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Node Quiz: Q & A

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**OAuth**

1. What is the best answer to define OAuth?
   1. An authorization framework that enables 3rd party applications to obtain limited access to a web service
   2. A simple way to publish and interact with protected data
   3. A more safe and secure way to give you access to data
   4. **All of the above**
2. Which of the following is OAuth not used to protect?
   1. Web Applications
   2. Desktop Applications
   3. Mobile Applications
   4. **Personal Computer BIOS**
3. In the 6 steps to OAuth, what is step 1?
   1. **The user shows intent**
   2. The consumer gets permission
   3. The user gives permissions
   4. The user is redirected to the service provider
4. In the 6 steps to OAuth, what is step 2?
   1. **The consumer gets permission**
   2. The user shows intent
   3. The user gives permissions
   4. The user is redirected to the service provider
5. In the 6 steps to OAuth, what is step 3?
   1. **The user is redirected to the service provider**
   2. The user shows intent
   3. The user gives permission
   4. The consumer gets permission
6. In the 6 steps to OAuth, what is step 4?
   1. **The user gives permission**
   2. The user is redirected to the service provider
   3. The consumer accesses the protected resource
   4. The consumer obtains an access token
7. In the 6 steps to OAuth, what is step 5?
   1. **The consumer obtains an access token**
   2. The consumer Accesses the protected resource
   3. The user gives permission
   4. The consumer gets permission
8. In the 6 steps to OAuth, what is step 6?
   1. **The consumer accesses the protected resource**
   2. The consumer obtains an access token
   3. The user gives permission
   4. The user is redirected to the service provider
9. OAuth 2.0 must be encrypted on the endpoints.
   1. True
   2. **False**
   3. Sometimes
   4. This is a trick question, only with OAuth 1.0 is encryption relevant
10. OAuth 2.0 supports Federated Identity.
    1. **True**
    2. False
    3. Sometimes
    4. This is a trick question, only with OAuth 1.0 is federation relevant

**Microservices**

1. A microservice is an architecture that structures an application as \_\_\_\_\_\_\_\_\_\_\_.
   1. **A collection of services**
   2. A way to safe way to secure an application
   3. A load balanced method of interacting with HTTP
   4. A cloud based solution
2. Which of the following is NOT a characteristic of microservices?
   1. Highly maintainable
   2. Loosely coupled
   3. **Restricted to one language per solution**
   4. Organized around business capabilities
3. An API Gateway is a \_\_\_\_\_\_\_\_ \_\_\_\_ for all clients into microservices.
   1. Exit point
   2. **Single point of access**
   3. Recommended protocol
   4. All of the above
4. Which of the following is NOT an advantage of an API Gateway?
   1. Improve fault isolation
   2. Improved productivity and speed
   3. Ease of understanding
   4. **Forces technology lock-in**
5. Which of the following is NOT a disadvantage of an API Gateway?
   1. Testing a microservices-based application can be cumbersome
   2. Deploying microservices can be complex
   3. **Microservices makes it hard to build and maintain apps**
   4. Each service must be tested and monitored increasing the demand for automation
6. Which of the following are microservice deployment options?
   1. Virtual machines
   2. Physical machines
   3. Serverless Solutions
   4. **All of the above**
7. Which of the following are popular Microservice Scaling methods?
   1. X-axis scaling
   2. Y-axis scaling
   3. Z-axis scaling
   4. **All of the above**
8. What is a top challenge of X-axis scaling?
   1. **It requires more memory to be effective**
   2. It requires more CPU to be effective
   3. It requires more hard drive space to work
   4. All of the above
9. X-axis scaling\_\_\_\_\_\_.
   1. **Consists of running multiple copies of an application behind a load balances**
   2. Consists of running multiple identical copies of the application, splitting the application into multiple different services
   3. Consists of multiple running copies of the code, but each server being responsible for only a subset of the data
   4. None of the above
10. Y-axis scaling\_\_\_\_\_\_.
    1. Consists of running multiple copies of an application behind a load balances
    2. **Consists of running multiple identical copies of the application, splitting the application into multiple different services**
    3. Consists of multiple running copies of the code, but each server being responsible for only a subset of the data
    4. None of the above

**Continuous Integration**

1. Continuous integration is \_\_\_\_\_\_.
   1. **The practice of integrating changes from different developers in the team into a mainline as early as possible.**
   2. The practice of integrating changes from different developers in the team into a mainline as close to the due date as possible.
   3. Software designed to integrate changes without an administrator’s input.
   4. Running software 24 hours per day, so the business increases it’s productivity
2. Which of the following is NOT a popular continuous integration tool?
   1. Jenkins
   2. Bamboo
   3. **CI/CD**
   4. Semaphore
3. Which of the following are factors for choosing a continuous integration tool?
   1. Requirements
   2. Tech Stack
   3. How to handle your workflow
   4. **All of the above**
4. Which of the following are benefits of continuous integration?
   1. Reduce Risk
   2. Faster iterations
   3. Faster Feedback
   4. **All of the above**
5. Which of the following is NOT a best practice for continuous integration?
   1. Maintain a code repository
   2. Automate your build
   3. **Require management approval**
   4. Make your build self-testing
6. Which of the following ARE best practices for continuous integration?
   1. Everyone on the team can see the results of your latest build
   2. Every commit should be built
   3. Daily commits to the baseline by everyone on the team
   4. **All of the above**
7. Which of the following is NOT a popular repository?
   1. Github
   2. Bitbucket
   3. TFS
   4. **Docker**
8. Which of the following is a popular automated testing tool?
   1. **Selenium**
   2. HP Fortify
   3. Black Duck
   4. None of the above
9. What is the key feature of continuous integration?
   1. **Automation**
   2. Repositories
   3. Logging
   4. All of the above
10. Without continuous integration, developers must:
    1. Manually unit test their code
    2. Manually integrate their code
    3. Manually deploy their code
    4. **All of the above**