University Question Bank

A comprehensive compilation of important questions

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Questions and Answers

What are the differences between Amazon Simple DB and Amazon RDS??

Answer:

answers to the question in HTML format:

What are the differences between Amazon Simple DB and Amazon RDS?

Amazon SimpleDB and Amazon RDS are two popular database services offered by Amazon Web Services (AWS). While both services allow you to store and manage data, they differ in their underlying architecture, features, and use cases.

Amazon SimpleDB

Amazon SimpleDB is a type of NoSQL database service that allows you to store and query data using a key-value pairs. It is designed for applications that require fast and efficient data storage and retrieval, with low latency and high scalability. SimpleDB is typically used for applications that require a high degree of flexibility and scalability, such as social media, gaming, and content delivery networks.

Features of Amazon SimpleDB

• NoSQL: SimpleDB does use SQL to interact with data, and instead uses a proprietary query language called SimpleDB Query Language (SDBQL).

• Faster data retrieval: SimpleDB is optimized for fast data retrieval, with latencies typically measured in milliseconds.

• High scalability: SimpleDB can scale horizontally to handle large amounts of traffic and data.

• Simplistic data model: SimpleDB has a simplified data model that is easy to understand and work with.

Amazon RDS

Amazon RDS is a relational database service that allows you to run MySQL, PostgreSQL, Oracle, and Microsoft SQL Server on AWS. It provides a managed service that makes it easy to set up, manage, and scale a relational database in the cloud. RDS is typically used for applications that require a traditional relational database management system (RDBMS), such as web applications, e-commerce sites, and financial applications.

Features of Amazon RDS

• Relational database: RDS provides a traditional RDBMS that supports standard SQL queries.

• Support for major DB engines: RDS supports multiple DB engines, including MySQL, PostgreSQL, Oracle, and Microsoft SQL Server.

• Database administration: RDS provides a managed service that automates database

administration tasks, such as backups, patching, and scaling.

• High availability: RDS provides high availability features, such as automatic failover and read replicas, to ensure that your database is always available.

• Scalability: RDS allows you to scale your database instance to handle changing workloads and traffic patterns.

• Integration with cloud services: RDS provides seamless integration with other AWS services, such as Auto Scaling, Elastic Load Balancing, and AWS Lambda.

Difference between Amazon SimpleDB and Amazon RDS

The main difference between Amazon SimpleDB and Amazon RDS is the type of database service they provide. SimpleDB is a NoSQL database service that is designed for fast data retrieval and high scalability, while RDS is a relational database service that is designed for traditional RDBMS applications.

Aher key difference is the data model. SimpleDB uses a key-value store, while RDS uses a relational data model with tables, indexes, and relationships. This means that SimpleDB is better suited for applications that require fast data retrieval and high scalability, while RDS is better suited for applications that require a traditional RDBMS and complex queries.

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What are the main characteristics of a PaaS.?

Answer:

Main Characteristics of a Platform as a Service (PaaS)

A Platform as a Service (PaaS) is a cloud computing model that provides a complete platform for developing, running, and managing applications, without the need for the user to manage the underlying infrastructure. The main characteristics of a PaaS can be summarized as follows:

• Application Development**: PaaS allows developers to create and deploy applications without worrying about the underlying infrastructure, frameworks, and tools. This enables rapid application development, testing, and deployment.

• Server Management**: PaaS providers manage the server infrastructure, including servers, network, storage, and security, freeing up the developer to focus on writing code.

• Abstracted Infrastructure**: PaaS provides an abstracted view of the underlying infrastructure, hiding the complexities of the servers, networks, and storage systems. This allows applications to be developed and deployed without worrying about the underlying infrastructure.

• Self-Service Provisioning**: PaaS provides self-service provisioning, which means that developers can quickly provision and deploy resources as needed, without relying on IT or infrastructure teams.

• Integrated Development Environment (IDE)**: PaaS often includes an integrated development environment (IDE) that provides a comprehensive set of tools for developing, testing,

and deploying applications.

• Scalability**: PaaS provides scalability, which means that applications can be easily scaled up or down to match changing business demands, without the need for manual intervention.

• Security and Compliance**: PaaS providers manage security, compliance, and regulatory issues, such as patching, Backup and Recovery, and encryption, freeing up developers to focus on writing code.

• Multi-Tenant Architecture**: PaaS often uses a multi-tenant architecture, which means that multiple users and applications share the same infrastructure, improving resource utilization and reducing costs.

• Platform Services**: PaaS provides a range of platform services, including databases, messaging queues, and scalability services, which can be easily integrated into applications.

• Fully-Managed**: PaaS is a fully-managed service, which means that the provider is responsible for maintenance, updates, and troubleshooting, freeing up developers to focus on developing applications.

• Cost-Effective**: PaaS can be a cost-effective solution, as users only pay for the resources and services they use, without the need for upfront capital expenditures or ongoing infrastructure maintenance.

Identify the main security threats for the SaaS cloud delivery model on a public

cloud.?

Answer:

Identify the main security threats for the SaaS cloud delivery model on a public cloud.

The main security threats for the SaaS cloud delivery model on a public cloud are:

What are the development technologies currently supported by App Engine??

Answer:

What are the development technologies currently supported by App Engine?

Google App Engine is a platform for building scalable web applications, and it supports a variety of development technologies, including:

Describe the core components of App Engine. 1?

Answer:

Describe the core components of App Engine.

Google App Engine is a platform for building scalable web applications, and it consists of several core components:

Describe Amazon EC2 and its basic features.?

Answer:

Describe Amazon EC2 and its basic features.

Amazon EC2 is a web service provided by Amazon Web Services (AWS) that allows users to run virtual machines, called instances, in the cloud.

How does cloud computing help to reduce the time to market applications and to cut down capital expenses.?

Answer:

How does cloud computing help to reduce the time to market applications and to cut down capital expenses?

Cloud computing helps to reduce the time to market applications by allowing developers to quickly and easily spin up and deploy applications, without having to worry about the underlying infrastructure.

Explain Software as a service.?

Answer:

Explain Software as a Service (SaaS).

Software as a Service (SaaS) is a cloud computing model where software applications are provided to users over the internet, rather than being installed on local computers or servers.

Describe the fundamental features of the economic and business model behind cloud computing.?

Answer:

Describe the fundamental features of the economic and business model behind cloud computing.

The fundamental features of the economic and business model behind cloud computing are:

Compare the benefits and the potential problems due to virtualization on public, private, and hybrid clouds.?

Answer:

Compare the benefits and potential problems due to virtualization on public, private, and hybrid clouds.

Virtualization is a key technology behind cloud computing, and it provides a number of benefits and potential problems, regardless of whether the cloud is public, private, or hybrid.