# Homework M1: Storage Solutions

Main goal is to build further on what was demonstrated during the practice

## Prerequisites

Create an additional\* virtual machine (member server named HWM2 for example) on your host or the solution you use. You can use either Desktop Experience or Core installation (Standard or Datacenter Edition)

Machine should have 2 network adapters\*\*:

* First - connected to a common network with the AD domain controller
* Second - connected to a dedicated and isolated network (some private switch)

Machine should have 5 hard disks all dynamically expanding type:

* First - system disk
* Second and Third – each 10 GB in size. Must be set with media type SSD
* Fourth and fifth – each 20 GB in size. Must be set with media type HDD

\* Setup can include two (one DC and this machine) or three (one DC, this machine and another station) machines. No matter which configuration you will choose, you must add a second network adapter to one of the other machines and connect it to the same private switch, that you used for the new machine

\*\* Both network adapters connected to the private switch must have static IP addresses in one and the same private network of your choice

Please note that the new machine will be referenced as HWM2 and the existing one will be referenced as EM1

## Tasks

1. (HWM2) Create a tiered storage pool that includes all four non-system disks
2. (HWM2) Create a virtual disk in mirror mode that consumes all the available space in the pool
3. (HWM2) Create a volume that occupies the entire disk, format it with NTFS with allocation unit of 64KB and assign it a drive letter X
4. (HWM2) Configure the new machine to act as an iSCSI Target
5. (HWM2) Create new dynamically expanding iSCSI virtual disk 10GB in size and store it on drive X
6. (EM1) Configure one of the other machines (the one that you added a second network adapter) as iSCSI initiator and connect it to the LUN created earlier
7. (EM1) Initialize and format the new drive with NTFS and assign it a drive letter S
8. (EM1) Create a folder S:\Shared Data and share it for Everyone (Full Control) and set NTFS permissions for Domain Users (Read) and Domain Admins (Full Control)

## Proof

Prepare a document that show what you accomplished and how you did it. It can include (not limited to):

1. The commands you used to achieve the above tasks
2. A few pictures showing intermediary steps or results