of the above.

*****XQUERY*****

1. Which of the following function returns an instance of the XML data type?

- a) query() @
- b) value()
- c) nodes()
- d) none of the Mentioned

2. SQL Server provides how many Xquery methods?

- a) 3
- b) 4
- c) 5 @
- d) 6

3. Point out the correct statement.

- a) XQuery statements are case sensitive and xml is case sensitive @
- b) XQuery statements are case insensitive and xml is case insensitive
- c) XQuery statements are case sensitive and xml is case insensitive
- d) XQuery statements are case insensitive since xml is case sensitive

4. What is every identifier in an XQuery called?

- a) Name
- b) QName @
- c) Qidt
- d) Qnam

5. Every database you create has which collection by default?

- a) sys @
- b) sym
- c) syx
- d) none of the Mentioned

6. Different types of errors raised during Xquery operation are

-
- a) Static
 - b) Dynamic
 - c) Type
 - d) All of the mentioned @

7. Functions on numerical values in Xquery are _____

- a) ceiling @
- b) concat
- c) contains
- d) number

8. Atomization is process of extracting _____ value of an item.

- a) XML value
- b) Non numerical value
- c) Typed @
- d) None of the mentioned

9. With XML DML, which of the operations can be performed on nodes?

- a) Insert nodes
- b) Change nodes
- c) Delete nodes @
- d) None of the mentioned

10. Why do we use exist methods in Xquery?

- a) To determine if the XML data contains a certain node @
- b) To examine the XML and return back a scalar value
- c) To Shred the XML nodes of the XML data into relational columns
- d) To search inside xml data types

1. What is every identifier in an XQuery called?

- A. Name
- B. QName @
- C. Qidt
- D. Qnam

XQuery 1.0 has W3C recommendation since

- A. 23 Jan 2007 @
- B. 24 Jan 2007
- C. 22 Jan 2007
- D. 23 Jan 2007 @

Different types of errors raised during Xquery operation are

- A. StaticB. DynamicC. Type

D. All of the mentioned @

Which is wrong in XQuery?

- A. Used for transforming XML data into XHTML
- B. Used for search web documents
- C. Used to generate tables for XSLT @
- D. None of these

5. function used to open file in xml data.

- A. file()
- B. fopen()
- C. doc() @
- D. None

. Atomization is process of extracting _____ value of an item

- A. XML value
- B. Non numerical value
- C. Typed @
- D. None of the mentioned

7. Give syntax to use doc() function.

- A. doc('filename.xml')
- B. doc("filename.xml")
- C. doc("filename.xml") @
- D. All of these

8. What is the use of XQuery language?

- A. To retrieve both hierarchical and tabular data
- B. To query tree and graphical structures
- C. To build web pages
- D. All of these @

Give the no of node types that are present in XQuery.

- A. 7 @
- B. 6
- C. 8
- D. 9

Which types of problems can be solved by XQuery?

- A. XQuery is used to retrieve information in a web serviceB. It is used to generate summary reportC. It is used to transform data from XML to XHTML

D. All of these @

1. What Does XML Stand For?

- EXtra Modern Link
- EXtensible Markup Language @
- Example Markup Language
- X-Markup Language

2. Which Statement Is True?

- All XML Elements Must Have A Closing Tag @
- All XML Documents Must Have A DTD
- All XML Elements Must Be Lower Case
- All The Statements Are True

3. Which Of The Following Programs Support XML Or XML Applications?

Netscape 4.7
Internet Explorer 5.5
RealPlayer
Both A & B @

4. Which Of The Following Strings Are A Correct XML Name?

#myElement
My Element
_myElement @
None Of The Above

5. Which Allows Hyperlinks To Point To Specific Parts (fragments) Of XML Documents?

XPath
Xpointer @
XSLT
XLink

6. Which Is Not A XML Function?

Transport Information
Style Information @
Store Information
Structure Information

7. Which Is Not A W3C-recommended Specification?

SAX @
DOM
Both A & B
None Of The Above

8. Which Internet Language Is Used For Describing Available Web Services In XML?

RSS
RDF
WSDL @
OWL

9. In XML Document Comments Are Given As?

<!-- --!>
<!-- ? @
</-- -->
<?-- ?

10. XML Is Designed To Store Data And ____.

Design
Verify
Both A & B
Transport @

12. In Schema Data Type Can Be Specified Using

Type
DataType
Dt:type @
Data:type

13. Which Is/are The Example(s) Of XML-based Multimedia Language?

SMIL
MULTIMEDIA DESCRIPTION LANGUAGE

HTML+TIME @
Both A & B

14. Which Vocabulary Provides Supports To Build Links Into XML?

XLink @
XPointer
XSL
XHTML

15. Which Of The Following Is Not An Online XML Validator?

Tidy
Expat @
XML.com's
W3C Validation Service

16. Which Language Is Case Sensitive?

XML @
HTML
Both A & B
None Of The Above

17. The XSL formatting object which formats the data in a table -

table-body
table @
table-content
title

18. XSL has " block container" for formating the document to -

Create a display block to format the paragraphes
Create a display block to format the titles
Create a block level reference area @
Create a display block to format the titles

19. Which of the following is a valid XSLT iteration command -

for-all
for-each @
for
in-turn

. What is a NCName?

A Non-Colonized Name @
A Non-Common Name
A Non-Conforming Name
None of the above

21. Is it easier to process XML than HTML?

No
Yes @

22. Well formed XML document means

it contain an element
it contains a root element
it contains one or more elements
must contain one or more elements and root element must contain all
other elements @

23. XML uses the features of

VML
SGML(Standard Generalized Markup Language) @

HTML
XHTML

24. What does DTD stand for?

Do the Dance
Direct Type Definition
Document Type Definition @
Dynamic Type Definition

25. The XML DOM object is

Entity
Comment Data
Entity Reference @
Comment Reference

26. An xml database supports the storage and management of _____ xml data.

structured
semistructured @
multistructured
None of the above

3. XQuery for XML is like SQL for

Oracle
database @
tables
PL/SQL

4. XQuery is a language for finding and extracting the elements and attributes from

XML documents @
tables
database
files

5. Which of these share the same data model and supports the same functions and operators ?

XQuery 1.1 and XPath 2.0
XQuery 1.0 and XPath 1.0
XQuery 1.0.1 and XPath 2.0.1
XQuery 1.0 and XPath 2.0 @

6. For which of theses the XQuery can't be used ?

Generate summary reports
Search Web documents for relevant information
Transform XML data to XHTML
None of these @

7. XQuery 1.0 is not yet ____ Recommendation.

Microsoft's
W3C @
IBM
Intel

8. Which function is basically used to open the file.

open()
fopen()
doc() @
fileOpen()

9. XQuery uses _____ to limit the extracted data from the XML documents.

limit
predicates @
from-to
None of these

10. What is FLWOR ?

Foreach, Let, Where as, Object, Record
For, Let, Where as, Object, Record
For, Let, Where, Order by, Return @
None of these

11. What is the right syntax of the doc() function ?

doc('bookdetails.xml')
doc("bookdetails.xml") @
doc("bookdetails.xml");
doc(bookdetails.xml);

12. In XQuery, how many types of node are present ?

5
6
7 @
8

13. Which of these are not the XQuery type of nodes ?

attribute
element
namespace
number @

14. The ____ of the tree is called the document node or root node.

leaf
root @
child
middle level nodes

15. Which are known as Atomic values ?

root node
leaf nodes
nodes with no parent or children @
parent nodes

16. Each element and attribute has one parent only.

True @
False
Not always true
None of these

17. _____ nodes may have zero, one or more than one children.

Child
Parent
Leaf
Element @

18. Nodes that have the same parent is called

childs
siblings @
elements
none of these

19. A node's children, children's children, etc. is called

descendants @
ancestors
siblings
none of these

20. XQuery is

case-insensitive
case-sensitive @
not always case-sensitive
not always case-insensitive

Web Logic

3. Which EJB modules can run on a weblogic server?

entity beans @
Resource beans
Adapter beans
All of the above

1. Which of the following tools can be used for developing WebLogic Server applications?

IDE
Third party software
Both 1 and 2 @
Neither 1 or 2

2. What is the WebLogic workshop used for?

Design web services @
Create and edit deployment descriptors

Deployment of applications
Both 2 and 3

Does WebLogic support multithreading applications?

Options

- yes
- No

CORRECT ANSWER : yes

It is not necessary to have access to a WebLogic Server distribution to compile your programs

Options

- True
- False

CORRECT ANSWER : False

Which of the following are WebLogic Server deployment tools?

Options

- weblogic.Deployer
- wldeploy
- Administration Console
- All of the above

CORRECT ANSWER : All of the above

Can the WebLogic builder be used to deploy WebLogic Server applications to single servers?

Options

- Yes
- No

CORRECT ANSWER : Yes

Which web application modules can run on a weblogic server?

Options

- HTML Pages
- Servlets
- JSP's
- All of the above

CORRECT ANSWER : All of the above

How many types of containers does the weblogic server have?

Options

- 1
- 2
- 3
- 4

CORRECT ANSWER : 2

Which file contains the configuration information about the entire WebLogic Server domain?

Options

- Config.html
- Config.JAR

- Config.xml
- Config.txt

CORRECT ANSWER : Config.xml

What is the WebLogic workshop used for?

Options

- Design web services
- Create and edit deployment descriptors
- Deployment of applications
- Both 2 and 3

CORRECT ANSWER : Design web services

WebLogic provides various options for deploying applications

Options

- True
- False

CORRECT ANSWER : True

How does weblogic provide performance and scalability of applications in production?

Options

- Caching
- Control data flow
- Both 1 and 2
- Security for data

CORRECT ANSWER : Both 1 and 2

Which tier does weblogic run on?

Options

- Upper tier
- Lower tier
- Both 1 and 2
- Middle tier

CORRECT ANSWER : Middle tier

What platform is weblogic based on?

Options

- J2ME
- J2EE
- J2SE
- None of the above

CORRECT ANSWER : J2EE

WebLogic is _____ application server

Options

- Oracle
- IBM
- Intel
- Microsoft

CORRECT ANSWER : Oracle

1. Requirement demands that an incoming request from a portfolio manager has to have a higher priority compared to other users of the application.

As an administrator, which one of the following approaches would you adopt?

- A. Use Work Manager with the execute thread model to set up rules to associate a priority to the user.
- B. Use Work Manager fair-share-request-class to associate a priority to the user.
- C. Use Work Manager response-time-request-class to associate a priority to the user.
- D. Use Work Manager context-request-class to associate a priority to the user.

Answer: D

2. What are the supported installation modes for WebLogic Server?

- A. Graphical mode, console mode and secure mode
- B. Graphical mode, console mode and silent mode
- C. Script mode, console mode and silent mode
- D. Script mode, console mode and secure mode
- E. Script mode, network mode and silent mode

Answer: B

3. Scenario : While you are setting up a WebLogic Server domain for a fulfillment service application you have the following requirements: The Fulfillment application should be scalable and highly available; different users will use the application using a different DNS name. This application is also exposed to some business partners using other protocols in addition to HTTP and this site also needs to be configured for transport level security. Different certificates should be installed in the server for different clients (using different DNS names). Even the site should withstand hardware NIC failures too. To avoid large buffer attacks from different HTTP clients accessing the various Fulfillment web applications:

- A. Change the "Stop Buffer Attack" attribute in weblogic.xml to true.
- B. Configure "Max Post Size" to limit the maximum post size the server can accept.
- C. Configure virtual hosts to route the large buffer attacks to a dead request channel.
- D. Enable the "Tunneling" attribute for the server.

Answer: B

4. Scenario : A multi-cluster architecture, with two geographically separated clusters (WAN-1 and WAN-2), is being created. It will provide cross-cluster WAN HTTP session failover. The WAN-1 cluster is located in London and the WAN-2 cluster is located in New York and is connected via a slow interconnect. The client request passes through a Global load balancer which load balances the request to local load balancers which eventually pass the load to WebLogic Server instances in the cluster. Four WebLogic Server instances will be running on each cluster distributed on two physical machines, two WebLogic instances per physical machine. A database is configured on each cluster for HTTP Session state failover between the clusters. What happens if all the servers hosted in the London cluster crashes in the middle of an http session update?

- A. The session will be regenerated on the New York cluster without any session data loss, and a new primary server will be created using the secondary session data.
- B. The session will be regenerated on the New York cluster but there could be a loss of session data; a new primary server will be created using the last known secondary session data.

- C. The session will not be regenerated on any cluster; the user will be redirected to the New York cluster to create a new session.
- D. The session will be regenerated if the primary server on the London cluster is restarted.
- E. Both b and d

Answer: B

5. What is used to control the number of requests that are processed by the monitors in a diagnostic module?
- A. Queuing
 - B. Throttling
 - C. Dyes
 - D. Instrumentation

Answer: B

6. A single application needs to be deployed to multiple differing WebLogic server environments without modifying the existing deployment descriptors. Which one of the following would help in reconfiguring the application to be suitable for multiple environments?
- A. Multiple J2EE deployment descriptors
 - B. Multiple WebLogic-specific deployment descriptors
 - C. Multiple deployment plans
 - D. Administration console

Answer: C

7. A domain configuration has been transferred from an old development server to a new machine. It had been hoped that the domain files could just be transferred from one machine to another, but it is now understood that certain parameters are dependent on the local configuration. The Listen Address for the admin server is not valid for the new machine and needs to be changed before the admin server can be started. You start WLST in off-line mode to rectify the problem. Which WLST command will give you access to the current configuration, so that you can make the change?
- A. connect
 - B. loadDomain
 - C. readDomain
 - D. loadProperties

Answer: C

8. Scenario : While you are setting up a WebLogic Server domain for a fulfillment service application you have the following requirements: The Fulfillment application should be scalable and highly available; different users will use the application using a different DNS name. This application is also exposed to some business partners using other protocols in addition to HTTP and this site also needs to be configured for transport level security. Different certificates should be installed in the server for different clients (using different DNS names). Even the site should withstand hardware NIC failures too. When retailers access their website (using DNS name), automatically they should be taken to the Stock Control Management web application within the Fulfillment Service. This can be achieved by:
- A. Specifying the Name of the Application to be empty when deploying Stock Control Management web application
 - B. Specifying a lower number as the deployment order while deploying Stock Control Management web application
 - C. Setting the staging mode for Stock Control Management web application as "Staged"

D. Configuring the Stock Management Web Application as the default application for the respective virtual host

Answer: D

9. Scenario : The Stock Control Application you are going to deploy to a cluster of WebLogic Managed Servers requires a JMS destination to asynchronously deliver the messages to the back-end Warehousing Application. To distribute the messages across the cluster, you decided to configure the distributed destination. Also the Warehousing Application is a legacy application written to implement a proprietary MQ API connecting an MQ-Series server. The Stock Control Application is implemented as a web application on a WebLogic cluster delivering the message to the distributed destination. The cluster has three Managed Servers hosted on two high powered machines and one low range/powered machine. To deliver the messages from the Stock Control Application to the Warehousing Application without directly connecting to MQ-Series, configure:

- A. Store-and-forward agent to MQ-Series
- B. Messaging Bridge to MQ-Series
- C. Path service to MQ-Series
- D. WebLogic persistent stores and configuring MQ-Series to read from WebLogic persistent stores

Answer: B

10. The WebLogic Diagnostic Framework (WLDF) provides a mechanism for adding diagnostic code to Oracle WebLogic Server instances and the applications running on them. What are the three key diagnostic features provided by WLDF instrumentations?

- A. Monitors, actions, context
 - B. Actions, instrumentation, configuration
 - C. Joinpoint, pointcut, configuration
 - D. Monitors, pointcuts, locations
- Answer: A

11. In order to configure the Instrumentation, Harvester, and Watch and Notification components at the server level for the WebLogic Diagnostic Framework, what must you first create?

- A. Application module
- B. Diagnostic system module
- C. Subsystem diagnostic module
- D. WebLogic Diagnostic Framework Mbean

Answer: B

Spring Boot

Q1. How filters are used in Spring Web?

Filters are called before a request hits the DispatcherServlet. They allow for interception-style, chained processing of web requests for security, timeouts, and other purposes. @

Filters are used with a checksum algorithm that will filter invalid bytes out of a byte stream request body and allow for processing of HTTP requests from the DispatcherRequestServlet.

Filters are used with a checksum algorithm that will filter invalid bytes out of an octet stream a multipart upload and allow for chained processing of WebDispatcherServlet requests.

Filters are used to validate request parameters out of the byte stream request body and allow for processing of requests from the `DispatcherRequestServlet`.

Reference: `HandlerInterceptors` vs. `Filters` in Spring MVC. Also there is no such thing as `DispatcherRequestServlet` in Spring.

Q2. How is a resource defined in the context of a REST service?

A resource is the actual String literal that composes a URI that is accessed on a RESTful web service.

It is an abstract concept that represents a typed object, data, relationships, and a set of methods that operate on it that is accessed via a URI. @

A REST service has a pool of resources composed of allocations of memory that allow a request to be processed.

A resource for a REST service is an explicit allocation of a thread or CPU cycles to allow a request to be processed.

Q3. Which of these is a valid Advice annotation?

`@AfterError`

`@AfterReturning` @

`@AfterException`

`@AfterExecution`

Q4. What does a `ViewResolver` do?

It supports internationalization of web applications by detecting a user's locale.

It generates a view by mapping a logical view name returned by a controller method to a view technology. @

It creates a unique view determined by the user's browser type, supporting cross-browser compatibility.

It maps custom parameters to SQL views in the database, allowing for dynamic content to be created in the response.

Q5. How are Spring Data repositories implemented by Spring at runtime?

Spring automatically generated code for you based on your YAML config that defined a `MethodInterceptor` chain that intercept calls to the instance and computed SQL on the fly.

A JDK proxy instance is created, which backs the repository interface, and a `MethodInterceptor` intercepts calls to the instance and routes as required. @

The Spring JDK proxy creates a separate runtime process that acts as an intermediary between the database and the Web server, and intercepts calls to the instance and handles requests.

Spring automatically generated code for you based on your XML config files that define a `SpringMethodAutoGeneration` factory that intercepts calls to the instance and creates dynamic method that compute SQL on the fly.

Q6. What is SpEL and how is it used in Spring?

SpEL(Spring Expression Language) runs in the JVM and can act as a drop-in replacement for Groovy or other languages.

SpEL(Spring Expression Language) supports boolean and relational operators and regular expressions, and is used for querying a graph of objects at runtime. @

SpEL(Spring Expression Language) allows you to build, configure, and execute tasks such as building artifacts and downloading object dependencies.

SpEL(Spring Expression Language) natively transpiles one JVM language to another, allowing for greater flexibility.

Q7. The process of linking aspects with other objects to create an advised object is called
dynamic chaining
banding
weaving @
interleaving

Q8. How are JDK Dynamic proxies and CGLIB proxies used in Spring?

JDK Dynamic proxy can proxy only interface, so it is used if the target implements at least one interface. A CGLIB proxy can create a proxy by subclassing and is used if the target does not implement an interface.

@

Only JDK Dynamic proxies are used in the Spring Bean Lifecycle. CGLIB proxies are used only for integrating with other frameworks.

Only CGLIB proxies are used in the Spring Bean Lifecycle. JDK Dynamic proxies are used only for integrating with other frameworks.

JDK Dynamic proxy can only using an abstract class extended by a target. A CGLIB proxy can create a proxy through bytecode interweaving and is used if the target does not extend an abstract class.

Q9. Which of these is not a valid method on the JoinPoint interface?

getArgs()
getExceptions() @
getSignature()
getTarget()

Q10. In what order do the @PostConstruct annotated method, the init-method parameter method on beans and the afterPropertiesSet() method execute?

1. afterPropertiesSet() 2. init-method 3. @PostConstruct
1. @PostConstruct 2. afterPropertiesSet() 3. init-method@
1. init-method 2. afterPropertiesSet() 3. @PostConstruct

You cannot use these methods together-you must choose only one.

Q11. What is the function of the @Transactional annotation at the class level?

It's a transaction attribute configured by spring.security.transactions.xml config file that uses Spring's transaction implementation and validation code.

It's a transaction that must actively validate by the bytecode of a transaction using Spring's TransactionBytecodeValidator class. Default Transaction behavior rolls back on validation exception but commits on proper validation

It creates a proxy that implements the same interface(s) as the annotated class, allowing Spring to inject behaviors before, after, or around method calls into the object being proxied. @

It's a transaction that must be actively validated by Spring's TransactionValidator class using Spring's transaction validation code. Default Transaction behavior rolls back on validation exception.

Q12. Which is a valid example of the output from this code (ignoring logging statements) ?

```
@SpringBootApplication
public class App {
    public static void main(String args[]) {
```

```

        SpringApplication.run(App.class, args);
        System.out.println("startup");
    }
}

public class Print implements InitializingBean {
    @Override
    public void afterPropertiesSet() throws Exception {
        System.out.println("init");
    }
}

Nothing will print    @
startup init
init
startup

```

Q13. Which println statement would you remove to stop this code throwing a null pointer exception?

```

@Component
public class Test implements InitializingBean {
    @Autowired
    ApplicationContext context;
    @Autowired
    static SimpleDateFormat formatter;

    @Override
    public void afterPropertiesSet() throws Exception {
        System.out.println(context.containsBean("formatter") + " ");
        System.out.println(context.getBean("formatter").getClass());
        System.out.println(formatter.getClass());
        System.out.println(context.getClass());
    }
}

@Configuration
class TestConfig {
    @Bean
    public SimpleDateFormat formatter() {
        return new SimpleDateFormat();
    }
}

```

```

formatter.getClass()    @
context.getClass()
context.getBean("formatter").getClass()
context.containsBean("formatter")

```

Q14. What is the root interface for accessing a Spring bean container?

```

SpringInitContainer
ResourceLoader
ApplicationEventPublisher
BeanFactory    @

```

Q15. Which annotation can be used within Spring Security to apply method level security?

```

@Secured    @
@RequiresRole
@RestrictedTo
@SecurePath

```

Q16. What is the result of calling the map controller method using the HTTP request GET localhost:8080/map?foo=foo&bar=bar ?

```
@RestController
public class SampleController {

    @RequestMapping("/map")
    public String map(@RequestParam("bar") String foo,
@RequestParam("foo") String bar) {
        return bar + foo;
    }
}
```

An InvalidParameterNameMappingException is thrown at runtime.

barfoo

foobar @

A status code of 400 Bad Request is returned.

Q17. What is the purpose of the @Lazy annotation and why would you use it?

It prevents a bean from being created and injected until you run a specific CLI command. It reduces complexity in the application.

It can be applied to a bean so that the bean is not persisted in the database. It reduces the number of database operations.

It can be applied to a bean so that the bean is not created and injected until it is needed. It can help speed up startup time for your application. @

It prevents a bean from being created and injected until it receives a HTTP request to a callback hook. It reduces disk footprint.

Q18. What is dependency injection?

a method by which objects define dependencies they need as abstractions that allows the framework to instantiate and configure them in a central location at runtime. @

a paradigm where dependent code is injected into the bytecode of a Java application on a remote server.

a way of injecting remote dependencies into a pre-packaged JAR file from the file system.

a way of injecting remote dependencies into a pre-packaged WAR file from the file system.

Q19. What is a RESTful web service?

Reactive Enterprise Status Transfer is a web service comprising a set of guidelines and technical constraints for web services that monitor and alert of a set of mission-critical resources.

Representational State Transfer an architectural style for creating web services that includes client-server architecture, statelessness, cacheability, a layered system, and a uniform interface. @

Redundant Enumerated State Transfer is a web service that provides redundancy in the case of failure and outlines technical constraints for web services that have access to resources.

Reactive Enterprise State Transfer is a web service comprising a set of guidelines and technical constraints for web services y that have access to resources and are async in nature.

Q20. What happens when a class is annotated with the @Controller annotation?

A controller bean definition is defined in the servlet's `WebApplicationContext`. The class is marked as a web component, and you can map requests to controller methods. @

A controller bean definition is defined in the Web Context, and `WebServlet` is marked as a component that reads mapped controller requests from an XML config file.

A controller bean definition is defined in the Tomcat Context, and the `ControllerServlet` is marked as a web component that reads mapped controller requests from a YAML config file.

A controller bean definition is defined in the Servlet Context, and the `ControllerServlet` is marked as a component that reads mapped controller requests from an XML config file.

Q21. Which property can be used to change the port of a Spring application?

Port
spring.port
spring.settings.port
server.port @

Q22. What is the purpose of the `@ResponseBody` annotation?

to validate the char array contained in a response to ensure that it is a valid character encoding

to generate a local byte stream from the body of a response that allows a request to be scanned for security risks

to indicate whether a handler method return value should be bound to the web response body in servlet environments @

to ensure a `ThreadLocal` byte stream that allows a response to be encoded for reading directly into a socket stream

Q23. How are mocking frameworks such as Mockito used with Spring?

Mockito will spin up a mock web service hosted in a Docker container that can respond to HTTP requests to mock out third-party APIs.

Mockito can use annotations or factory methods to create mock objects that may be injected into tests in place of dependencies. The behavior of mocks can be explicitly configured. @

Mockito will create mock users to repeatedly perform requests against your Spring application to test your app's ability to take load.

Mockito will spin up a mock web service hosted in a Docker container that can respond to RPC calls to mock out remote resources.

Q24. What is the name of the central servlet that dispatches requests to controllers?

`DispatchingDelegatorServlet`
`DispatcherServlet` @
Router
`FrontControllerServlet`

Q25. What is the purpose of the Spring IoC (Inversion of Control) container?

It instantiates and configures objects, supplied at runtime, to classes that define them as a dependency. @

It allows the front-end code to manage the `ResponseBody` objects provided by a back-end REST API.

It allows a database to define business objects via a shared schema at compile time.

It facilitates a remote server to configure a local application.

Q26. What is component scanning?

feature that scans packages for classes with specific annotations and, when found, creates their bean definitions within the IoC container

@ paradigm where bytecode is actively scanned to identify additional optimizations to inject into components in the application context

a method by which cloud repositories are scanned to identify components for injection into an IoC container

a method by which binary data in a database is searched to identify components for injection into the IoC container

Q27. What does @SpringBootApplication do?

This annotation takes the String literal passed into the annotation as a parameter and automatically generates all the code for your application as per the passed in template parameter.

This compound annotation applies the @Bootable, @Springify, and @StandardConfig annotations that launch a CLI tool after launching the Spring Boot WAR file that will guide you through a series of prompts to set up your app.

@ This annotation scans the provided spring-boot-config-construction.yaml file in your root directory and automatically generates all the code for your application as defined in the YAML file.

Q28. How does Spring Data facilitate queries against a datastore?

Queries are explicitly coded in repository implementations using the Spring Data CriteriaBuilder.

Query metadata is stored in the underlying datastore and retrieved at runtime per repository.

Queries are derived from the signatures of methods on a Spring Data repository that contain keywords in their name for constructing the query logic.

@ A spring-data-queries.xml file contains queries within entity tags that specify the query logic for each repository.

Q29. How does Spring generate bean names for classes annotated with

@Component that do not specify a name?

It uses the short name of the class with the first letter in lowercase.

@

It uses the short name of the class.

It uses the short name of the class in uppercase.

It uses the canonical name of the class in lowercase.

Q30. What is the delegating filter proxy?

It's the servlet filter chain proxy that handles all requests to the route defined in spring.security.xml. All calls to the filter proxy are forwarded to the ErrorDispatcherServlet.

It's the servlet filter chain that handles requests to the route defined in spring.security.factories. All calls to the filter proxy y are forwarded to the ErrorServlet.

It's the servlet filter proxy delegating to a filter bean specified in web.xml. All calls to the filter proxy will be delegated to that servlet filter bean.

@ It's the web servlet daemon filter proxy that delegates to a bean specified in spring.security.factories. All calls to the filter proxy that do not contain a proper route will return an error.

Q31. What value does Spring Boot Actuator provide?

It helps monitor and manage a Spring Boot application by providing endpoints such as health checks, auditing, metrics gathering, and HTTP tracing. @

It provides out-of-the-box functionality that integrates with third-party metrics platforms to automatically scale up and down the number of threads in threadpools.

It's a CLI that allows you to modify the configuration of a running Spring Boot application without the need for restarting or downtime.

It provides out-of-the-box functionality that integrates with third-party metrics platforms to automatically scale up and down the number of instances of the Spring Boot application.

Reference: Spring Boot Actuator

Q32. What is the purpose of the @ContextConfiguration annotation in a JUnit Test?

It introspects the local machine and automatically provisions resources based on certain contextual configuration files.

It automatically generates comments for annotated classes on autowired dependencies to provide additional context about dependencies.

It defines metadata at the class-level to determine how to load or configure an ApplicationContext in Spring integration tests. @

It automatically generates JavaDocs for annotated classes to provide additional context about the purpose of the class.

Q33. How are authentication and authorization different?

Authentication is the act of granting access to specific resources and functions based on config settings. Authorization is the act of introspecting a user's credentials to ensure they are not impersonating another user.

Authentication is the act of verifying certain resources and functions are actually valid. Authorization is the act of verifying a user's credentials have not expired.

Authentication is the act of verifying that certain resources and functions actually exist in the database. Authorization is the act of verifying a user's credentials to ensure they are valid.

Authentication is validating that users are who they claim to be. Authorization is granting access to specific resources and functions.

@

Q34. What is the purpose of the @RequestBody annotation?

to create a ThreadLocal byte stream that allows a request to be encoded for reading directly into a database

to automatically generate a ThreadLocal byte stream from the body of a request that allows a request to be scanned for security risks

to indicate whether an annotated handler method parameter should be bound to the web request body, which is converted by an `HttpMessageConverter` @

to automatically validate the characters contained in a request to ensure that they are a valid character encoding

Q35. What is the DispatcherServlet and what is its function?

The DispatcherServlet process daemon assigns a separate Web Servlet Container process to each HTTP request that comes into the web server.

It is a servlet that dispatches HTTP requests to registered handlers/controllers for processing. @

The DispatcherServlet API assigns a separate Web Servlet Node process to each additional HTTP request that comes into the web server.

It is a servlet that dispatches an array of background daemon processes that allocate memory and CPU cycles to each request.

Q36. What is Spring Boot autoconfiguration?

It triggers a local automated review of configuration files such as web.xml and detects possible security issues or automatically resolves circular dependencies.

It triggers an automated review of configuration by a web-based agent that reviews your existing web.xml file and detects possible security issues.

It's an opinionated, intelligent method of introspecting an app to configure beans that are likely to be needed. This configuration can be overridden over time with manual configuration. @

It provides plug-in functionality while editing your web.xml and other config files that will autocomplete common dependencies while typing.

Q37. Which are valid steps to take to enable JPA in Spring Boot?

Add an @EnableJpaRepositories annotation to your configuration class and create a Spring Data Repository. @

Add an @EnableJpaEntities annotation to your configuration class, create a Spring Data YAML configuration file, and manually update the Spring XML config files to define your repository locations.

Add an @EnableDbFunctionality annotation to your configuration class, create a Spring Data XML configuration file, and manually update the Spring factories file to define your repositories.

Add an @InitJpaEntities annotation to your configuration class, create a Spring Data properties configuration file, and manually update the Spring startup parameters to define your repository locations.

Q38. What is a transaction in the context of Spring Data?

a version-controlled schema change that is applied to a database
a sequence of actions representing a single unit of work managed as a single operation that can be either committed or rolled back @
an encoded message and response between various shards of a database
an exchange or interaction between various worker nodes in a multithreaded environment

Q39. Modularization of a concern that cuts across multiple classes is known as a(n) ____.

multiclass
aspect @
crosscut
sidecut

Q40. How do you inject a dependency into a Spring bean?

any of these answers @
Annotate a Setter method with the @Autowired annotation.
Specify parameters in the constructor with an optional @Autowired annotation.
Use field injection.

Q41. Consider the properties file application.properties. How would you load the property my.property?

my.property=Test
A
@Prop("\${my.property}")
private String val;
B

```

@GetVal("my.property")
private String val;
    C
@GetProperty("${my.property}")
private String val;
    D
@Value("${my.property}")
private String val;          @

```

Q42. What is a bean in the context of Spring?

a managed dependency defined by configuration metadata that can be injected into downstream classes @

a binary-encoded, agnostic, named entity that is translatable between different data formats

a payload that is transferable between different services in a Service-Oriented Architecture (SOA)

a discrete piece of data that is encoded in a binary format for persisting to a file system

Q43. Which property is given precedence by Spring?

application properties located in an application.properties file outside the application.jar

@PropertySource annotations on configuration classes

profile-specific application-{profile}.properties files @

application properties located in an application.properties file inside the application.jar

Q44. In the Spring Bean lifecycle pictured, what should the third step of the process be?

Alt text

Persist bean definitions into a database

Instance bean objects @

De-normalize bean definition

Use reflection to inject bean objects into the servlet container

Q45. What Spring Boot property is used to set the logging level for the entire application in the application.properties file?

logging.settings

log.level

root.logger.level

logging.level.root @

Q46. What is a Spring bean uniquely identified?

an autogenerated UUID

a unique String name @

an auto-incremented Integer ID

an ID derived from its location in memory

Q47. What is the difference between a JAR and a WAR distribution in Spring Boot?

Spring Boot can create a self-executable WAR file that runs without needing a servlet container. A JAR file has to be deployed to an existing web container such as Tomcat with separate files for dependencies.

Spring Boot can create a JAR file that contains bytecode that interacts directly with the OS without needing a servlet container. A WAR file has to be deployed to an existing web container such as Tomcat with separate files for dependencies.

The Spring Boot JAR file will be deployed to a Servlet container such as Tomcat on an existing running web server locally. The WAR file will be deployed to a cloud-based servlet container.

Spring Boot can create a self-executable JAR file that contains all the dependencies and an embedded Servlet container. A WAR file has to be deployed to an existing web container such as Tomcat. @

Q48. How does the transaction propagation setting impact the behavior of transactions?

It ensures that transactions that are committed to the database are propagated to all the shards of a clustered database system.

None of these answers is correct.

It guarantees that transactions that are submitted to the database cluster are propagated to all the nodes of a clustered database cloud.

It enforces that a logical transaction scope is created for each method that determines rollback-only status, with an outer transaction scope being logically independent from the inner transaction scope. @

Q49. What is printed when this code is run as a @SpringBootApplication?
@Component

```
public class Test implements InitializingBean {
    @Autowired
    ApplicationContext context;

    private TestService service;
    public void setService(TestService service) {
        this.service = service;
    }

    @Override
    public void afterPropertiesSet() throws Exception {
        System.out.print(context.containsBean("testService") + " ");
        System.out.println(service.getClass());
    }
}

@Service
class TestService {}
```

```
a null pointer stacktrace @
true null
true package.TestService
false package.TestService
```

Explanation: missing @Autowired on private TestService service or on the setter

Q50. To register a custom filter that applies only to certain URL patterns, you should remove the _ annotation from the filter class and register a @Bean of type _ in Spring @Configuration.

```
@RequestMapping; WebRequest
@Controller; URLFilter
@WebFilter; ServletContextInitializer
@Component; FilterRegistrationBean @
```

Q51. What is the correct term for each definition bellow?

A predicate that matches join points.

A point during the execution of a program, such as the execution of a method or the handling of an exception.

An action taken by an aspect at a particular join point.

1. Pointcut
2. Advice
3. Join point

1. Join point
2. Pointcut
3. Advice

1. Advice
2. Pointcut
3. Join point

1. Pointcut
2. Join point
3. Advice @

Q52. How should passwords be stored?

Passwords should be hashed using an adaptive one-way function such as bcrypt. @

Passwords can be stored in a BASE64 encoded format if they are stored in a private database.

Passwords should be salted and hashed using the MD5 algorithm.

Passwords should be hashed using the SHA-1 algorithm, then salted to provide defence against rainbow table attacks.

Q53. What methods does this Pointcut expression reference?

@target(com.linkedin.annotation.Loggable)

any join point where the target object has a @Loggable annotation @

any join point where the executing method has a @Loggable annotation

any method that implements Loggable

any method that extends Loggable

Q54. What is printed when this code is run as a @SpringBootApplication?

@Component

```
public class Test implements InitializingBean {
```

```
    @Autowired
```

```
    ApplicationContext context;
```

```
    @Autowired
```

```
    SimpleDateFormat formatter;
```

```
    @Override
```

```
    public void afterPropertiesSet() throws Exception {
```

```
        System.out.println(context.containsBean("formatter"));
```

```
        System.out.println(formatter.getClass());
```

```
    }
```

```
}
```

@Configuration

```
class TestConfig2 {
```

```
    @Bean
```

```
    public final SimpleDateFormat formatter() {
```

```
        return new SimpleDateFormat();
```

```
    }
```

```

}
true
    class java.text.SimpleDateFormat
true
    SimpleDateFormat
a NullPointerException stacktrace
a BeanDefinitionParsingException stacktrace      @

```

Q55. What is the purpose of a web application context?

Configures a web application that is able to be deleted and re-created during runtime through hot swap. It adds a `recreateContext()` method and defines a root `WebDaemon` that must be bound to in the bootstrap process.

It configures a Spring application that is able to be modified on the fly during runtime through bytecode re-encoding. Also it adds an `updateContext()` method and defines a root `WebServlet` that must be bound to in the bootstrap process.

It provides configuration for a web application that is read-only while running. Also, it adds a `getServletContext()` method and defines an attribute name to which the root context must be bound in the bootstrap process. @

It provides configuration for a Spring application that is updatable on the fly during runtime through bytecode weaving. Also it adds an `updateServletContext()` method and defines a root servlet that must be bound to in the bootstrap process.

Q56. What is Spring AOP?

Aspect-Oriented Programming allows you to define different cross-cutting aspects that isolate beans to be available only in certain environments and profiles.

Aspect-Oriented Programming enables you to perform profiling, which lets you develop different cross-cutting JVM performance-tuning profiles for different aspects of your applications.

Aspect-Oriented Programming enables the modularization of cross-cutting concerns so that repeated boilerplate logic, such as logging code, does not pollute business logic. @

Aspect-Oriented Programming enables you to persist cross-cutting data across modularized shards of your database.

Q57. Assuming username and password authentication is in place, what method on the Authentication object can be used to obtain the username?

```

getPrincipal      @
getUsername
getUser
getDn

```

Q58. Assuming no additional configuration is provided, what is the first selection criteria Spring uses to choose a bean when autowiring a property?

```

none of these answers
bean type
bean size
bean name @

```

Q59. What is the result of calling the map controller method using the following HTTP request?

```

POST localhost:8080/map
{"b" : "b", "d" : "d"}
@RestController

```

```

public class SampleController {
    @RequestMapping("/map")
    public String map(@RequestBody SampleObject sampleObject) {
        return sampleObject.getB() + sampleObject.getC();
    }
}
public class SampleObject {

    String b;
    String c;

    public String getB() { return b; }

    public void setB() { this.b = b; }

    public String getC() { return c; }

    public void setC() { this.c = c; }
}

```

An InvalidRequestBodyException is thrown at runtime.
 A MissingPropertyException is thrown at runtime.
 The text "bnull" is returned in the response body. @
 The text "a" is returned in the response body.

Q60. What effect does private static have on the object service below?

```

@SpringBootApplication
public class Question14 {
    @Autowired
    private static Service service;

    public static void main(String[] args) {
        SpringApplication.run(Question14.class, args);
    }
}

```

@Component

class Service {}

The application will result in a compile error because you can't
 autowire a private variable.

The application will compile and run, and service will have its
 dependency correctly injected by Spring.

The application will compile and run, but service will not be autowired
 because you cannot autowire a static class member. @

The application will result in a compile error because you attempted to
 autowire a static variable.

Q61. What is a security context?

The security context includes details of the principal currently using
 the app, which is stored by default in a ThreadLocal in an Authentication
 object. @

The security context holds a list of all users and their encrypted
 passwords in memory and a list of resources that users are able to
 access.

The security context includes information about safe network IDs and IP
 addresses that are able to access the system.

The security context includes information about permissions on the local
 file system describing how local file resources can be accessed.

Q62. How might you map an incoming request to a controller method?

Annotate a Controller class with `@Controller`. Then, using a specific naming convention for the methods, the `RequestMappingHandlerAdapter` will automatically configure your endpoints with the proper HTTP verb and URI.

Register a controller as a bean. Then, using a specific naming convention for the methods, the `RequestMappingHandlerAdapter` will automatically configure your endpoints based on values from the YAML config file.

Annotate a controller method with `@RequestMapping`, or a HTTP verb-specific annotation with a String URI pattern parameter (and other params as needed), which is supported through a `RequestMappingHandlerMapping/Adapter`. `@`

Register a controller as a bean. Then, using a specific naming convention for the methods, the `RequestMappingHandlerAdapter` will automatically configure your endpoints based on values passed into the bean definition.

Q63. What methods does the Pointcut expression below reference?
`execution(* setter*(..))`

any method with a name that contains the String "setter" with a single parameter

any method with a name that begins with String "setter" with a single parameter

any method with a name that begins with String "setter" `@`

any method with a name that contains the String "setter" Source:
baeldung

Q64. What pattern does Spring MVC implement to delegate request processing to controllers?

Front Controller`@`

Facade

Reactive Chain

Observer

Q65. What methods does this Pointcut expression?
`within(com.linkedin.service..*)`

any join point only within the service package

This is not valid Pointcut expression

any method in a class that autowires a service bean

any join point within the service package or one of its subpackages `@`

Q66. What is the output from invoking this Actuator endpoint in an unmodified Spring Boot application generated using Spring Initializr?
`/shutdown`

The request would fail because the endpoint is disabled by default. `@`

The Spring Boot app would return a URL and a list of currently running processes, and ask you to confirm the shutdown command.

The Spring Boot app would return a URL to confirm the shutdown command.

The Spring Boot app would begin shutting down.

Reason: By default, all the endpoints are enabled in Spring Boot Application except `/shutdown`; this is, naturally, part of the Actuator endpoints.

Q67. How can you access the application context in a Spring integration test?

The context is present in a ThreadLocal so you can just call `getSpringApplicationContextInstance()` anywhere in a test to get the current context.

Test classes can implement the `ApplicationContextAware` interface or autowire the `ApplicationContext`.

The context is automatically injected in every test so you can just call `getSpringApplicationContextInstance()` anywhere in a test to get the current context. @

You can just add the parameter `Context context` to any method so that the context is automatically wired in. Source: `spring(dot)io`

OSBA service that represent an internal application is called

Business service @

Proxy service

Control service

Subservice

The following are folders to be created in an OSB project except

Transformation

WSDL

Custom @

Proxy

A business service could be in form of the following except

FTP service

WebService

Component service@

REST service

On checking business folder and selecting business service, what comes up?

Browse tab

General tab @

Transport tab

WSDL tab

In the 'In Variable', what should be inserted?

Expression

XQuery Resources

Browse

Body @

Examples of concepts essential to a business, are these except

Milestones

Measures

Expression @

Dimensions

For Oracle service Bus 11g installation, which of these is not required?

64-bit JDK

Repository creation utility

WebLogic Server 10.3.3

Window.js @

The Oracle Service Bus (OSB) was formerly known as

AquaLogic Service@

BEA Systems

Oracle Enterprise Bus

Oracle Enterprise Service Bus

The following are features of the OSB except

Protocol conversion

Third party monitoring @

Service virtualization

Version management

A service which function as a facade for an internal service is called

Business service

Proxy service @

Control service

Subservice