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Define E_Learning?

Answer :

E-Learning

E-Learning is the online delivery of information for purposes of education, training, knowledge management, or performance management. It is a web - enabled system that makes knowledge accessible to those who need it, when they need it – anytime, anywhere. E-learning is useful for facilitating learning at schools

What is E-GOVERNMENT?

Answer:

41.5 E Government

E-Government / electronic government / digital government, or online government. The terms refer to government's use of information and communication technology (ICT) to exchange information and services with citizens, businesses, and other arms of government. E-Government may be applied by legislature, judiciary, or administration, in order to improve internal efficiency, the delivery of public services, or processes of democratic governance. The primary delivery models are

1. Government-to-Citizen or Government-to-Customer (G2C)
2. Government-to-Business (G2B) and
3. Government-to-Government (G2G)

What are types of IDS and explain each briefly?

Answer:

Types of IDS includes:

- **Signature-based:** These IDS systems protect against detected intrusion patterns. The intrusive patterns they can identify are stored in the form of signatures.
- **Statistical-based:** These systems need a comprehensive definition of the known and expected behaviour of systems.
- **Neural networks:** An IDS with this feature monitors the general patterns of activity and traffic on the network and creates a database.

How many Components of an ID is described in your course?

Answer :

Components of an IDS

An IDS comprise of following components:

- Sensors that are responsible for collecting data. The data can be in the form of network packets, log files, system call, traces, etc.
- Analyzers that receive input from sensors and determine intrusive activity
- An administrative console – it contains intrusion definitions applied by the analyzers.
- A user interface

Differentiate Deny-all philosophy and Accept All Philosophy?

Answer:

To be effective, firewalls should allow individual on the corporate network to access the Internet and at the same time, stop hackers or others on the Internet from gaining access to the corporate network to cause damage. Generally, most organizations can follow any of the two philosophies

- **Deny-all philosophy** -- which means that access to a given resources will be denied unless a user can provide a specific business reason or need for access to the information resource.
- **Accept All Philosophy** -- under which everyone is allowed access unless someone can provide a reason for denying access.

Explain following statement means ???

“ **Better people mean more secure networks** “

Answer:

The shortage of trustworthy people with IT security skills is a chronic problem that is unlikely to ever disappear. Enough engineers and computer scientists should be trained in computer security skills getting people with the right technical background to do the work has been the biggest need of all.

What kind of threat impact results after the threat come to happen?

Answer:

Threat Impact

It is difficult to assess the impact of the attacks described above, but in generic terms the following types of impact could occur:

- Loss of income
- Increased cost of recovery (correcting information and re-establishing services)
- Increased cost of retrospectively securing systems
- Loss of information (critical data, proprietary information, contracts)
- Loss of trade secrets
- Damage to reputation
- Degraded performance in network systems
- Legal and regulatory non-compliance
- Failure to meet contractual commitments

Differentiate cold sites , hot sites and Warm sites ?

Answer:

Cold sites

If an organization can tolerate some downtime, cold sites backup might be appropriate. A cold site has all the facilities needed to install a information system raised floors, air conditioning, power, communication lines and so on. The cold site is ready to receive equipment, but does not offer any components at the site in advance of the need. Activation of site is may take several weeks depending on the size of information processing facility.

Hot sites

If fast recovery is critical, an organization might need hot-site backup. All hardware and operations facilities will be available at the hot site. In some cases, software, data, and supplies might also be stored there. Hot sites are expensive to maintain. They usually are shared with other organizations that have same hot site needs.

Warm sites

They are partially configured, usually with network connections and selected peripheral equipment, such as disk drives, tape drives and controllers, but without the main computer. Sometimes a warm site is equipped with a less powerful CPU, than the one generally used. The assumption behind the warm site concept is that the computer can usually be obtained quickly for emergency installation and since, the computer is the most expensive unit, such a arrangement is less costly than a hot site. After the installation of the needed components the site can be ready for service within hours; however, the location and installation of the CPU and other missing units could take several days or weeks

Give briefly the cycle phases of BCP?

Answer:

Phases of BCP

The BCP process can be divided into the following life cycle phases:

- Creation of a business continuity and disaster recovery policy
- Business impact analysis.
- Classification of operations and criticality analysis.
- Development of a business continuity plan and disaster recovery procedures.
- Training and awareness program.
- Testing and implementation of plan.
- Monitoring

What is focal point plz explain briefly?

Answer:

A corporate-level facilitator may serve as a focal point for assessments throughout the company, including those pertaining to information security because of familiarity with the tools and the reporting requirements. Each business unit in an organization may have a designated individual responsible for the business unit's risk assessment activities. The computer hardware and software company, may also create a team for the purpose of improving the overall risk assessment process and reviewing results of risk assessments in the hardware and software systems from the perspective of offering a better, reliable and risk free product.

Differentiate between cryptography and Biometrics ?

Answer:

Cryptography

In literal terms, cryptography means science of coded writing. It is a security

safeguard to render information unintelligible if unauthorized individuals intercept the transmission. When the information is to be used, it can be decoded. "The conversion of data into a secret code for the secure transmission over a public network is called cryptography.

Biometrics

Identification of an individual through unique physical characteristics is proving to be quite safe and secure for allowing access. The study of personal characteristics has been extensively used for identification purposes. Biometrics can be defined as study of automated methods for uniquely recognizing humans based upon one or more intrinsic physical or behavioral traits.

Write down few types of viruses with explanation?

Answer:

Types of Viruses

Although viruses are of many types, however broad categories have been identified in accordance

with the damage they cause. Some of these categories have been stated below

- Boot Sector Viruses
- Overwriting viruses
- Dropper
- Trojans

Boot sector Virus

The boot sector is part of computer which helps it to start up. If the boot sector is infected, the virus can be transferred to the operating system and application software

Overwriting Viruses

As the name implies, it overwrites every program/software/file it infects with itself. Hence the infected file no longer functions.

Dropper

A dropper is a program not a virus. It installs a virus on the PC while performing another function

Trojan horse

A Trojan horse is a malicious program that is disguised as or embedded within legitimate software. They may look useful or interesting (or at the very least harmless) to an unsuspecting user, but are actually harmful when executed.

Examples are

- Logic bomb – Trojan horses are triggered on certain event, e.g. when disc clean up reaches a certain level of percentage
- Time bomb – Trojan horse is triggered on a certain date

Right the types of threats commonly undergone by E.Commerce?

Answer:

Types of Threats

- **Physical threat** – This refers to the damage caused to the physical infrastructure of the information systems, e.g.
 - Fire
 - Water
 - Energy Variations
 - Structural damage
 - Pollution

- Intrusion
- **Logical** – This refers to damage caused to the software and data without physical presence.
- Viruses and worms
- Logical intrusion

Define Internet briefly ?

Answer:

Internet

An interconnected system of networks that connects computers around the world via the TCP/IP protocol. Companies contact Internet service providers for availability of connection which allows them to be a part of internet. An intranet is a private enterprise owned communication network that uses Internet Protocols, network connectivity, and public telecommunication system to share organization's information or operations with its employees, and to enable the employees to communicate with each other.

Differentiate effectiveness and Efficiency?

Effectiveness

By effectiveness, it is meant that how effective is the manner in which the product or service is offered to the customer? This may include packaging, advertising, creating customer loyalty, timely availability in the market, understanding customer needs & requirements related to the particular product or service being offered.

Efficiency

The concept relates to not only how efficiently a quality product is manufactured, packed, stored and delivered to customers/points of sale but also how quickly are customer complaints responded to, in what manner are they removed, what is the cost of not doing so as to be compared to the cost of not doing so, and how it can be made more efficient. Efficiency is not just about being efficient at the production floor level but the decision making at management level also has to be efficient. Customer might not be able to see all of the process but he can see the efficiency coming out of it.

Define Object and classes?

Answer:

Object:

"A concept, abstraction, or thing with crisp boundaries and meaning of the problem at hand. Objects serve two purposes. They promote understanding of the real world and provide a practical basis for computer implementation."

Examples

Software objects are modeled after real-world objects in that they too have state and behavior. We might want to represent real-world dogs as software objects in an animation program or a real-world bicycle as software object in the program that controls an electronic exercise bike

Classes

A class is defined as

"The purpose of a class is to specify a classification of objects and to specify the features that characterize the structure and behavior of those objects."

For example, computers are the domain/Class which can be divided into following sub-classes:

- Laptop computer
- Desktop computer
- Palmtop

Why do we need object orientation ?

Answer:

Why need Object-Orientation?

There are certain positive points which are becoming stronger reasons for the increased use of this technique.

- Object orientation helps in increasing abstraction and event-driven programming
 - The widespread use of Graphical User Interface (GUI) encourages use of object orientation.
 - Software can be developed on modular basis
1. Easier to maintain
 2. Easier to upgrade
 3. Easier to test
 4. Easier to develop incrementally
- **Reusable Software** – The software developed using object oriented approach can be

easily reused due to independence/uniqueness of the objects i.e. an independent accounting module built in object oriented environment can be made a part of a complete ERP solution without developing it again from scratch for ERP

Differentiate Null and Derived?

Answer:

- **Null** : is a blank read as zero value. E.g. the various categories of graduation degrees (B.A., B.Com., BSc, etc) will apply to graduates and not to non-graduates and would be read as "Not Applicable".
- **Derived** : is information provided on the basis of a unique attribute e.g. customer ID, Employee ID, Student ID. Relevant dependant information can be obtained/derived through the said attribute.

What is ERD?

Answer:

Entity Relationship Diagram

"The entity-relationship diagram (ERD) is a data model or diagram for high-level descriptions of conceptual data model, and it provides a graphical notation for representing such data models in the form of entity-relationship diagrams."

E-R Diagram (E-R model) facilitates database design by allowing the specification of an "enterprise schema" which represents the overall logical structure of a database. The E-R Diagram (E-R model) is extremely useful in mapping the meanings and interactions of real-world enterprises onto a conceptual schema.

Differentiate flow chart and data flow diagram?

Answer:

Flow Chart

"A schematic representation of a sequence of operations as in a manufacturing process or computer program.

Data Flow Diagram

"A data flow diagram (DFD) is a graphical representation of the "flow" of data through an information system."

The purpose of data flow diagrams is to provide a linking bridge between users and systems developers.

The data flow diagrams are:

- Graphical, eliminating thousands of words;
- Hierarchical, showing systems

They have less jargon, allowing user understanding and reviewing. Data flow diagrams facilitate users to understand how the system operate. DFD's also help developers to better understand the system which helps in avoiding delays in proper designing, development, etc. of projects. at any level of detail

Describe system design and its components ?

Answer:

System Design

System design includes the desired features and operations in detail, including screen layouts, business rules, process diagrams other documentation. It involves converting the informational, functional, and network requirements identified during the initiation and planning phases into unified design specifications

Its components are:

- Formulation of strategic requirements
- Organizational & job design
- Elicitation of detailed requirements
- Design of the information flow
- Design of database
- Design of user interface
- Physical design
- Design of hardware & software platform

Differentiate between system analysis and system analyst?

Answer:

System analysis:

"A problem solving technique that decomposes a system into its component pieces for the purpose of studying, how well those component parts work and interact to accomplish their purpose."

Systems Analyst

"These are knowledge workers who facilitate the development of information systems and computer applications by bridging the communications gap that exists between non-technical system users, and System designers and developers."