ADVANCE SYSTEM ADMINISTRATION

What we will learn.....

Chapter I- Role vs Features

Chapter II- Adding Roles And Features

Chapter III- What is domain controller

Chapter IV- Domain Controller and Active Directory

Chapter V- Active Directory Prerequisites

Chapter VI- What is DNS

Chapter VII- Active Directory Installation

Chapter VIII- Active Directory Users and Computers

Chapter IX- Active Directory User Account Management

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Chapter XI- Joining the domain from windows 7 & 10

Chapter XI- Active Directory "Administrative Center"

Chapter XII- Active Directory "Domain and Trust"

Chapter XIII- Active Directory " Module for Windows Powershell"

Chapter XIV- Active Directory "Site and Services"

Chapter XV- Active Directory Group Policy Management

Chapter XVI- DNS Administration

Chapter XVII- WebServer (IIS) Installation

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Chapter I- ROLES VS FEATURES

- ## Roles

A server role is a set of software programs that, when they are installed and properly configured, lets a computer perform a specific function for multiples users or other computers within a network.
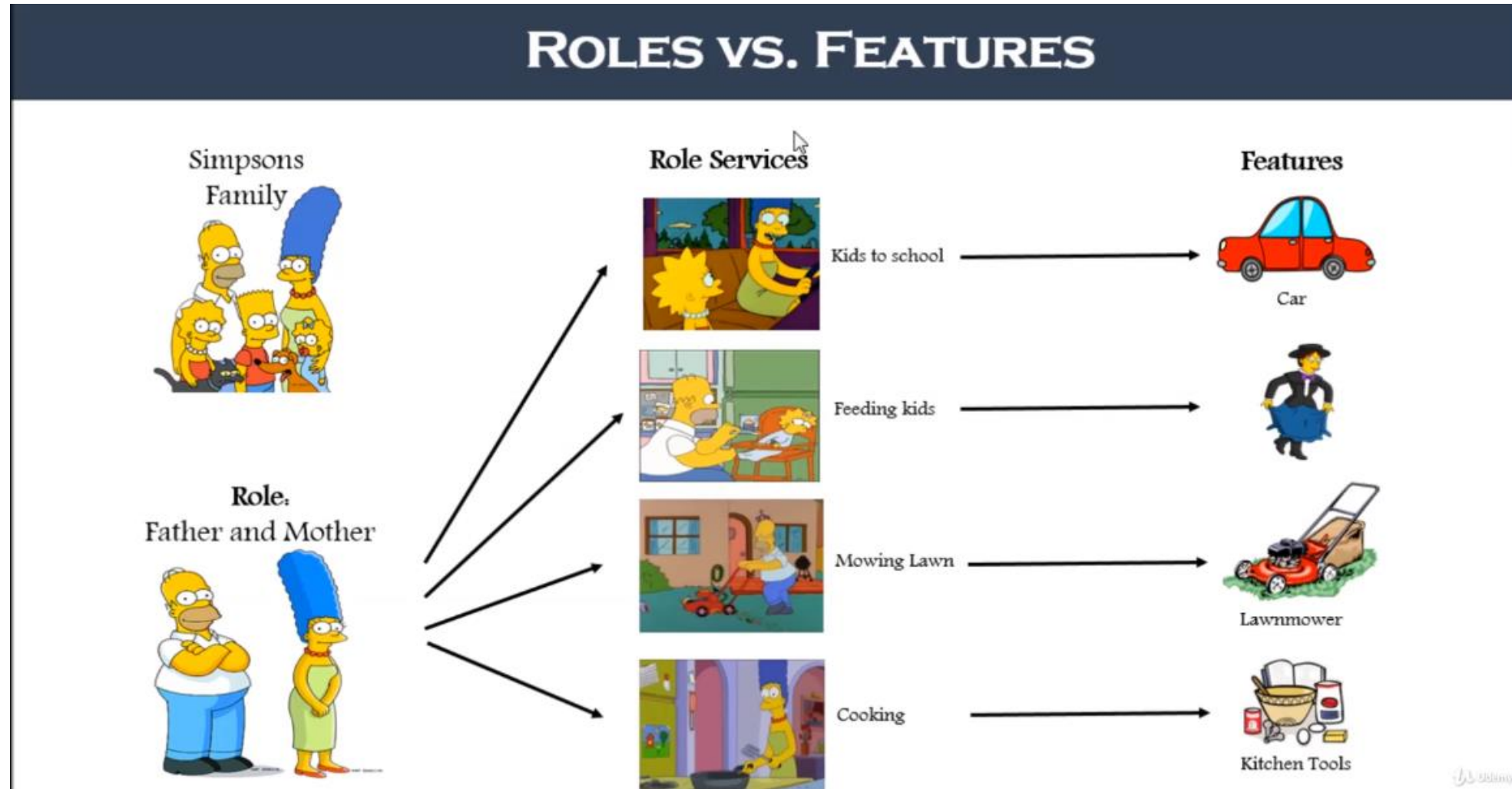
- ## Roles services

Are software programs that provide the functionality of a role. When you install a role, you can choose which services the role provides for other users and computers in your enterprise.

- ## Features

Are software programs that, although they are not directly part of roles or augment the functionality of one or more role, or improve the functionality of the server, regardless of which roles are installed.

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Roles vs Features

Chapter II- Adding Roles and Features

- When adding a role it may not requites service role or features.

- Service Roles are directly associated with roles and can't be installed without roles.

- When adding features it may or not may require service roles.

- When adding features it does not require roles.

Chapter III- Domain Controller

- Domain is an area of territory owned or controlled by a ruler or government
- Kingdom of resources
- Domain Controller Controls major group services such as:
- ❑ User Activation (AD)
- ❑ DNS
- ❑ Print Services
- ❑ Files System Separation
- ❑ Windows Time Service
- ❑ DHCP

Chapter IV- Domain Controller and Active directory

- Domain Controller (DC) is the main service that serves Active directory (AD) Service.

- Active directory is a directory service which allows user to authenticate logins, login to the clients.

1- Domain Controller Installation

- Domain Controller cannot be installed without a role

-   e.g. you can open a company but it is useless if it does not provide any products or services.

- You will need a role service to install domain controller

2- WHAT IS ACTIVE DIRECTORY

- Active Directory is one of the primary service role of a domain controller

- It stores information about objects on the network and make this information available to users and network administrators. AD DS uses domain controllers to give network users access to permitted resources anywhere on the network through a single logon process.

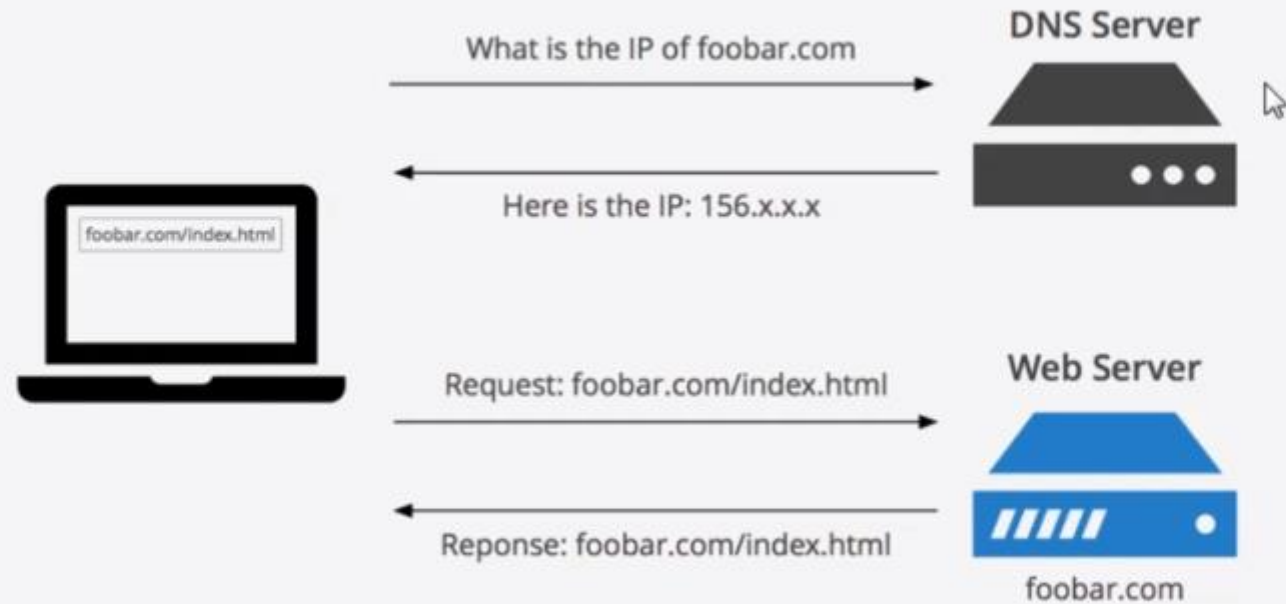# Chapter V- Active Directory Prerequisites

- DNS

- Static IP ADDRESS

- DOMAINE CONTROLLER= mylabdc.local

- NETBIOS DOMAINE NAME= lab

Chapter VI- What is DNS

- Domain Name Service

- Domain Name system or Server

- DNS is actually resolved the HOSTNAME to IP ADDRESS

- DNS also resolves HOSTNAME to IP ADDRESS

- Also resolves HOSTNAME to HOSTNAME (Alias or CNAME)

DNS

What Is a DNS Server?

Chapter VII- Active Directory Installation

- DNS

- STATIC IO ADDRESS= 10.0.0.25

- DOMAIN CONTROLLER NAME= mylabdc.local

- NETBIOS Domaine name= lab

Chapter VIII- Active Directory Users and Computers

- Organization unit

An organizational unit (OU) is a subdivision within an Active Directory into which you can place users, groups, computers and others organizational units.

- Objects

Are like Users, Groups, Contacts, Shared Folder, Printers etc.....

- Attributes

Objects have attributes that define and describe them. Form example, the attributes of a user object might include the user's name, e-mail address, and phone number.

Active Directory "Additional Information"

- Forest in AD

Forest is used to define an assembly of AD domains that share a single schema for the AD. All DC's in the forest share this schema and is replicated in a hierarchical fashion among them.

- AD runs on LDAP(lightweight Directory Access Protocol) protocol.

A lot of people mistake LDAP as an active directory. Remember that LDAP is a protocol uses for directory services. There are different directory services e.g: Active directory on windows and OPENLDAP on Linux.

- SYSVOL

The sysVOL keeps the server's copy of the domain's public files. The contents such as users, group policy, etc. of the sysVOL folder are replicated to all domain controllers in the domain.

- AD Database

AD database is saved into in C:\WINDOWS\NTDS