	Assignment 2.
	alter to the state of the state
1)	File permissions in linux!
eta A. T	(a) Read: gives user the authority to - open and sead a file
The Is	(b) whit; on a file - aire thank to dit to the
	(b) Write: on a file-gives authority to modify content on a directory-gives authority to nemove and nename files.
Marie 1	files.
-34	(c) Execute: gives user the fermission to execute John a program
	And the same of th
2)	(a) PING- this command is used to test connectivity of wo 2 hosts.
	(h) TPACCE !
E II Be	(c) IP CONFIG - used to display details I to
10.134	(c) IP CONFIG - used to display details of the devices IP address configuration (d) ROUTE - this commend
	(d) ROUTE - This some
- 1	or wish packets).
	Changes can be made to use growing table using :- Route ADD, ROUTE DELETE, ROUTE CHANGE.
,	ROUTE DELETE, ROUTE CHANGE.
3)	The state of the s
	HTTP " (Hyper Tent Transfer Probocal) (Hyper Tent Transfer Probocal Sewise)
	- Lacks security 1- Provides secure connection 6/w server and client.
	- I and dient.
	Transfers data in plain text Transfered data in encrypted form
	- operation on port 80 - operation on port 443
-	
	faster than https: - Slower, since it consumes computation bower to encupt the communication channel.
	o donnee ,

Firewall acts as a filter between the device and the internet. Based on predefined parameters (scales, it can control the fassage of data (both inflow and outflow) from the system.

Fixwall configuration:

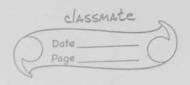
Step 1: Secure un frewall.

- (a) update frewall to latest firmwan.
- (b) Deleti; disable, or ne name any default cuser accounts Change all default passowerds (use only complex and secure passwords).
- In case of multiple admins managing to firewall, create additional administrator accounts with limited privileges.
- (d) disable simple network management probocol or enfigure it to use secure community string

Step 2: Architect firewall gones and IP Addresses.

- Identify the valuable assets on your network and plan out your network structure so that un assests can be grouped and placed into networks based on similar sensitivity-level and function.

- The more time zones you create, more secure is the nedwork.
 - Managing more zones grequires additional time and



	step3:	Configure access control lists
		- to determined which traffic needs to be able to
	SERVE L	flow into and out of each your.
		- Acres control lists permit traffic throo' the firewall
		ore applied to each interface or subsinterface of the
	any hours	firewall.
		- Make ACLS specific to the enact source and/or
	a amed	allehnahan It a locas and pore yours
		- Marke seese to have a "deny all" stule at the End of every ACL list
		end of every ACL let
	Fit Small	- Apply both imbound and out bound Ales to
		each interface and subinterface on the Si ewall.
	4.4	other
	Step4	:- Configure/firewall services & logging
411	1515 - 211	- configure any other sonices that the second many
		- configure any other services & logging - configure any other services that the fixwall many provide Eg: - methoork time probocol g intension prevention enternete.
	A STATE OF THE STA	2/2
		- configur tufrewall to report to logging server.
Y	0	and the state of the same of t
	Steps	Test firewall configuration. Testing should include both welnerability scanning and penetrotion testing.
	4	Teshing should include both valencerating of scanning
		and percent control
	200	Bright Charles and the second of the second
	Eng	hits the second of the second
444	Lancas and a	di-man remit - in the state of
	100000 -1	

-	
5)	Prerequisites for server configuration:
	(a) User configuration
	- must make sure to change un swot pursword
	in case it was not part of the assetup.
	(b) Network configuration. enable network connectivity by assigning server an IP address and hostname.
	assigning server an I Paddress and hostname.
	(c) Package management:
	(c) Package management: - make sure to install the packages you need (in case they are not part of the distribution
	(in case they are not part of the distribution
	Burg water)
	(d) Update installation and configuration:
	- once installed, make sun everything is
	(d) Update installation and configuration: - once installed, make sure everything is updated to path any vallerabilities
	(e) NTP infiguration:
	(f) Secure SSH:
	(f) Secure SSH!
) - SSH is the main stempt access method for linex
	distributors
	- Disable noots ability to SSH it siemotely.
	(a) Tromon Configuration
	- set the right applications to autostart an reboot
	- turn off any unwanted darmons.
	(h) SELinux and Further Hardening
	- set the right applications to autostart an reboot - turn off any unwanted daemons. (In) SELinux and Further Hardening - Test your configuration with SELinux enabled.
	(2) logging.