LAB-1- password policy and Linux access

JAY VASANI

8885487

INFO-2290

Professor Darshveer Dhingra

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**PART-1**

**DESCRIPTION:**

* Before starting the lab there are few requirements to finish the lab activity without any error. Firstly, we need and domain controller VM and a Linux host.
* This part is basically about configuration of the password policy into the active directory environment.
* First step is to create staff OU into the active directory domain controller virtual machine.
* After this in the staff OU I have created 5 groups named G\_HR, G\_Finance, G\_Engineering, G\_Sales, G\_Ops
* I also created users with the same naming conventions. For instance, User\_HR
* After these steps I have created the password policies by referring the assignment document.
* I also have checked the password policy by trying to setup the password that does not meet the policy requirement and got error message for that.
* This part proves that the password policy is working well, and it also worked with the right password policy.

**SCREENSHOTS:**

**This is the error when the password is not set according to the policy**

A screenshot of a computer

Description automatically generated

**Here is the screenshot showing the properties of HIGH-LEVEL password policy** A screenshot of a computer

Description automatically generated

**Here is the screenshot showing the properties of STANDARD-LEVEL password policy**A screenshot of a computer

Description automatically generated

**Here is the screenshot showing the properties of DEFAULT password policy**A screenshot of a computer

Description automatically generated

**REFLECTION:**

Basically, this part of the assignment gave me hands on practice on the password policy and configuring the remote access. To configure the password policy, one should have the critical knowledge of the security principals. I also gained some knowledge about the secure authentication protocols.

In the standard level there was an error when we do minimum password age to 0 so I have done 1 as minimum password age this is the only error I faced in this part. it was very easy and full of step-by-step knowledge about the critical role of security. This lab part gives experience of how password policies are used in real world.

**PART-2**

**DESCRIPTION:**

This part was all about configuration of the default password policy on the Linux virtual machine. And it is also connected to align the standard level password policy from the first part of the assignment. Firstly, there should be a group made named G\_Ops and user in it as well. After that we test the password policy compliance. After this I made group named G\_Engineering and user into it and I set the user’s password age setting as per the high-level policy. This activity makes it sure that both the groups are having the specific password security standards. I uploaded the screenshot which clearly shows the different password aging for the users and provide evidence about the specific security standards.

**SCREENSHOTS:**

**This screenshot shows the packet I installed by using yum command**A computer screen shot of a computer program

Description automatically generated

**This screenshot shows the process of the password policy configuration.A screenshot of a computer

Description automatically generated**

**This is the screenshot with the different password aging policy for the users and which provide evidence that the policy is working good with specific security standards for different groups.** A computer screen shot of a computer

Description automatically generated

**REFLECTION:**

This part was a bit challanging to complete where I found some erros while stting up th policies but at the end got success after a lot troubleshooting. Creatio of the user and groups like G\_Ops and G\_Engineering was easy because I did lots of practice on that. Setting up the different password age policy for the G\_Engineering provides knowledge about the flexibility of linux system about security standards. This part of the lab improved my understanding about the system security and password policy into linux system.

**PART-3**

**DESCRIPTION:**

This part of the assingment was about configuring SSH access from the windows to linux using the digital signature for authorization. Where we firstly create the user account on the linux system, after that I have created the key pair and did configuration to it. After configuration my linux user got authantication via SSH when meanwhile it got the access using the digitakl signature instead or the username and password. I logged into the linux machine via putty without any username and password and got access to it via digital authantication. Iprovided the final screenshot showing the evidence of success to it.

**SCREENSHOT:**

**This csreenshot shows that my authorized\_keys are successfully sent from windows to linux machine**

A screenshot of a computer program

Description automatically generated

**This is the final screenshot providing the evidence that I have got access to the linux machine via putty with digital authentication.A computer screen with white text

Description automatically generated**

**REFELECTION:**

This was the very important activity to provide enhance security.this activity was hard to achive as well but I have followed proffesor jim dickson’s video to complete this . I have got hands on practice of generating key pair on windows workstation and deploying it to for authentication to the linux system. After the activity and succesfully logging into linux with digital authentication I got knowledge about managing the cross platform connection securely**.**

**PART-4**

**DESCRIPTION:**

This part of the assingment was all about configuring the VNC GUI access from windows to linux. I started with installing all the packages needed to enable VNC connections to Gnome desktop on the linux system. I also did set up th VNC client on my windows device to connect with linux host. After that I verified and test that I got secure VNC connection by using the individual account.i provided the screenshot showing that my VNC session is active and working good without any errors.

**SECREENSHOTS:**

**This screenshot showing the authentication process to my VNC server**A screenshot of a computer

Description automatically generated

**This screenshot provide evidence that I have securely logged in to my VNC session**A screenshot of a computer

Description automatically generated

**REFLECTION:**

This was the hardest part throughout the lab and I also foloowed proffesor jim dickson’s video with some internet sources to finish the task succesfully. This part shows the importance about secure remote connections. This part gave me hands on practice on the remote desktop protocols and security connectins. This part also gave me knowledge on how to troubleshoot the remote desktop access and which is used in real world for the IT technicians. This part was also about setup and testing of their setup where the screenshot shows the succesful test of the VNC GUI access.

**REFRENCE:**

I took the refrence from proffesor JIM DICKSON’S video provided to e-conestoga course shell. It helped me a lot to finish the lab succesfully.

As well as I went throught the PDF about the LAB-1