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## QUESITI COLLOQUIO

### Quesito n. 1

- Quali sono le accortezze da tenere in considerazione quando si fanno i backup di database relazionali.

INGLESE:

VMware VMotion

VMotion enables the migration of running virtual machines from one physical server to another without service interruption. This allows virtual machines to move from a heavily loaded server to a lightly loaded one. The effect is a more efficient assignment of resources. Hence, with VMotion, resources can be dynamically reallocated to virtual machines across physical servers.

### Quesito n. 2

- Descrivere brevemente vantaggi/svantaggi delle soluzioni cloud rispetto a quelle tradizionali.

INGLESE:

VMware DRS enables the system administrator to set resource assignment policies that reflect business needs and let VMware DRS do the calculation and automatically handle the detailed physical resource assignments. VMware DRS dynamically monitors the workload of the running virtual machines and the resource utilization of the physical servers within a Cluster.

### Quesito n. 3

- Descrivere i vantaggi degli snapshot nell'informatica ed elencare dove si possono utilizzare.

INGLESE:

VMware HA offers a simple and low cost high availability alternative to application clustering. It enables quick restart of virtual machines on a different physical server within a Cluster in case the hosting server fails. All applications within the virtual machines will benefit from high availability, not just one as with application clustering. VMware HA works by placing an agent on each physical server to maintain a "heartbeat" with the other servers in the Cluster.

**Quesito n. 4**

- Quali soluzioni adoteresti per limitare l'intrusione hacker all'interno di un'infrastruttura informatica.

INGLESE:

Oracle Autonomous Database is the world's first autonomous data management in the cloud to deliver automated patching, upgrades, and tuning—including performing all routine database maintenance tasks while the system is running - without human intervention. This new autonomous database cloud is self-managing, self-securing, and self-repairing, which helps to eliminate manual database management and human errors.

**Quesito n. 5**

- Descrivere una buona strategia di alta affidabilità per una farm virtuale.

INGLESE:

To make changes to a database or to retrieve data, you will need to enter an SQL statement. SQL stands for Structured Query Language. An SQL statement that requests data is called a query. Databases store information in tables. They're similar to spreadsheets, but much more efficient at managing data. Note that the test database may not contain any data yet. Copy and paste the following lines into the mariadb client. This will create the tables we will use and add some data to them. Don't worry about understanding them yet; we'll get to that later.

**Quesito n. 6**

- Descrivere una buona strategia di backup per installazioni in cloud.

INGLESE:

To interface with the MariaDB server, you can use a client program, or you can write a program or script with one of the popular programming languages (e.g., PHP) using an API (Application Programming Interface) to interface with the MariaDB server. For the purposes of this article, we will focus on using the default client that comes with MariaDB called mariadb. With this client, you can either enter queries from the command-line, or you can switch to a terminal, that is to say, monitor mode.

**Quesito n. 7**

- Descrivere le differenze fra database relazionali e database nosql.

INGLESE:

Taking the first steps as you start building on the cloud can seem overwhelming. Adjusting to a cloud-native approach can take time, especially if you are accustomed to the traditional on-premises way of provisioning hardware and building applications. Gaining familiarity with core concepts of cloud computing and the AWS Cloud will help give you confidence as you begin your cloud journey. In the following sections, we answer common questions about cloud computing and explore best practices for building on AWS.

**Quesito n. 8**

- Descrivere brevemente cosa si intende per Disaster Recovery e fornire un esempio di architettura.

INGLESE:

Amazon Elastic Compute Cloud (Amazon EC2) provides on-demand, scalable computing capacity in the Amazon Web Services (AWS) Cloud. Using Amazon EC2 reduces hardware costs so you can develop and deploy applications faster. You can use Amazon EC2 to launch as many or as few virtual servers as you need, configure security and networking, and manage storage. You can add capacity (scale up) to handle compute-heavy tasks, such as monthly or yearly processes, or spikes in website traffic. When usage decreases, you can reduce capacity (scale down) again.

**Quesito n. 9**

- Descrivere quali soluzioni adatteresti per rendere una soluzione LAMP (Linux, Apache, Mysql, Php) in alta affidabilità.

INGLESE:

Proxmox VE has included KVM support since the beginning of the project, back in 2008. KVM is the industry-leading Linux virtualization technology for full virtualization. It's a kernel module, that's merged into the mainline Linux kernel, and it runs with near-native performance on all x86 hardware with virtualization support. With KVM you can run both Windows and Linux in virtual machines (VMs), where each VM has private, virtualized hardware: a network card, disk, graphics adapter, etc. Running several applications in VMs on a single system, enables you to save power and reduce costs, while at the same time, giving you the flexibility to build an agile and scalable software-defined data center, that meets your business demands.

**Quesito n. 10**

- Descrivere brevemente un'architettura a Container e fornire un esempio di applicazione.

INGLESE:

It was in August 1993, when Ian Murdock started working on a new operating system which would be made openly, in the spirit of Linux and GNU. He sent out an open invitation to other software developers, asking them to contribute to a software distribution based on the Linux kernel, which was relatively new back then. Debian was meant to be carefully and conscientiously put together, and to be maintained and supported with similar care, embracing an open design, contributions, and support from the Free Software community. It started as a small, tightly-knit group of Free Software hackers and gradually grew to become a large, well-organized community of developers, contributors, and users.

**Quesito n. 11**

- Descrivere quali sono i passi per diagnosticare problemi di uno o più pc che non riescono a navigare su internet (anche dal punto di vista dell'infrastruttura network).

INGLESE:

Both Terraform and Ansible are capable of executing remote commands on the virtual machine that is newly created. This means, both the tools are agentless. There is no need to deploy agents on the machines for operational purposes.

Terraform uses cloud provider APIs to create infrastructure and basic configuration tasks are achieved using SSH. The same goes with Ansible – it uses SSH to perform all the required configuration tasks. The “state” information for both does not require a separate set of infrastructure to manage, thus both the tools are masterless.

### **Quesito n. 12**

- Descrivere brevemente l'implementazione di una rete wireless: componenti hardware, protocolli, sicurezza.

INGLESE:

A complete high availability and disaster recovery strategy requires dependable data backup, restore, and recovery procedures. Oracle Recovery Manager (RMAN) provides a comprehensive foundation for efficiently backing up and recovering the Oracle database. It is designed to work intimately with the server, providing block-level corruption detection during backup and restore. RMAN optimizes performance and space consumption during backup with file multiplexing and backup set compression, and integrates with Oracle Secure Backup, as well as third party media management products, for tape backup.

### **Quesito n. 13**

- Descrivere brevemente differenze e vantaggi di firewall e sistemi di intrusion detection e prevention.

INGLESE:

A Unix shell is both a command interpreter and a programming language. As a command interpreter, the shell provides the user interface to the rich set of GNU utilities. The programming language features allow these utilities to be combined. Files containing commands can be created, and become commands themselves. These new commands have the same status as system commands in directories such as /bin, allowing users or groups to establish custom environments to automate their common tasks.

### **Quesito n. 14**

- Descrivere le buone pratiche per la gestione e la limitazione dei permessi degli utenti su sistemi operativi Windows o Linux.

INGLESE:

Server Manager is a management console in Windows Server that helps IT professionals provision and manage both local and remote Windows-based servers from their desktops, without requiring either physical access to servers, or the need to enable Remote Desktop protocol (rdP) connections to each server. Although Server Manager is available in Windows Server 2008 R2 and Windows Server 2008, Server Manager was updated in Windows Server 2012 to support remote, multi-server management, and help increase the number of servers an administrator can manage.