1. What is the history of the internet?

* The Internet is a worldwide system of interconnected computer networks that use the TCP/IP set of network protocols to reach billions of users. The Internet began as a U.S Department of Defense network to link scientists and university professors around the world.
* The history / development of the internet began in the early 1960’s. Although different scientists and visionary thinkers have anticipated and toyed with the idea of existence of worldwide networks of information previously in the early 1900’s it was not until Leonard Kleinrock published his paper entitled “Information flow in large communication Nets” on May 31 1961 the first practical schematics for the internet had arrived. Later on Robert Taylor with the ideas of Kleinrock and Lickder helped create the idea of the network ARPANET (Later to be known as the internet).
* Initially, the internet was a US defense department project that was born out of the Cold War and a desire to have armed forces communicate over a connected, distributed network.
* The first workable prototype of the Internet came in the late 1960s with the creation of ARPANET, which was originally funded by the U.S. Department of Defense, ARPANET used packet switching to allow multiple computers to communicate on a single network.
* On October 29, 1969, ARPANET delivered its first message, a “node-to-node” ,communication from one computer which was located in a research lab at UCLA to another computer which was located at Stanford) The message “LOGIN” was short and simple, but it crashed and the Stanford computer only received the note’s first two letters, “Lo”. Hence, “LO” was the very first internet message to ever be sent.
* In 1969 there were only 4 nodes connected TCP (Transfer Communication Protocol) is the standard set of codes that allow computers in the internet to communicate with one another. The TCP design was designed by Vinton cerf and Robert kahn in 1973 later which later was split into TCP/IP.
* January 1, 1983 is considered the official birthday of the Internet. Before this breakthrough, the various computer networks did not have a standard way to communicate with each other. ... ARPANET and the Defense Data Network officially changed to the TCP/IP standard on January 1, 1983, hence marking the birth of the Internet. The TCP/IP still servers us as a primary middle layer tool between a computer and a website.
* Name change
* Number of nodes or connected computers
* Network reach
* Gotten its name from the is based military Arpanet
* In the early days, used [Interface Message Processors](http://www.walden-family.com/public/1970-imp-afips.pdf) (IMPs), which were computers designed to organize and receive the data coming in and out of the network.
* they were the earliest versions of the modern router.
* ARPANET relied on leased telephone lines, much like the commercial internet did in the years that followed. Although the [first phone modem](https://www.techradar.com/news/internet/getting-connected-a-history-of-modems-657479) was invented in 1958 by Bell, which could just send data to other Bell devices, the first modem designed to use with a PC didn’t arrive until 1977.
* Subscribers would almost always rely on their existing phone line for connection to the internet, meaning that no one could use the phone when someone was on internet.
* Broadband modems act a little differently than their dial-up predecessors in that they do not need to call out over the phone line to your internet service provider to establish a connection to the internet—they stay connected unless they’re turned off.
* In the US today, most broadband connections come into homes through [the same connections](https://www.lifewire.com/definition-of-broadband-modem-817451) used for cable TV, and don’t tend to require access to a telephone line to connect.
* Coupled with the advent of wifi, broadband has revolutionized the way that people connect to the internet. Before wifi and broadband, accessing the internet was a very static and slow experience, requiring someone to sit in front of a large computer, physically connected to a modem, to access the web. But when wifi started to gain popularity, it made the internet accessible wherever someone had a laptop, tablet, or Palm Pilot and wifi connection. The earliest versions of wifi were implemented in the mid-1990s, but it wasn’t until Apple [included the technology](https://www.cultofmac.com/439013/today-in-apple-history-ibook-ushers-in-a-wi-fi-revolution/) in the iBook laptop in 1999, as well as  other models in the early 2000s, that it really started to kick off.
* The story of mobile broadband began in the early 90’s with the advent of 2G—the first generation of wireless to be digital. 2G’s capabilities and 64 Kbps speeds allowed for basic data services and SMS text messaging. Then came 3G in 2001, which offered faster data transfer rates, enabling basic mobile internet and the games, music streaming and video calling that followed.
* Because of its capability and convenience, mobile broadband has become the most popular way to go online. At the end of 2013, there were about 1.9 billion smartphone subscriptions in the world, and by the end of 2018, there were about 5.3 billion, a jump of about 180% in five years.
* In 1983 the connection grew to 5 cities namely UCLA, Stanford, UC Santa Barbara, the university of Utah and BBN.
* It was renamed to internet in 1984 when It connected 1000 hosts at different university and corporate labs
* The internet domain name system was created in 1984 to match complex ip addresses with easy to remember names ending in extensions as com, edu, gov, mil, org
* Today the internet links more than 440 million computers directly and millions more have internet access through private addressing schemes.
* In 1990 , Tim Bernres-Lee invented the world wide web as a method of publishing information in a hypertext format on the internet the web began to take off in 1993 after computer science student marc Andressen created the first popular web browser, known as MOSIAC. Since then the number of websites and web pages has exploded.
* Ecommerce burst on the scene in the mid-1990 and it’s been growing ever since both in total sales ans a percentage of all retail sales.

Security threats rise along usage 1988 the morris worm was the first major attack on the internet disabling 10 % of the internet host computers. Today hundres of more sinister attacks are aimed at internet users each day