Web Development

Introduction

The History of the Internet

First seeds...

1962

The idea of the internet initially started at **DARPA** (Defense Advanced Research Projects Agency, the central research and development organisation for the US Department of Defense.)

by J.C.R Licklider. He wrote a series of memos which described a globally interconnected set of computers through which everyone could quickly access data and programs.

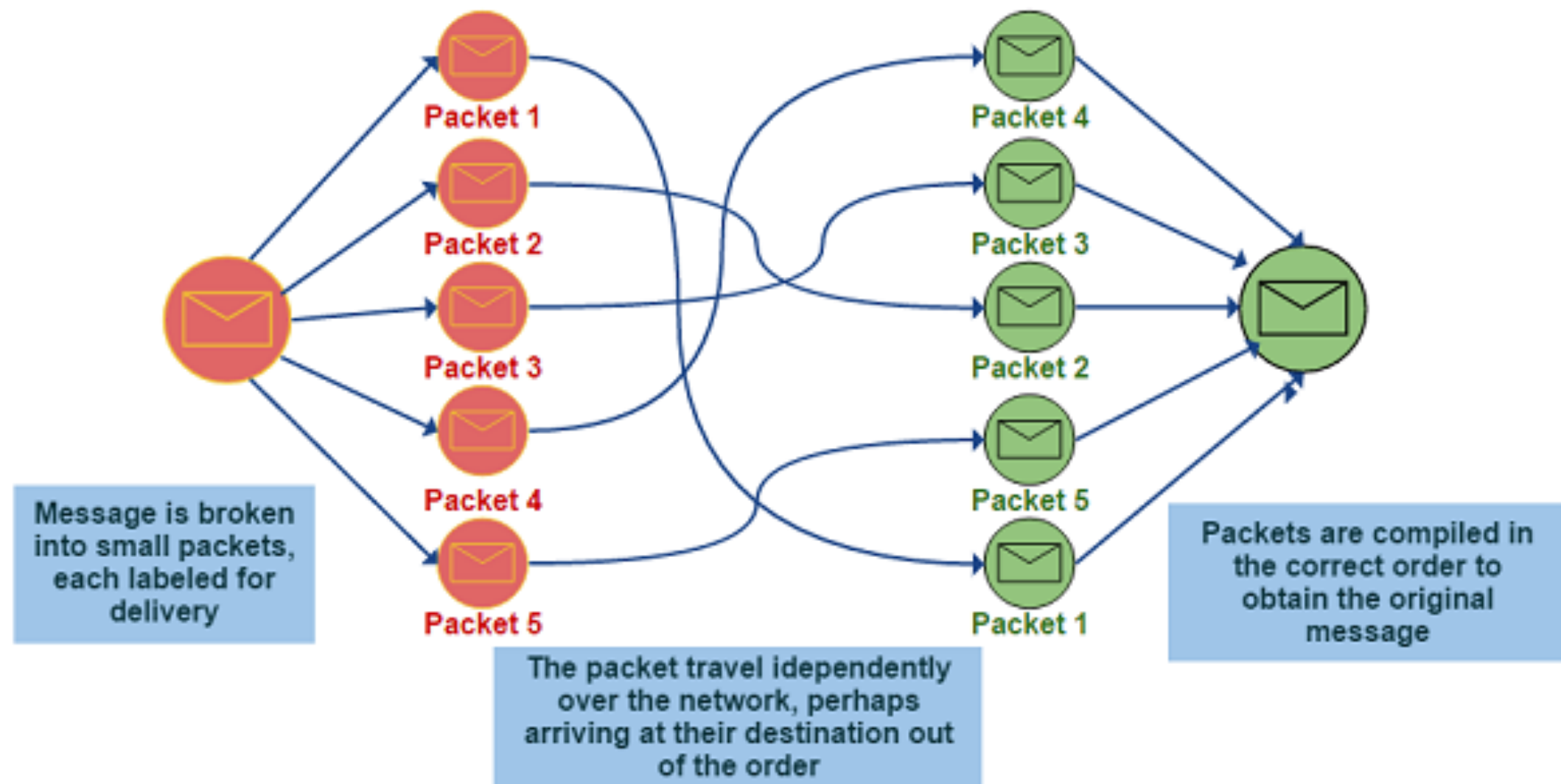This idea developed into the **ARPANET** by Licklider's successors.

First Message

October 29, 1969

UCLA student Charley Kline attempted to transmit the text "login" to a computer at the Stanford Research Institute over the first link on the ARPANET, which was the precursor to the modern Internet. After the letters "l" and "o" were sent, the system crashed, making the first message ever sent on the Internet "lo".

Why ARPANET?

In the 60's everything was connected through a circuit network. In the case of nuclear war, DARPA was concerned that different cities, e.g. Washington and L.A. would lose connection if a city was destroyed. The aim was to do away with circuits.

Moving away from a circuit network, the internet was created under the model of a packet switching network.

Message is broken into small packets, each labeled for delivery

The packet travel idependently over the network, perhaps arriving at their destination out of the order

Packets are compiled in the correct order to obtain the original message

Packet 1
Packet 2
Packet 3
Packet 4
Packet 5

Packet 4
Packet 3
Packet 2
Packet 5
Packet 1

Internet Packets Transmission

The Internet and the World Wide Web

Is there a difference?
What's the difference?

Why ARPANET?

The Internet: Started in the 60's as a communication network for DARPA. The internet can be thought of as the hardware, all of the cables, routers, servers, modems etc.

The World Wide Web: Started in the early 1990's. The world wide web is a service that runs on that hardware.
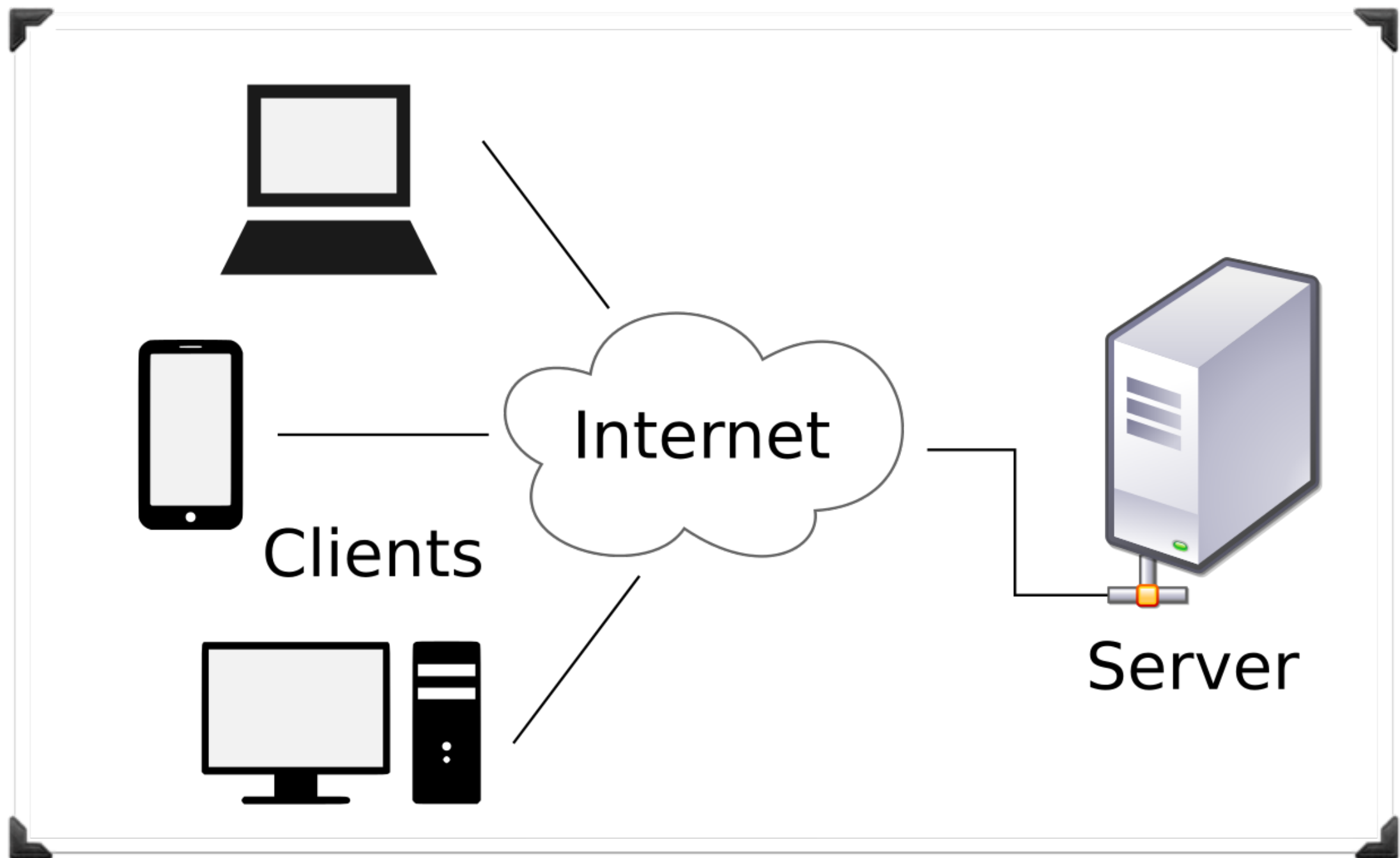
World Wide Web

The world wide web was created by Tim Berners-Lee.

In 1980, Berners-Lee got the idea for hypertext -text with links which can be clicked to take the user to another document.

In March1989, Berners-Lee wrote a proposal for a large hypertext database with typed links.

This then became the world wide web as we know it today.

Clients

Internet

Server

How the Web Works

1. A client makes an HTTP (HyperText Transfer Protocol) request.

2. A web server responds and serves the HTML (Hypertext Markup Language) document.

3. The web browser renders it and shows the user the web page.

HTML

JS

CSS

Structure

Functionality

Formatting

Separation of Concerns

Your Questions...