

Correct! DNS translates human-readable domain names into IP addresses, allowing you to access websites by their names.

3. You're planning to create a website and need to choose between HTTP and HTTPS. Which aspect distinguishes HTTPS from HTTP when it comes to data security?

1 / 1 point

- ☐ HTTPS has faster performance.
- ☐ HTTPS requires fewer resources.
- ☐ HTTPS uses no certificates.
- ☒ HTTPS encrypts data.

**Correct**

Correct! HTTPS encrypts data during transmission using SSL/TLS, ensuring data security and confidentiality.

4. Imagine you run a popular e-commerce website, and due to a sudden increase in traffic during a sale event, your servers are struggling to handle the load. What technique would you consider using to efficiently distribute the incoming requests and maintain performance?

1 / 1 point

- ☐ Reducing website features
- ☒ Horizontal scaling

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- ☒ Python
- ☐ JavaScript
- ☐ Java
- ☐ Ruby

**Correct**

Correct! Python is commonly used with frameworks like Django and Flask to build web applications.

8. You're working on improving a mobile app's accessibility. Which step would you take to address the challenge of improving accessibility?

1 / 1 point

- ☐ Making the app available in multiple languages
- ☐ Adding more images to the app
- ☐ Increasing the app's font size
- ☒ Ensuring the app's user interface follows guidelines

**Correct**

Correct! Ensuring the app's user interface adheres to accessibility guidelines would address the challenge

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9. You're developing a web application and want to enable dynamic content updates without having to refresh the entire page. Which technique allows for real-time communication with the server and dynamic content updates?

1 / 1 point

- ☐ Using XML for data exchange
- ☒ Making AJAX requests and using APIs
- ☐ Utilizing HTML5's IndexedDB for local data storage
- ☐ Implementing Web SQL Database for structured data storage

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Correct! AJAX requests and APIs enable real-time communication with the server and dynamic content updates without requiring a full page refresh.

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10. You're tasked with developing a new web application and want to focus solely on building and deploying the application without worrying about managing the underlying infrastructure. Which cloud service model should you choose?

1 / 1 point

- ☐ IaaS (Infrastructure-as-a-Service)
- ☒ PaaS (Platform-as-a-Service)
- ☐ SaaS (Software-as-a-Service)
- ☐ All three service models (IaaS, PaaS, SaaS)

✓ Correct

Correct! PaaS offers a platform for developing, testing, and deploying applications while the underlying infrastructure is managed by the provider. This allows you to focus on application development without worrying about infrastructure management.