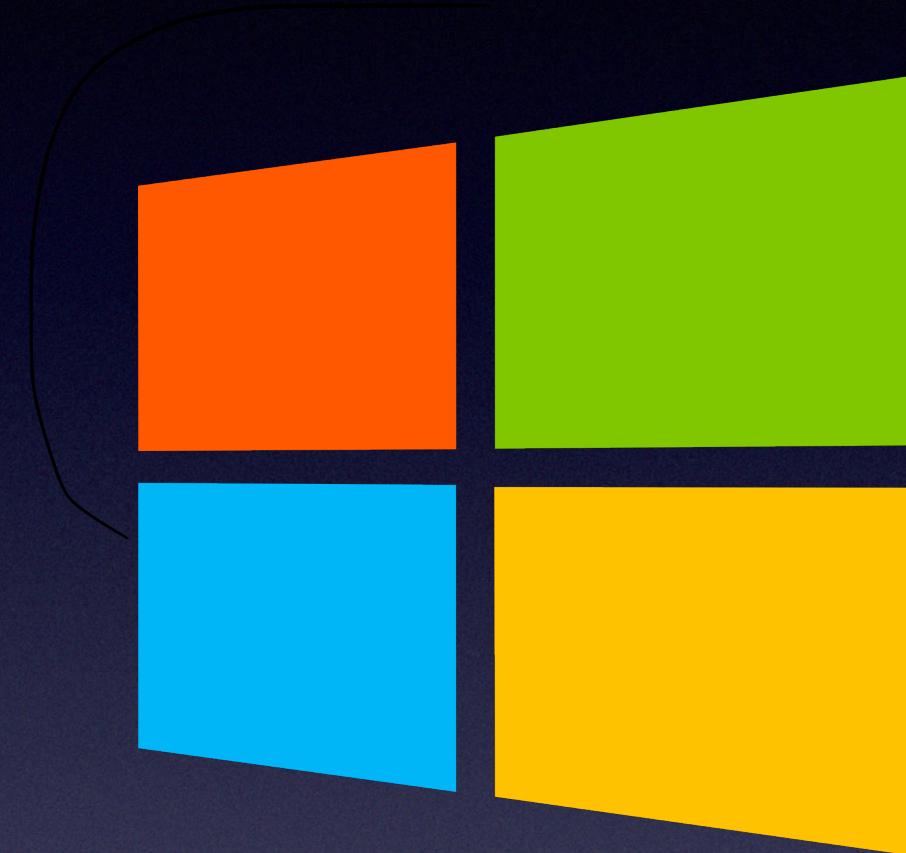


Platform-based Development

Ms Roger Peralta Aranibar

Platform Definition



Platform Definition

- Processor (mainframe, workstation, desktop, handheld or embedded) or hardware (x86, SPARC, PowerPC or Alpha).
- Application or Operating system (Windows, Macintosh).
- Combination of both.

Platform Definition

- FOLDOC computing dictionary:

PLATFORM: Specific computer hardware, as in the phrase "platform-independent". It may also refer to a specific combination of hardware and operating system and/or compiler, as in "this program has been ported to several platforms". It is also used to refer to support software for a particular activity, as in "This program provides a platform for research into routing protocols".

History

- First meaning: hardware platform.
- Hundreds of operating systems have been developed, Microsoft Windows and many Unix-like system. Unix original version in 1969 by Bell Labs, or Berkeley extension
- The processor, *central processing unit* (CPU), is the main logic unit of a computer. Most widely used processor type is the x86 (i386 or Intel-compatible processor)

History

- Manufactured by Intel Corporation, or clones made by Advanced Micro Devices, Inc. (AMD)
- Chips developed by Intel: i386, i486, i586 by 1982.
- Consolidation in the processor industry, which, in turn, is largely due to the soaring costs.

Constrain

- Different platforms provide different functionality and restrictions.

Cross-platform

- Platform-independent and portable.
- Most important for Free-software.
- Port is used to describe the development of a version of a program or an operating system for use on another platform.port is used to describe the development of a version of a program or an operating system for use on another platform

Cross-platform

Types:

- Building or compilation for each platform that it supports.
- Directly run on any platform without special preparation.
(Interpreted Languages)

Implementation

- Cross-platform programs may run on as many as all existing platforms, or on as few as two platforms.
- Hard due to different application programming interfaces. (API)
- Software written for a particular operating system does not automatically work on all architectures that operating system supports

Internet

- Among the greatest success stories of platform independence
- Platform independence of TCP/IP. (transmission control protocol/
Internet protocol)

Programming & Scripting Languages

- Described as being platform-independent.
- They include C, Java, Perl, PHP and Python. (not Visual Basic)

Binary

- Executable files. Only support the operating system and computer architecture.
- They include C or C++.
- Separate executable distributions, although they come from the same source code.
- The software engineer must port it, i.e. amend the code.

Script and Interpreted

- If its interpreter is available on multiple platforms and the script only uses the facilities provided by the language.
- Script can be used on all computers that have software to interpret the script.
 - bash – A Unix shell commonly run on Linux and other modern Unix-like systems,
 - Perl – Used for CGI WWW programming, small system administration tasks, and more.
 - PHP – A scripting language most popular in use for web applications.
 - Python – A modern scripting language where the focus is on rapid application development and ease-of-writing.
 - Ruby – A scripting language whose purpose is to be object-oriented and easy to read.

Operating System

- Linux is that it is well suited for use on a wide range of platforms.
- **Computer devices:** personal computers, workstations, hand-held devices, internet appliances, industrial robots, communications infrastructure equipment, mainframe computers, supercomputers, and even a wristwatch.
- **Processor types:** x86, Alpha, Itanium, m68k, PowerPC and SPARC.
- Microsoft Windows operating systems have been designed mainly for just a single processor type, the x86.

Web Applications

- Accessible from any of various web browsers within different operating systems.
- Generally employ a client–server system architecture, and vary widely in complexity and functionality.
- Web applications perform all or most processing from a stateless server, and pass the result to the client web browser.
- Web interface: Gmail, A9.com, Google Maps.

Course

Las evaluaciones de Desarrollo están de la siguiente forma

Permanente 1 20%

Permanente 2 20%

Parcial Teórico 15% (Sin documento)

Parcial Práctico 15% (Sin documento)

Final Teórico 15% (Con documento)

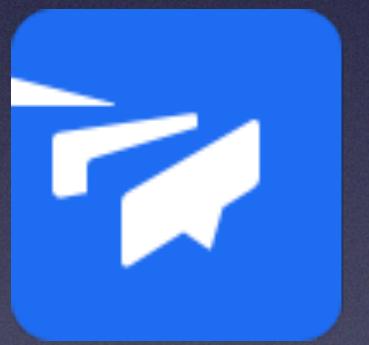
Final Práctico 15% (Sin documento)

Working Remote

- Chapter 1, 2 and 3 of <https://git-scm.com/book/en/v2>
- Installed via command line.
- Messaging tool. (Slack or Twist)



GitHub



twist



Working Remote

- Develop a live Web Application.
- Host on a supported Internet platform.
- Rotative roles that includes testing, release, develop.
- Groups of 5.