NETWORK Cheat Sheet

Question	Answer
What is a network ?	A nerwork is a group of connected, communicating devices.
What is Internet?	An internet is two or more networks that communicates with each other.
What is a Protocol?	A protocol is a set of rules that governs communication. The key elements are ofa protocol are syntax, semantics and timing. A protocol defines what is communicated, how it is communicated and when it is communicated.

Protocols	Description	
HTTP	Hypertext Transfer Protocol	This Internet Protocol defines how data is transmitted over the internet and determines how web servers and browsers should respond to commands
FTP	File Transfer Protocol	FTP s a network protocol for transmitting files.
SMTP	Simple Mail Transfer Protocol	SMTP is the basic standard that mail servers use to send email to one another across the internet.
IP	Internet Protocol	This is a protocol, or set of rules, for routing and addressing packets of data so that they can travel across networks and arrive at the correct destination.
TCP	Transmission Control Protocol	A connection-oriented communications protocol that facilitates the exchange of messages between computing devices in a network.
UDP	User Datagram Protocol	A communications protocol that facilitates the exchange of messages between computing devices in a network.
SSH	Secure Socket Shell	This protocol provides secure access to a computer, even if it's on an unsecured network.
SMS	Short Message Service	To send and receive text messages over cellular networks
DHCP	Dynamic Host Configuration Protocol	Is a network management protocol used to automate the process of configuring devices on IP networks

Acronyms	Description
DNS	Domain Name System
ISP	Internet Service Provider
LAN	Local Area Network
HTML	HyperText Markup Language
URL	Uniform Resource Locator
CRUD	Create, Read, Update, Delete
REST	REpresentational State Transfer
WAN	Wide area network

Purposes	Methods of request
GET	request to read, fetch a document (text, image, script, etc)
HEAD	request to read just the header of a document
POST	request to update a collection, append a named resource
PUT	request to write over, store a new document on the server

DELETE	request to remove a document from the server
TRACE	to invoke a remote loop-back of the request message for diagnostics
CONNECT	for use with a proxy server
LINK	connect two existing resources
UNLINK	break an existing connection between two resources
PATCH	method, used to apply partial modifications to a resource

HTTP Status Codes	Descripton	HTTP Server Status
200	OK	The request status is reported by a 3-digit code
201	Created	Five groups of code, defined by the first digit
202	Accepted	
204	No Content	**1xx:** Informational-Request received, continuing process
301	Moved Permanently	**2xx:** Success-The action was successfully received, understood, and accepted
302	Moved Temporaliy	**3xx:** Redirection-Further action must be taken in order to complete the request
304	Not Modified	**4xx:** Client Error -The request contains bad syntax or cannot be fulfilled
400	Bad Request	**5xx:** Server Error -The server failed to fulfill an apparently valid request
401	Unauthorized	
403	Forbidden	
404	Not Found	
500	Internal Server Error	
501	Not Implemented	
502	Bad Gateway	
503	Service Unavailable	

HTTP methods

GET (get resource)	SUCCESS = 200 OK	
	FAILURE = 404 NOT FOUND, 405 NOT ALLOWED, 403 FORBIDDEN	
POST (new resource)	SUCCESS = 201 CREATED	
	FAILURE = 401 UNAUTHORIZED, 409 CONFLICT, 404 NOT FOUND	
POST (update resource)	SUCCESS = 200 Ok	PUT method is used to modify the complete record
	FAILURE = 204 NO CONTENT, 404 NOT FOUND, 405 METHOD NOT ALLOWED	Can also be used as UPSERT. If ressource does not exist, create ressource if ressource exist update ressource.

DELETE (delete resource)	SUCCESS = 200 OK	
	FAILURE = 401 UNAUTHORIZED, 404 NOT FOUND, 405 METHOD NOT ALLOWED	
PATCH	SUCCESS = 200 Ok	Patch method is used for partial modification of the record
	FAILURE = 204 NO CONTENT, 404 NOT FOUND, 405 METHOD NOT ALLOWED	
HEAD	SUCCESS = 200 OK	The HTTP HEAD method requests the headers that would be returned if the HEAD request's URL was instead requested with the HTTP GET method. For example, if a URL might produce a large download, a HEAD request could read its Content-Length header to check the filesize without actually downloading the file
	FAILURE = 404 NOT FOUND	
OPTIONS	SUCCESS = 200 OK	Identifying allowed request methods
	FAILURE = 404 NOT FOUND	

Port Number	Description
1	TCP Port Service Multiplexer (TCPMUX)
5	Remote Job Entry (RJE)
7	ECHO
18	Message Send Protocol (MSP)
20	FTP — Data
21	FTP — Control
22	SSH Remote Login Protocol
23	Telnet
25	Simple Mail Transfer Protocol (SMTP)
29	MSG ICP
37	Time
42	Host Name Server (Nameserv)
43	WhoIs
49	Login Host Protocol (Login)
53	Domain Name System (DNS)
69	Trivial File Transfer Protocol (TFTP)
70	Gopher Services
79	Finger
80	HTTP
103	X.400 Standard
108	SNA Gateway Access Server
109	POP2
110	POP3
115	Simple File Transfer Protocol (SFTP)

118	SQL Services			
119	Newsgroup (NNTP)			
137	NetBIOS Name Service			
139	NetBIOS Datagram Service			
143	Interim Mail Access Protocol (IMAP)			
150	NetBIOS Session Service			
156	SQL Server			
161	SNMP			
179	Border Gateway Protocol (BGP)			
190	Gateway Access Control Protocol (GACP)			
194	Internet Relay Chat (IRC)			
197	Directory Location Service (DLS)			
389	Lightweight Directory Access Protocol (LDAP)			
396	Novell Netware over IP			
443	HTTPS			
444	Simple Network Paging Protocol (SNPP)			
445	Microsoft-DS			
458	Apple QuickTime			
546	DHCP Client			
547	DHCP Server			
563	SNEWS			
569	MSN			
1080	Socks			