CEU | Universidad San Pablo

Introducción

Sistemas Web I

Grado en Ingeniería de Sistemas de Información
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v20240909

1969 – ARPANET

- Creado por ARPA (Advanced Research Projects Agency)
- Objetivo: Acceso a ordenadores remotos
- Conmutación de paquetes
- Telnet
- 4 nodos:
  - University of California, Los Angeles (UCLA)
  - Stanford Research Institute (SRI)
  - University of California, Santa Barbara (UCSB)
  - The University of Utah School of Computing

The ARPANET in December 1969

1985 – La primera .com

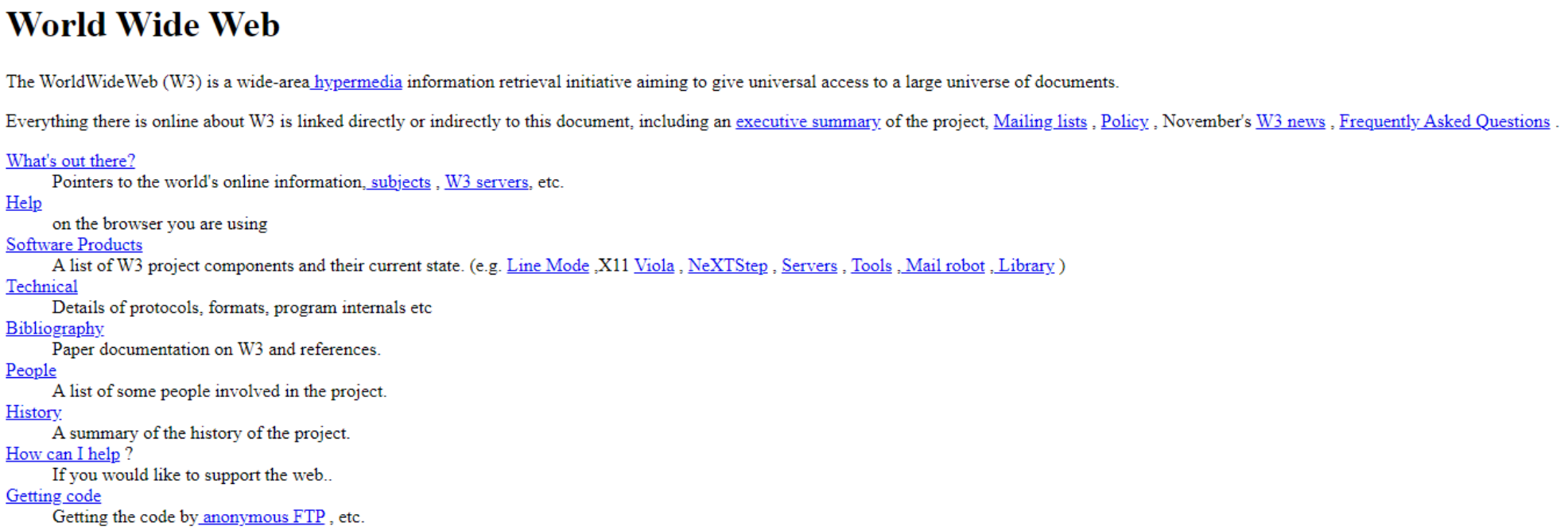
Primer dominio.com registrado: symbolics.com

Los primeros TLD (top-level domain):

- .mil - Military
- .edu - Educational Institutions
- .gov - Government
- .org - Organizations
- .net - Networking companies (technology)
- .com - Commercial Entities

1991 – Nace la World Wide Web

- Tim Berners-Lee creó la URL, HTML y HTTP
- La primera web: con instrucciones para crear webs



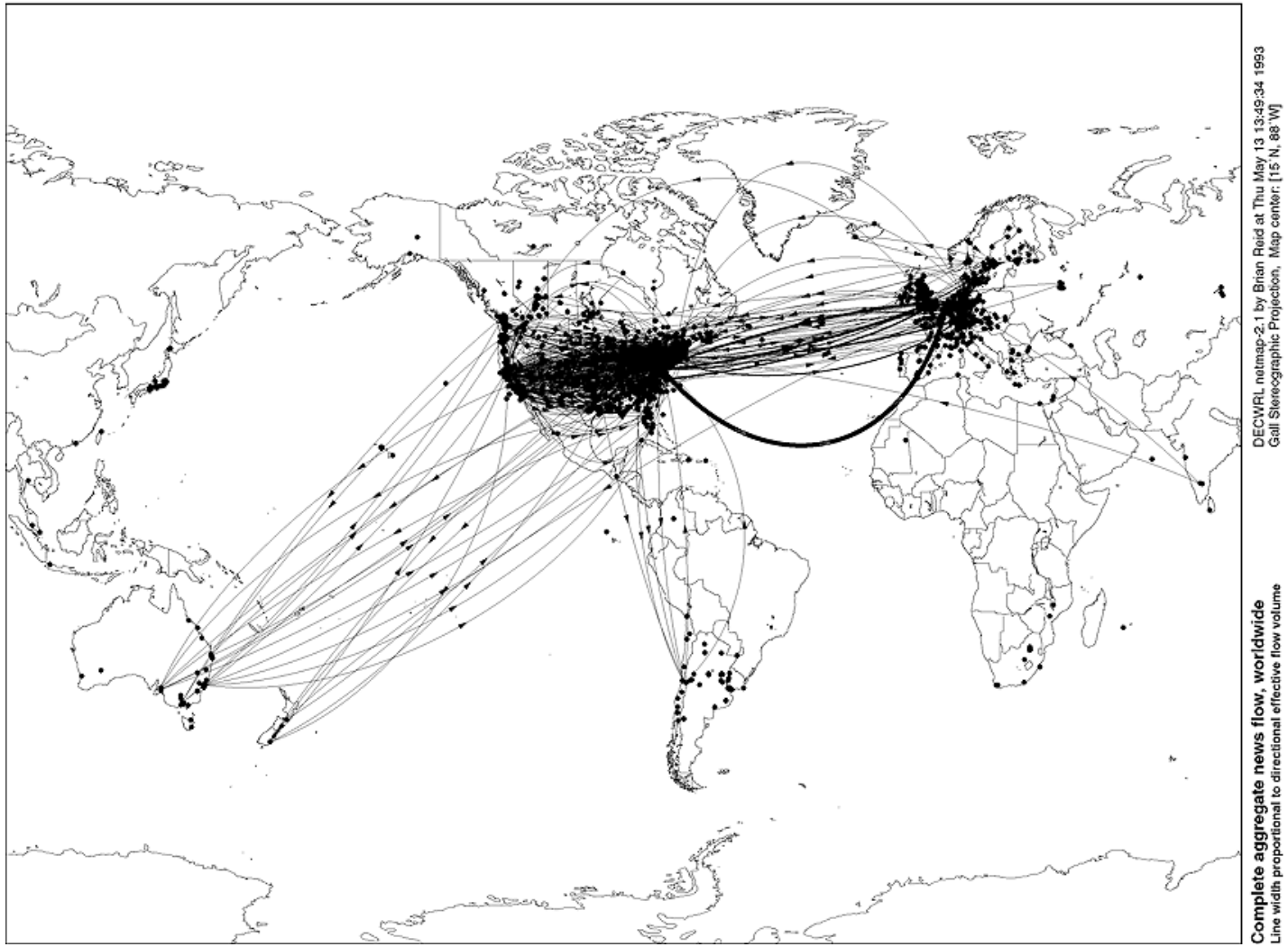
World Wide Web

The WorldWideWeb (W3) is a wide-area hypermedia information retrieval initiative aiming to give universal access to a large universe of documents.

Everything there is online about W3 is linked directly or indirectly to this document, including an executive summary of the project, Mailing lists , Policy , November's W3 news , Frequently Asked Questions .

What's out there?
Pointers to the world's online information, subjects , W3 servers, etc.
Help
on the browser you are using
Software Products
A list of W3 project components and their current state. (e.g. Line Mode ,X11 Viola , NeXTStep , Servers , Tools , Mail robot , Library)
Technical
Details of protocols, formats, program internals etc
Bibliography
Paper documentation on W3 and references.
People
A list of some people involved in the project.
History
A summary of the history of the project.
How can I help ?
If you would like to support the web..
Getting code
Getting the code by anonymous FTP , etc.

1993 – Red global



1994 – Tomorrow'sWorld

Video

1994 – Yahoo!

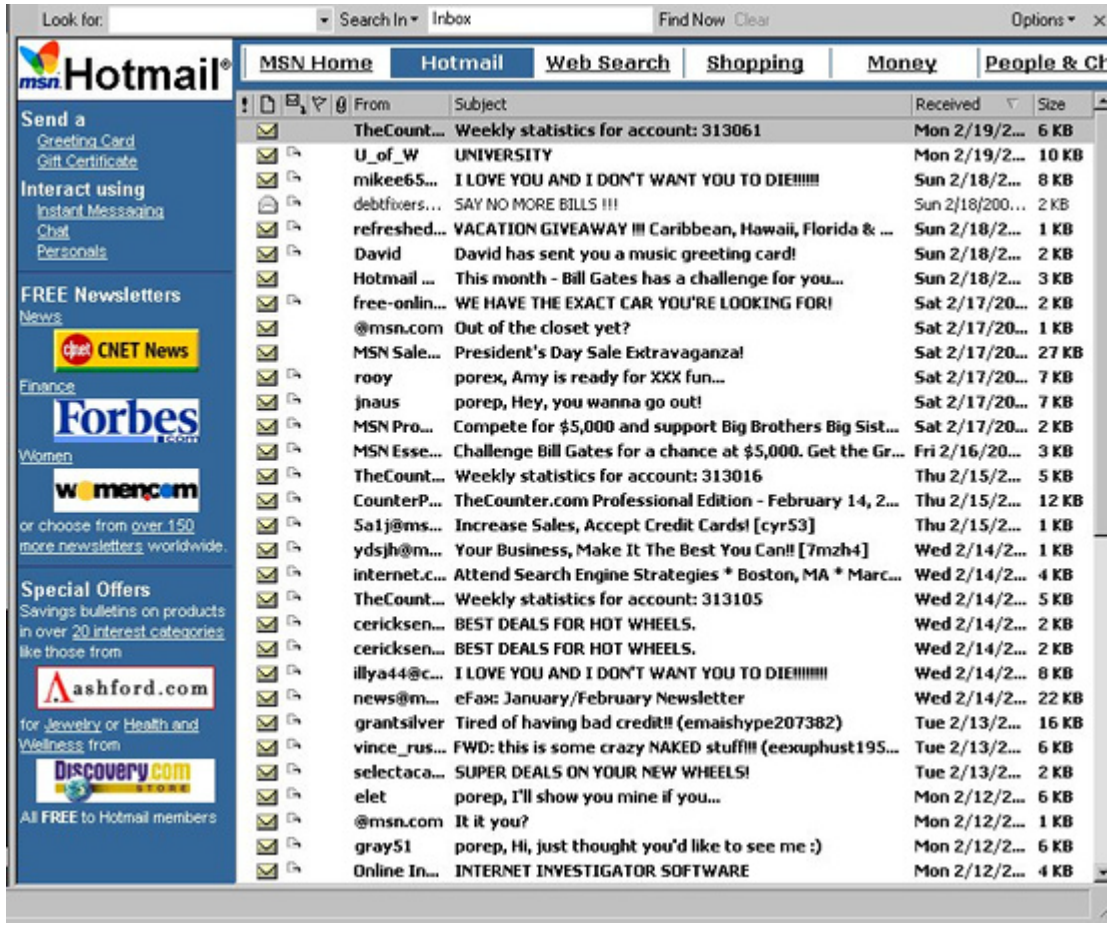
New
Cool
YAHOO!
Today's News
More Yahoos
YAHOO! CELEBRATE AND WIN.
HOLIDAY EXTRAVAGANZA CLICK HERE.
Get Local
Weekly Picks
Search
Options
Yellow Pages - People Search - City Maps -- Stock Quotes - Sports Scores
Arts and Humanities - Architecture, Photography, Literature...
Business and Economy [Xtra!] - Companies, Investments, Classifieds...
Computers and Internet [Xtra!] - Internet, WWW, Software, Multimedia...
Education - Universities, K-12, College Entrance...
Entertainment [Xtra!] - Cool Links, Movies, Music, Humor...
Government - 96 Elections, Politics [Xtra!], Agencies, Law, Military...
Health [Xtra!] - Medicine, Drugs, Diseases, Fitness...
News and Media [Xtra!] - Current Events, Magazines, TV, Newspapers...
Recreation and Sports [Xtra!] - Sports, Games, Travel, Autos, Outdoors...
Reference - Libraries, Dictionaries, Phone Numbers...
Regional - Countries, Regions, U.S. States...
Science - CS, Biology, Astronomy, Engineering...
Social Science - Anthropology, Sociology, Economics...
Society and Culture - People, Environment, Religion...
Yahooligans! - Yahoo! Shop - Yahoo! Internet Life
Daily Picks - Random Yahoo! Link - Weekly Picks
National Yahoos - Canada - France - Germany - Japan - U.K. and Ireland
Yahoo! Metros - Chicago - Los Angeles - New York - San Francisco Bay Area
How to Include Your Site - Company Information - Community Outreach Calendar

1995 – Amazon

- Tienda de libros

1996 – Hotmail

- Uno de los primeros proveedores de email gratuitos
- Comprado por Microsoft en 1997



1996 – Archive.org

- Biblioteca digital
- 99+ Petabytes de información almacenada
- 625 mil millones de páginas web
- Wayback Machine
- Computer Magazines

1997 – Wi-Fi

La conexión inalámbrica permitió hacer crecer enormemente los dispositivos que se podían conectar a Internet

1998 – Google

- Salió a bolsa en 2004

2001 – Wikipedia

HomePage

Revision as of 09:45, 20 December 2001 by Malcolm Farmer (Talk) *(date)*
(diff) ← Older revision | Latest revision (diff) | Newer revision → (diff)

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Welcome to Wikipedia, a collaborative project to produce a complete encyclopedia from scratch. We started in January 2001 and already have **over 19,000 articles.** We want to make over 100,000, so let's get to work--*anyone* can edit any article--copyedit, expand an article, write a little, write a lot. See the Wikipedia FAQ for information on how to edit pages and other questions.

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Current Events and Breaking News
Encyclopedia articles about topics behind the news.
2001 U.S. Attack on Afghanistan - More current events

Philosophy, Mathematics, and Natural Science
Astronomy and Astrophysics - Biology - Chemistry - Earth Sciences - Mathematics - Philosophy - Physics - Statistics

Social Sciences
Anthropology - Archaeology - Economics - Geography - History - History of Science and Technology - Language - Linguistics - Parapsychology - Political Science - Psychology - Sociology

Applied Arts and Sciences
Agriculture - Architecture - Business and Industry - Communication - Computer Science - Education - Engineering - Family and Consumer Science - Health Sciences - Law - Library and Information Science - Public Affairs - Technology - Transport

Culture
Classics - Cooking - Critical Theory - Dance - Entertainment - Film - Games - Hobbies - Literature - Music - Opera - Painting - Recreation - Religion - Sculpture - Sports - Theater - Tourism - Visual Arts and Design

Other Category Schemes
About Wikipedia category schemes - Complete list of encyclopedia topics - Library of Congress catalog scheme - Dewey Decimal System - Wikipedia arranged by topic

2004 – Facebook

- Primera red social
- Inicialmente llamada Facemash
  - Red social privada en la universidad de Harvard

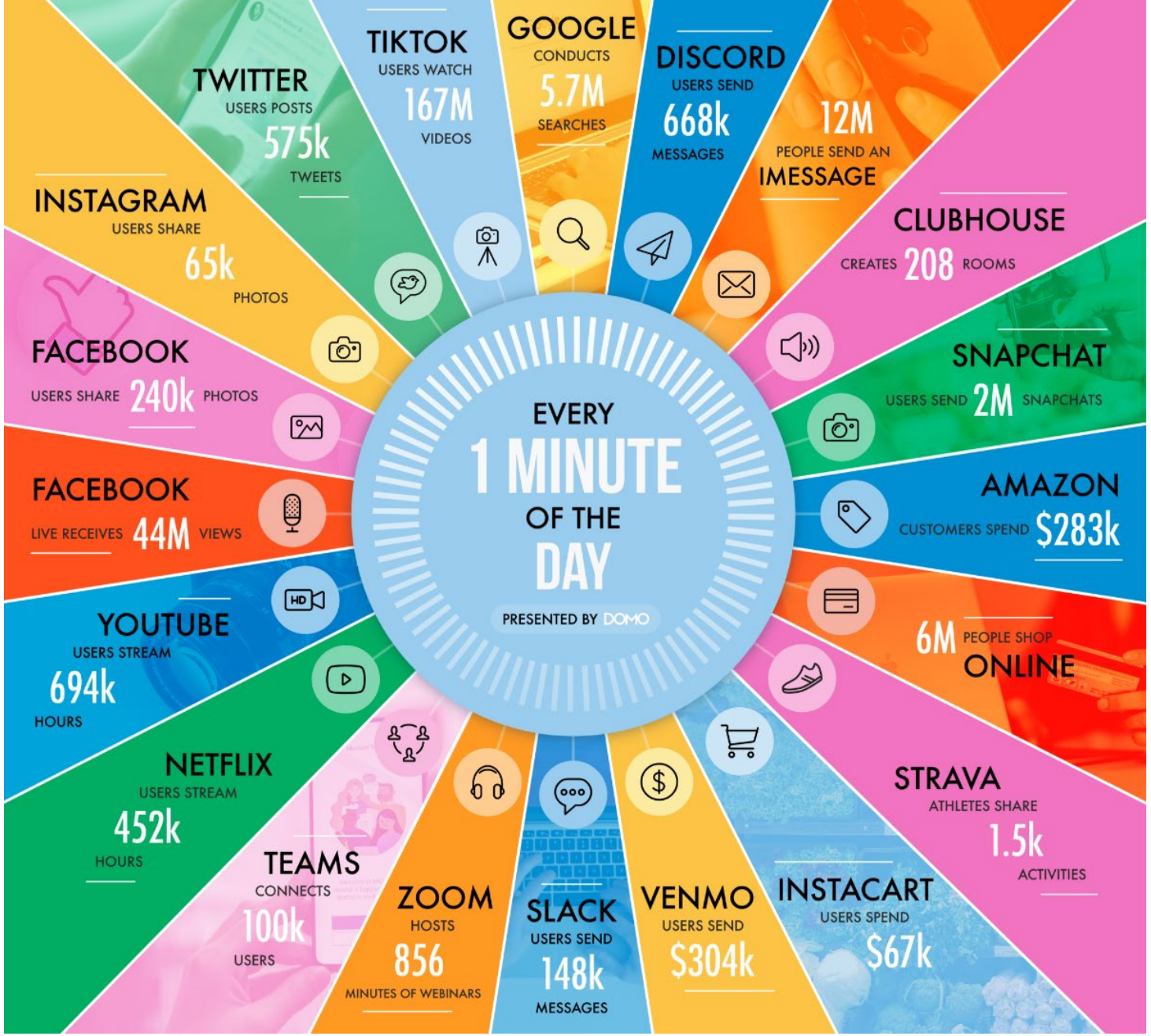
2005 – YouTube

Internet – Usuarios

	1990	1995	2000	2005	2010	2015	2020	2023
World population	5300 M	5700 M	6100 M	6500 M	6900 M	7400 M	7750 M	8100 M
Users worldwide	2.6 M 0.05%	39.1 M 0.7%	414 M 6.7 %	1000 M 16%	2000 M 29%	3000 M 40%	4700 M 60%	5400 M 67%
Users in the developing world				8%	21%	41.3%	47%	53%
Users in the developed world				51%	67%	81%	86.6%	90%
Sources: ourworldindata / International Telecommunications Union								

DIGITAL 2023
JULY GLOBAL STATSHOT REPORT
THE ESSENTIAL GUIDE TO THE WORLD'S CONNECTED BEHAVIOURS
we are social
Meltwater

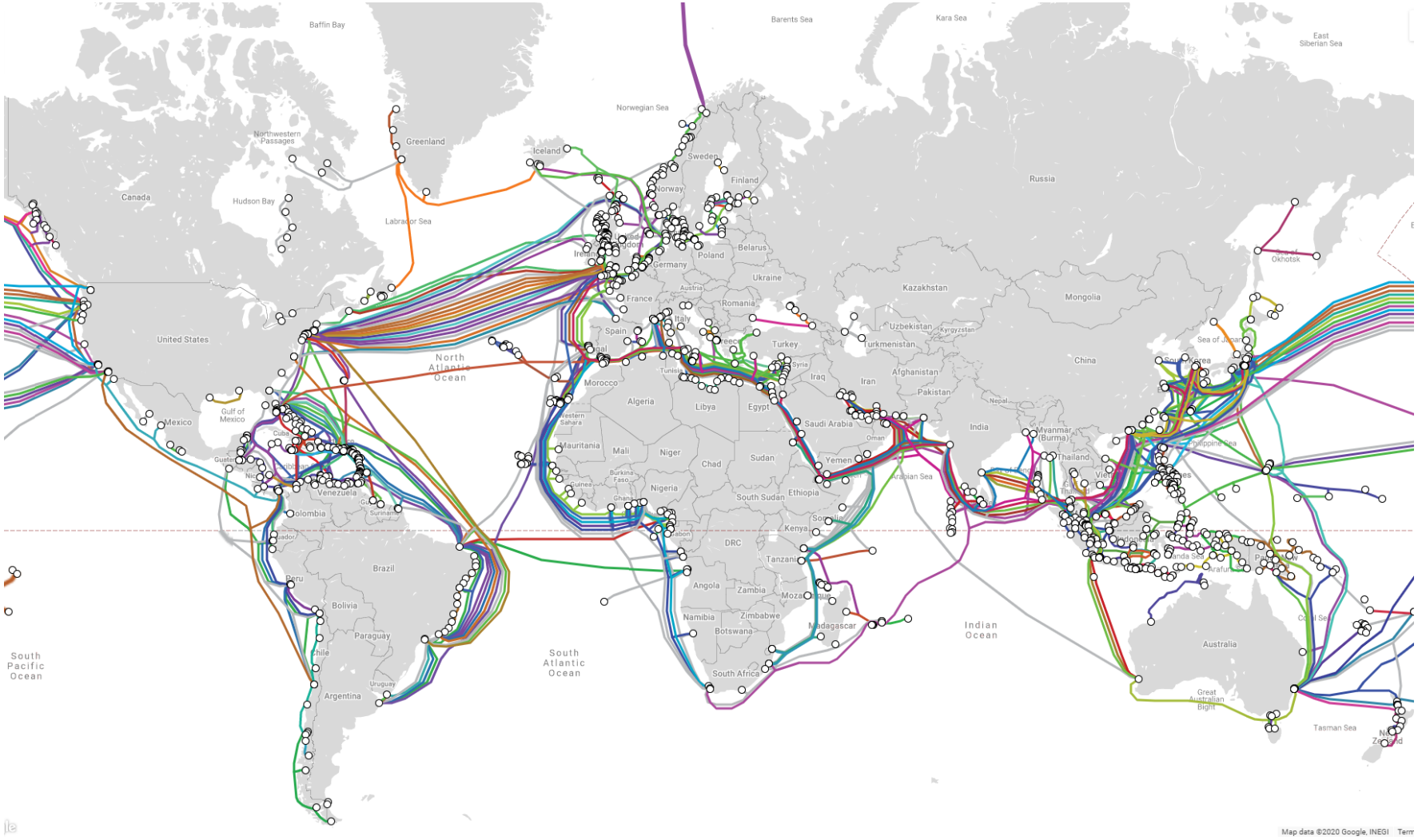
Link


EVERY
1 MINUTE
OF THE
DAY
PRESENTED BY DOMO
TWITTER
USERS POSTS
575k
TWEETS
TIKTOK
USERS WATCH
167M
VIDEOS
GOOGLE
CONDUCTS
5.7M
SEARCHES
DISCORD
USERS SEND
668k
MESSAGES
12M
PEOPLE SEND AN
IMESSAGE
CLUBHOUSE
CREATES 208 ROOMS
INSTAGRAM
USERS SHARE
65k
PHOTOS
FACEBOOK
USERS SHARE 240k PHOTOS
SNAPCHAT
USERS SEND 2M SNAPCHATS
FACEBOOK
LIVE RECEIVES 44M VIEWS
AMAZON
CUSTOMERS SPEND $283k
YOUTUBE
USERS STREAM
694k
HOURS
6M PEOPLE SHOP
ONLINE
NETFLIX
USERS STREAM
452k
HOURS
STRAVA
ATHLETES SHARE
1.5k
ACTIVITIES
TEAMS
CONNECTS
100k
USERS
ZOOM
HOSTS
856
MINUTES OF WEBINARS
SLACK
USERS SEND
148k
MESSAGES
VENMO
USERS SEND
$304k
INSTACART
USERS SPEND
$67k

Fuente

¿Cómo se mueve toda esta información?

Internet – Cables submarinos



Internet – Cables submarinos

- Desde 1850 para el telégrafo
- 1,2 millones de Km de cables submarinos
- Cable MAREA:
  - Comunica EE.UU. con España
  - 2018
  - Hasta 200 Tbps
- Cable SeaMeWe-3 con 39000 km.
- Duran hasta 25 años
- Mapa: https://www.submarinecablemap.com/
- Video: https://www.youtube.com/watch?v=eTBLIYJSzdc

Internet – Satélites

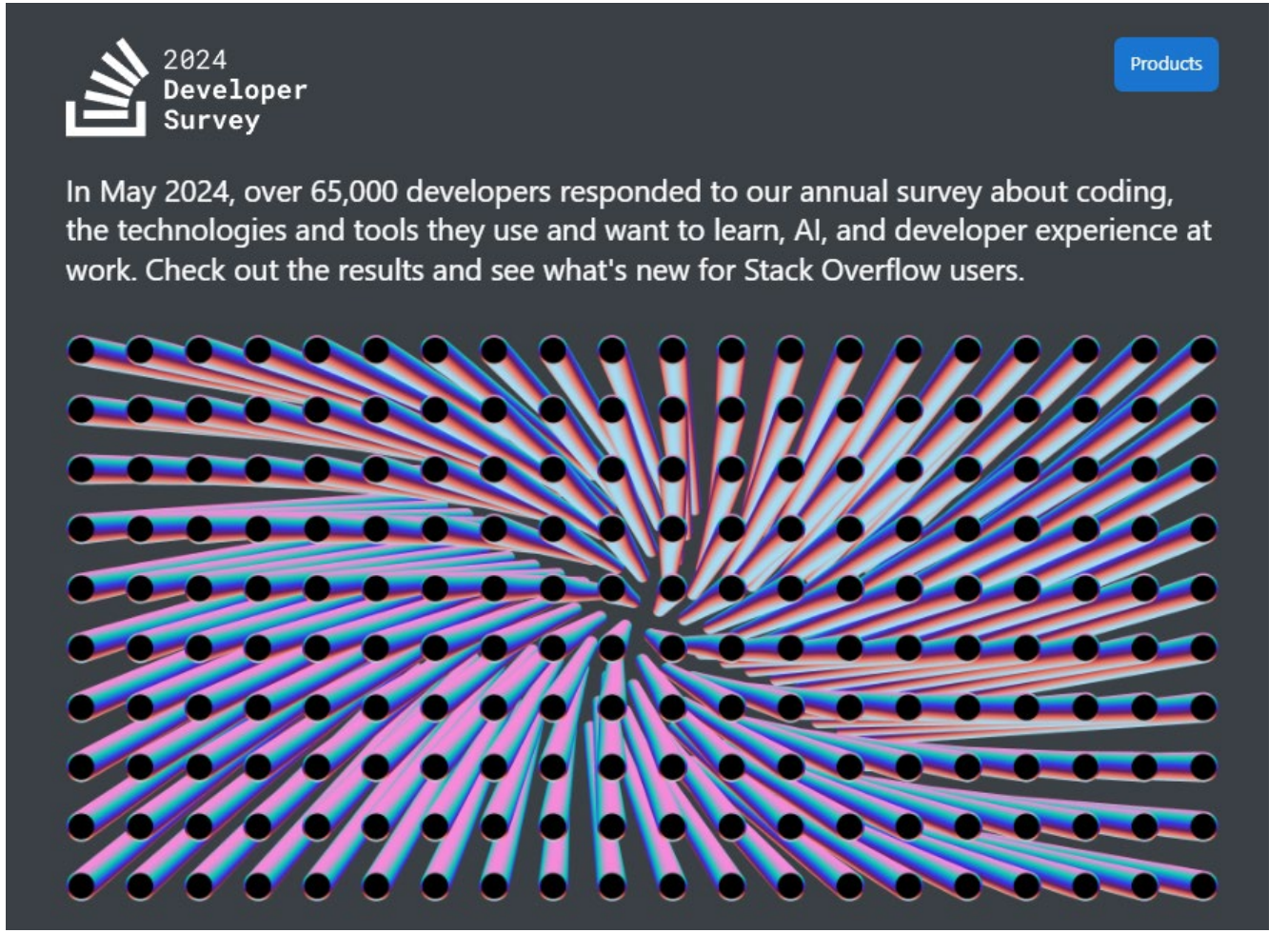
Internet – Satélites

- 1er satélite de comunicaciones Telstar 1 en 1962
- 2000 satélites de comunicaciones en 2020
- Órbita geoestacionaria, 36000 km
- 500 Mbps
- 600 ms de latencia
- Constelaciones:
  - SpaceX con Starlink (4500+/12000-42000)
  - Amazon con Project Kuiper (3,236)
- ¿Cómo funcionan los satélites?
- Despliegue de una constelación

Referencias

- https://www.vox.com/a/internet-maps
- https://www.internethalloffame.org/internet-history/timeline
- https://www.visualcapitalist.com/every-minute-internet-2020/
- https://en.wikipedia.org/wiki/List_of_countries_by_number_of_Internet_users
- https://internet-map.net/
- https://global-internet-map-2018.telegeography.com/
- https://www.internetlivestats.com/total-number-of-websites/
- http://www.realtown.com/blog/A-brief-history-of-Domain-Names-as-the-Evolution-and-Acceptance-of-Not+Coms-Continues
- https://www.mentalfloss.com/article/652246/most-important-moments-internet-history
- https://archive.org/

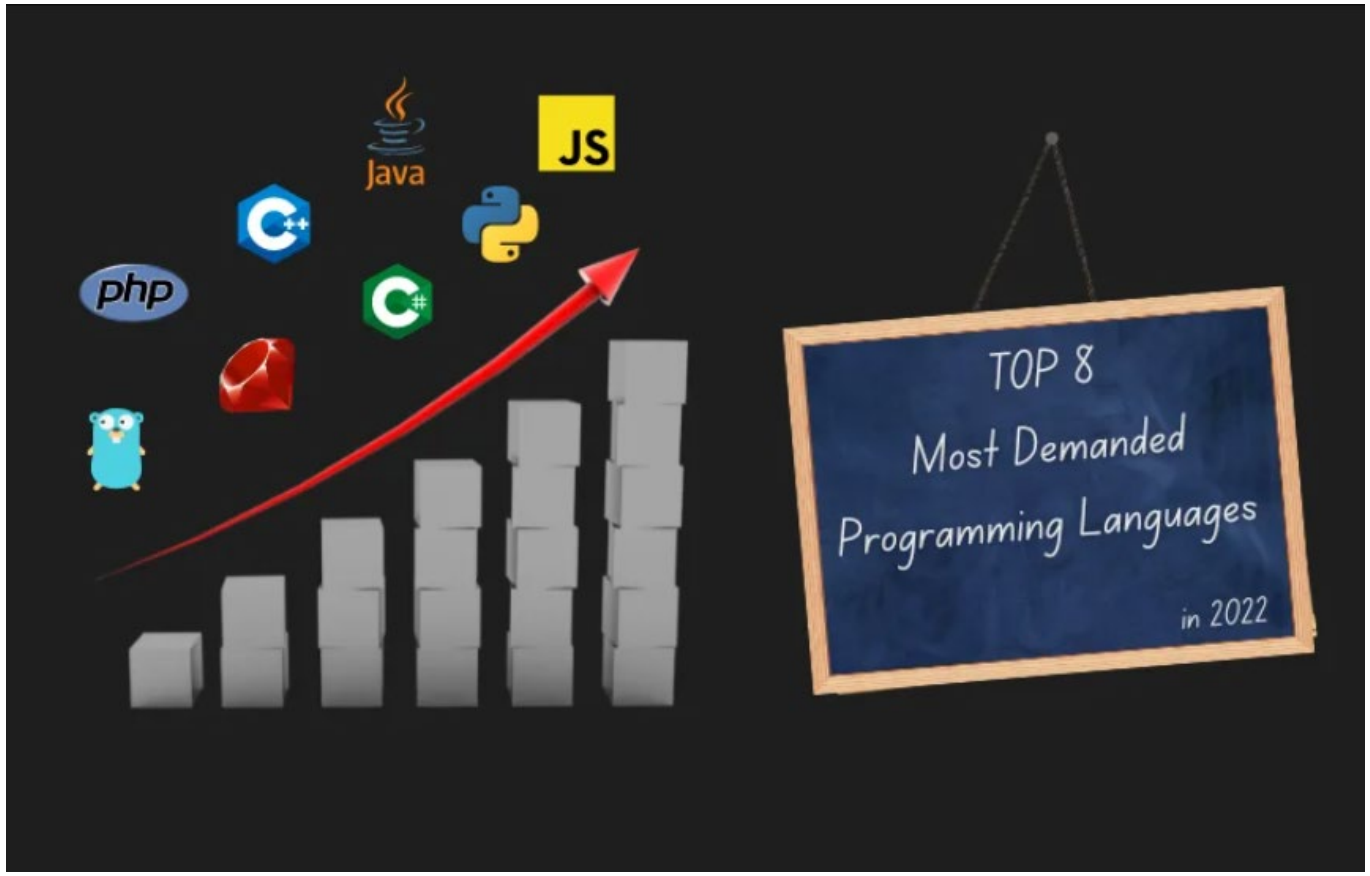
¿Cómo está el panorama actual?



https://survey.stackoverflow.co/2024

Lenguajes de programación más demandados

https://www.devjobsscanner.com/blog/top-8-most-demanded-languages-in-2022/

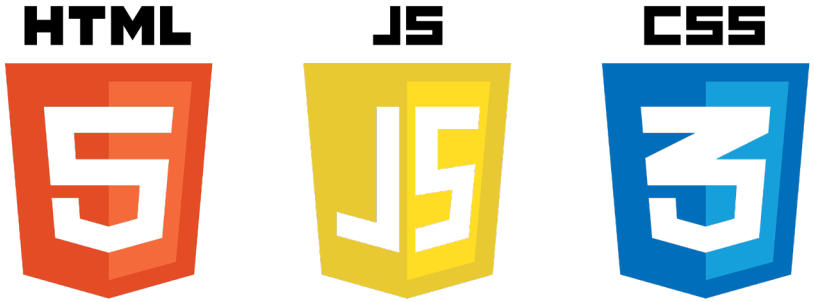


Objetivos del curso

- Mostrar un conocimiento general de la web y las aplicaciones para Internet.
- Ser capaz de diseñar, implementar y desplegar una aplicación web básica.
- Elegir las herramientas y componentes adecuados para desarrollar una aplicación web.
- Ser capaz de desarrollar una aplicación basándose en unos requisitos funcionales siendo capaz de justificar las decisiones tomadas.

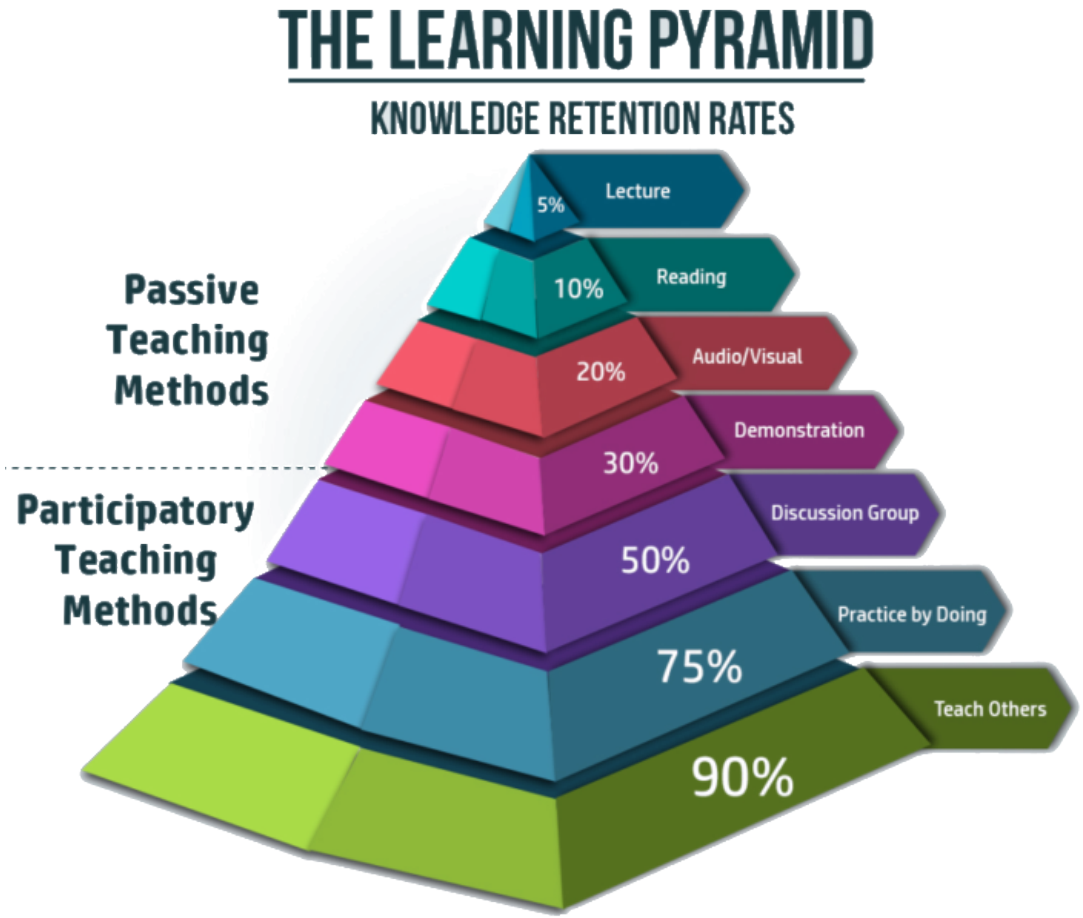
Programa

- Introducción a las aplicaciones para Internet
- HTTP
- Front-end
  - HTML
  - CSS
  - JavaScript
- Back-end
  - Node.js



Metodología

Learn by Doing

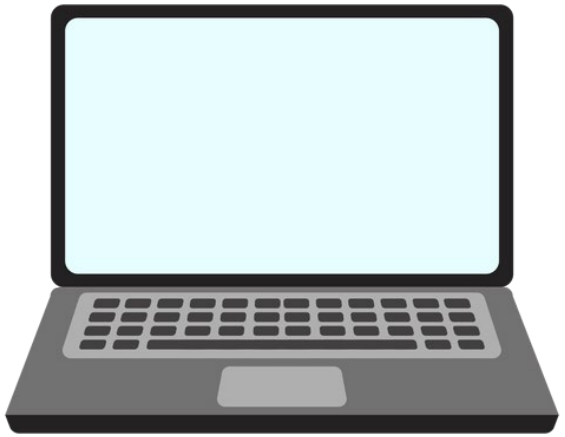


I hear and I forget. I see and I remember. I do and I understand.

~ Confucius

Metodología

Learn by Doing



Evaluación

CONVOCATORIA ORDINARIA (Evaluación Continua)		
Código	**Nombre**	**Peso**
EF	Examen final*	50%
PR	Prácticas*	50%
OP	Trabajos opcionales†	Hasta el 10%

* Es obligatorio aprobar tanto el examen final como el conjunto de las prácticas para aprobar la asignatura

† Los trabajos opcionales solo suman si se aprueba el resto del contenido

Evaluación

Examen final (50%)

- No hay examen parcial
- Un único examen individual
- Parte teórica
- Parte práctica en el ordenador

Evaluación

Nota de prácticas (50%)

- Una única práctica
- En grupo
- Tendrá una presentación

Plagio o dudas acerca de la autoría resultarán en una calificación de 0 en la nota de prácticas

Se puede realizar defensa de la práctica

Evaluación

Trabajos opcionales (10%)

- Un punto extra
- Necesario haber aprobado la asignatura
- Asistencia ≥ 75% (no hay que justificar falta)
- Ejercicios publicados en Blackboard

Evaluación

- Convocatoria Extraordinaria
  - Un **único** examen con TODO el contenido
  - Poco tiempo de reacción (unas dos semanas entre la convocatoria ordinaria y la extraordinaria)

Tened en cuenta que…

- Es necesario aprobar el examen final (5 o más)
- Es necesario aprobar el conjunto de las prácticas
- La práctica es una parte **muy importante** de la asignatura al igual que el trabajo en clase

Guía docente

Castellano

Curso Académico: 2023/24

362 - Grado en Ingeniería de Sistemas de Información

17481 - Sistemas Web I

Información del Plan Docente

TITULACIÓN:	362 - Grado en Ingeniería de Sistemas de Información
CÓDIGO DE LA ASIGNATURA:	17481
AÑO ACADÉMICO:	2023/24
CURSO:	4
SEMESTRE:	Primer semestre
CARÁCTER:	Obligatoria
ECTS:	6.0
IDIOMA:	Clases Teórico-Prácticas: Grupo 101: Castellano

Revisar la Guía Docente en Blackboard

Exámenes

- Examen ordinario (fecha tentativa)
  - Miércoles 18 de diciembre de 2024 a las 14:30
- Examen extraordinario (fecha tentativa)
  - Jueves 30 de enero de 2025 a las 14:30

Tutorías

- Despacho: D 2.3.4
- Correo: alvaro.sanchezpicot@ceu.es
  - Empezar el asunto del correo por: [SW1]