



WORKSHEET 22

School: Ba Sangam College

Year / Level: 12

Subject: Computer Studies

Name of Student: _____

Strand	Application Package
Sub strand	Visual Basic .Net Programming (VB.Net)
Content Learning Outcome	Analyse and construct programs using programming skills learnt from Visual Basic.Net

Chapter 7 Managing and Maintaining Data Online

Big Data

Refers to technologies and initiatives that involve data that is too diverse, fast-changing or massive for conventional technologies, skills and infrastructure to address efficiently

What is Cloud Computing?

Cloud computing is a type of computing that relies on sharing computing resources rather than having local servers or personal devices to handle applications.

Identify the facilities and service model of data centre

In-House Data Centre

- ❖ A facility that is designed, built, and operated by an organization internally
- ❖ This approach limits or omits involvement from a third party, wherein the business takes it upon themselves to provide the space, power, cooling and equipment necessary to sustain operations
- ❖ In-house hosting typically requires a long term commitment and investment.
- ❖ It is more common among larger organizations and those with companies already in the tech industry, as an experienced technical support team is necessary in order to maintain the complex data Centre architecture

Colocation

- ❖ A colocation data centre lies on the opposite spectrum of the in-house data centre.
- ❖ Colocation facilities are third party organizations that are multi-tenant accessible, meaning that multiple businesses of any size or industry may house their equipment within the data centre.
- ❖ Customers are able to select from a variety of solutions to accommodate the specific requirements for their business.
- ❖ One example of a multi-tenant data centre where colocation space can be sold to enterprises by the rack, cabinet or cage.
- ❖ Customers still maintain control over their hardware, but outsource facility and internal systems maintenance to the provider

Wholesale Data Centre

- ❖ Wholesale data centres further expand standard colocation offerings.
- ❖ These providers sell data center space in larger capacities than a colocation model and typically have fewer customers.
- ❖ They may build-to-suit space for a single tenant.
- ❖ The concept is similar to leasing a warehouse or office space in which the landlord provides facility maintenance to the tenant.

Dedicated Hosting

- ❖ The provider operates and/or rents server capacity to single customers.

- ❖ In other words, servers are not shared among multiple customers.
- ❖ No additional services are provided and the customer maintains full control over the server beyond maintenance.
- ❖ However, some providers can add amenity services, such as remote hands to re-boot servers and upgrade software.
- ❖ In a dedicated hosting solution, businesses are able to maintain their equipment without sharing among multiple customers, and are granted access to all of the server's resources, operations, and security measures for their own use.

Managed Hosting

- ❖ Similar to dedicated hosting, managed hosting services operate under similar conventions, but provide an additional set of amenities for customers utilizing the servers.
- ❖ In a managed hosting solution, the provider operates servers for its customers, while additionally providing administrative and engineering services.
- ❖ Some of these services included (but are not limited to) database and operating system administration, managed security and storage services, disaster recovery services, application management services, systems monitoring and remote management.
- ❖ In this environment, the server may be owned by either provider or customer, but management of that server is the responsibility of the provider and not the individual.

Shared Hosting

- ❖ A final type of service offering that is common within the industry is shared hosting.
- ❖ In a shared hosting solution, customers share server capacity – namely, a server acts as a host to multiple clients or businesses
- ❖ Well-known website hosting companies, including Go Daddy and Network Solutions, represent examples of providers operating shared hosting facilities
- ❖ This shared hosting includes both the sharing of the physical server as well as the software and applications within the server
- ❖ To make shared hosting possible, the facility deploys an interface overlaying the physical server in order to facilitate multi-tenant applications so that customers can configure their individual services
- ❖ Shared hosting services are typically more affordable due to the fact that the server cost is split between businesses

These are a few of the most popular data centre facilities operating today. However, numerous service models exist and the line between different types of operations can become blurred.

Activity

1. Explain the term Big Data(2m)

2. What is cloud computing?(2m)

3. What is colocation?(2m)

4. Explain dedicated hosting(2m)
