Find Lab Exercise at this link

https://www.youtube.com/watch?v=LloRvia6-MU

Please go through this article before going to the Lab exercise

Superscope

A *superscope* enables the DHCP server to provide addresses from more than one scope to clients on the same physical subnet. This is helpful when clients within the same subnet have more than one IP network and thus need IPs from more than one address pool. Microsoft's DHCP snap-in allows you to manage IP address assignment in the superscope, though you must still configure other scope options individually for each child scope.

Creating IPv4 Multicast Scopes

Multicasting occurs when one machine communicates to a network of subscribed computers rather than specifically addressing each computer on the destination network. It's much more efficient to

multicast a video or audio stream to multiple destinations than it is to

unicast it to the same number of clients, and the increased demand for

multicast-friendly network hardware has resulted in some head

scratching about how to automate the multicast configuration.

In the following sections, you will learn about MADCAP, the protocol

that controls multicasting, and about how to build and configure a

multicast scope.

Understanding the Multicast Address Dynamic Client Allocation Protocol

DHCP is usually used to assign IP configuration information for

unicast (or one-to-one) network communications. With multicast,

there's a separate type of address space assigned from 224.0.0.0

through 239.255.255.255. Addresses in this space are known as

Class D addresses, or simply *multicast addresses*. Clients can

participate in a multicast just by knowing (and using) the multicast

address for the content they want to receive. However, multicast

clients also need to have an ordinary IP address.

How do clients know what address to use? Ordinary DHCP won't help because it's designed to assign IP addresses and option information to one client at a time. Realizing this, the Internet Engineering Task Force (IETF) defined a new protocol: *Multicast Address Dynamic Client Allocation Protocol (MADCAP)*. MADCAP provides an analog to DHCP but for multicast use. A MADCAP server issues leases for multicast addresses only. MADCAP clients can request a multicast lease when they want to participate in a multicast.

DHCP and MADCAP have some important differences. First you have to realize that the two are totally separate. A single server can be a DHCP server, a MADCAP server, or both; no implied or actual relation exists between the two. Likewise, clients can use DHCP and/or MADCAP at the same time—the only requirement is that every MADCAP client has to get a unicast IP address from somewhere.