



Tishk International University
IT Department
Course Code: IT 349/A

Web Programming

Week #1
Intro to the course

Fall 2024
Hemin Ibrahim, PhD
hemin.ibrahim@tiu.edu.iq



Overview



- Introduction to web programming course
- Syllabus
- Course policy
- Web Programming
- Why PHP?

Hemin Ibrahim

- hemin.ibrahim@tiu.edu.iq
- (WhatsApp)
 - Sending text messages **ONLY**.
 - Phone calls are not an option.
 - Voice messages are not permitted.
- Office: 252



Course policy - Attendance



★ I have a big problem with attendance

★ Ahmmm

★ I will fail if I don't have 70%

★ Ahmmm

★ Can you please help me

★ NO

No attendance will be recorded if you are unavailable

Course policy - Class time



Don't be Late

Be on time for the lecture

Remember, class starts at 11:00AM, not 11:05AM

11:06, You consider as absent

Course policy



- **Raise your hand if you need to step out of the class.**
- **Ensure that you arrive on time for the second part of the lecture**

Course policy



Students are NOT allowed to request postponements for quizzes, assignments, and project due dates.

However,

A single, one-time postponement may be granted under exceptional circumstances.

Course policy



Students are strongly encouraged to utilize office hours for additional help and clarification.

About this course



2 hours theory



2 hours practical at home



2 hours computer lab

Web programming

WhatsApp group



Google classroom



fyzip2w



About 1



Find your Interests & Master one Language



Node.js

Express
Jest
npm



Ruby

Ruby on Rails
RSpec
RubyGems



Python

Django
pyUnit
pip



Java

Grails
Spring
Play



PHP

Laravel
PHPUnit
xDebug



C#

.NET
TFS
WCF



GO

Echo
Gorm
GODog

BASICS



DATABASE



CLOUD



SERVER



TOOLS



Assessments



Type	Quantity	Total mark
Quiz	5	20%
Homework	1	5%
Project	1	15%
Midterm	1	20%
Final Exam	1	40%

Grading



◆ Extra marks can be earned by:

✓ Presentations

✓ Volunteering

About This Course



Web Design

HTML, Css and basics of Front end development.

Web Programming

Basics of PHP and Backend web development

Web Technologies

Basics of Laravel and other web technologies

About This Course



◆ What will you learn in this course?

✓ Basics and Syntax of PHP.

✓ How to create a simple web application.

✓ How to **create**, read, **update** and **delete** data in database using PHP and MySQL.

✓ How to use software version control (Git) and work collaboratively on a project.

About This Course



In order to be able to learn and understand this course and pass it, you must know or have :

- ◆ Very good programming skills.
- ◆ Very good knowledge of HTML and Css (Web Design).
- ◆ Basics of Database.

Static vs. Dynamic Websites



- **Static Websites:** Earlier websites were static, built only with HTML and CSS. They served the same content to all visitors, with no interactive elements or real-time data updates.
- **Dynamic Websites:** With the advent of server-side languages like PHP, websites became dynamic. They could interact with databases, change content based on user interaction, and support features like logins, real-time updates, and more.

Web programming



- Web programming (also known as web development) refers to the process of creating **dynamic**, interactive **websites** and **web applications**.
- It involves writing code
 - how web pages function
 - interact with users.
 - Unlike static web design (which focuses on layout and appearance), web programming enables websites to **process user inputs, access databases, and perform complex operations**.

Key Aspects of Web Programming



- **Client-Side Programming**

- Code that runs in the user's web browser
- HTML, CSS, and JavaScript
- layout, styling, and interactive elements such as animations or forms.

- **Server-Side Programming**

- Code that runs on a web server
- Examples include PHP, Python, Ruby (Rails), Node.js, etc.
- Interacting with databases, and managing user sessions

Key Aspects of Web Programming



- **Databases**

- Interacting with databases to store and retrieve data
- MySQL, PostgreSQL, MongoDB, etc

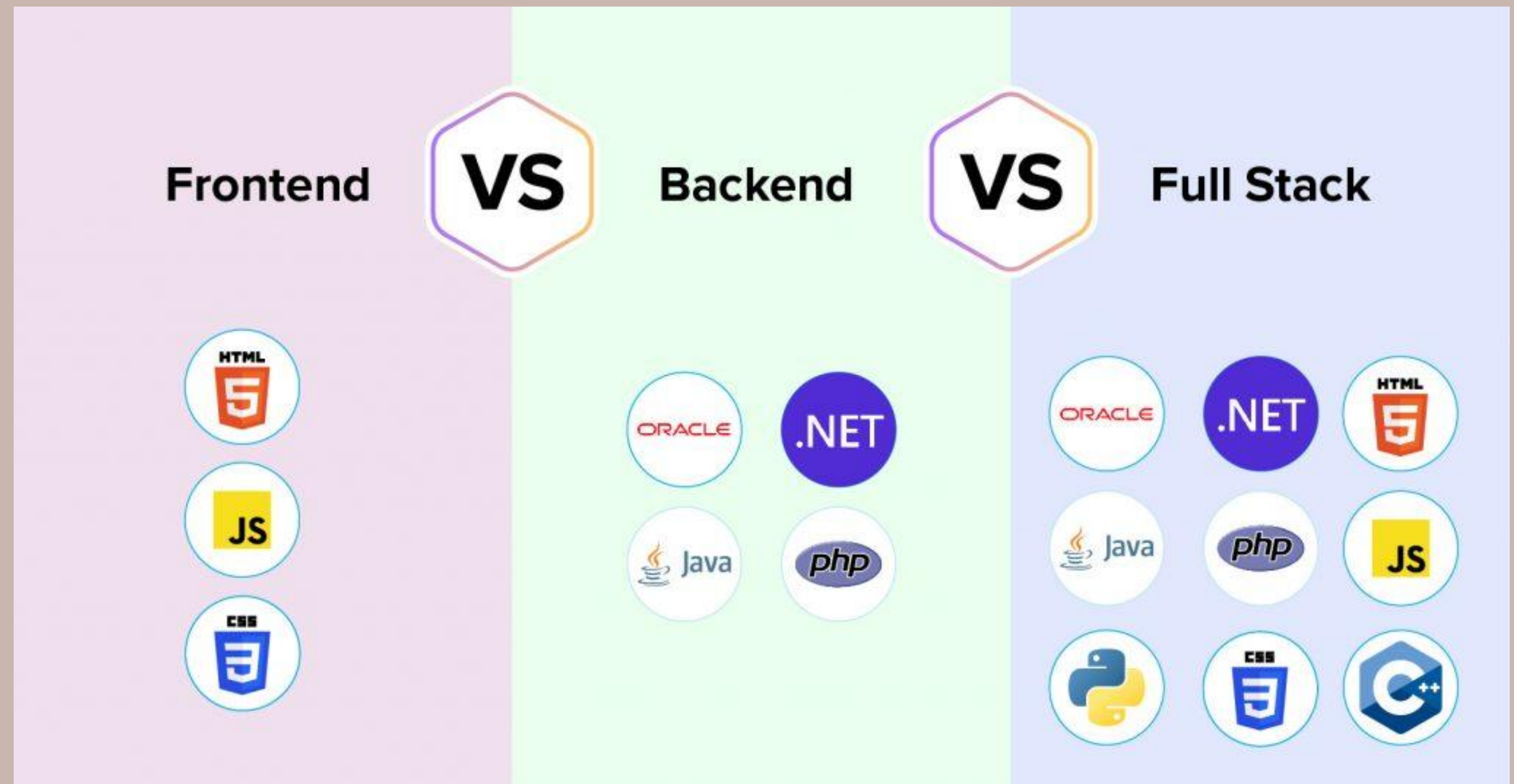
- **APIs (Application Programming Interfaces)**

- APIs allow different software applications to communicate with each other
- Web may integrate external APIs (Google Maps, payment gateways)

Types of Web Programming



- Front-End Development
- Back-End Development
- Full-Stack Development

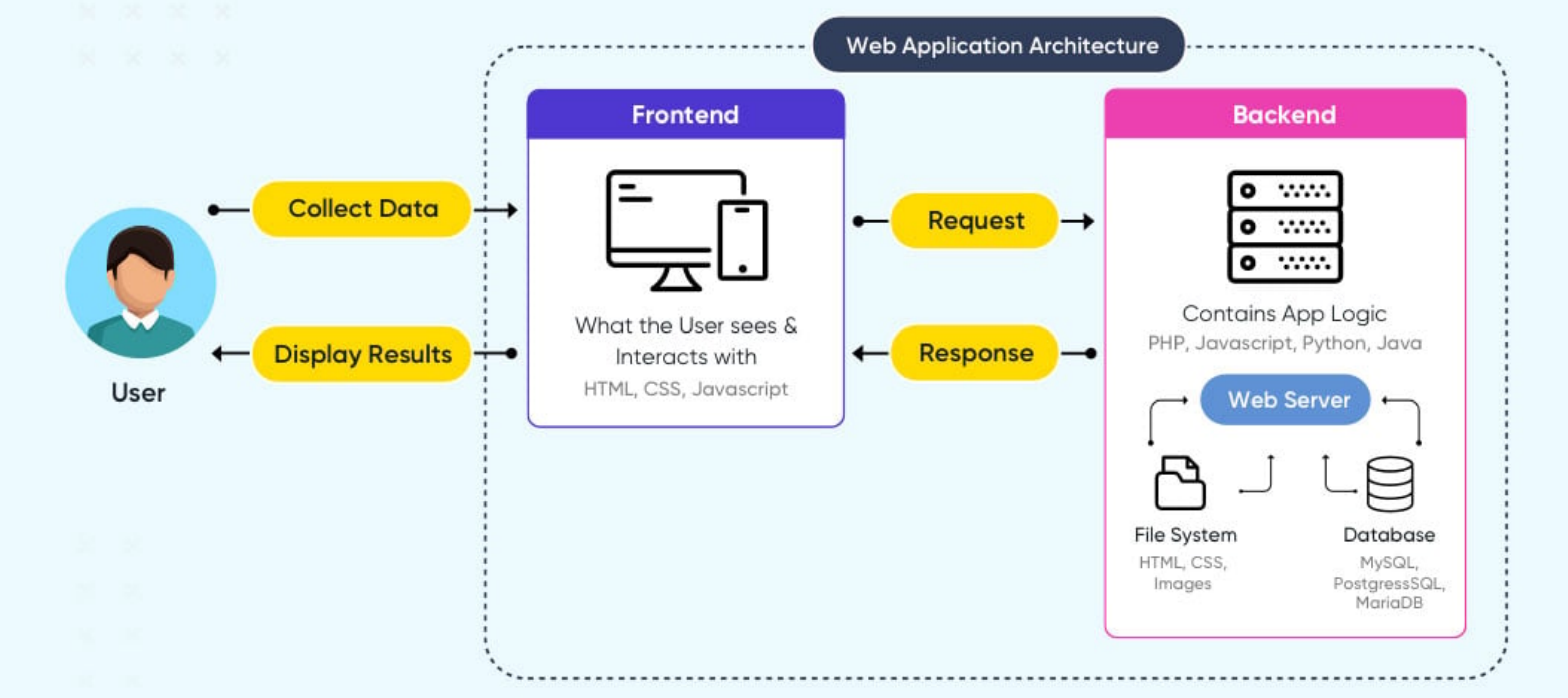


Why is Web Programming Important?



- **Universal Access:** Websites and web applications can be accessed from any device with a web browser, making them highly versatile.
- **Wide Reach:** The internet provides businesses, individuals, and organizations with the opportunity to reach a global audience.
- As of 2024, there are over 5.18 billion active internet users, meaning more than 64% of the world's population is online.
- **Business and E-commerce:** Websites and web applications are central to modern businesses, facilitating e-commerce (over \$5.5 trillion in global e-commerce sales in 2022), marketing, communication, and more.
- **Mobile First:** With 60% of global internet traffic coming from mobile devices, web programming that ensures mobile compatibility is critical.

Web application architecture



MOST DEMANDED TECH SKILLS WORLDWIDE IN 2023



PHP



- PHP (recursive acronym for PHP: **Hypertext Preprocessor**) is a widely-used open source general-purpose scripting language that is especially suited for web development and can be embedded into HTML.



Why PHP?



- It's easy to learn and use
- It's open source (and therefore free!)
- It's versatile
- It enjoys community support
- It's fast and secure
- It is well connected with databases
- It is tried and tested

Why

Reasons Why PHP Is An Excellent Option For Web Development





What is Open Source?

Why PHP?



- PHP is cross-platform and runs on all major operating systems, from Unix variants (including Linux, FreeBSD, Ubuntu, Debian, and Solaris) to Windows and macOS. It can be used with all leading web servers, including the Apache, Nginx, and, OpenBSD servers, to name a few; even cloud environments like Azure and Amazon are on the rise.

Why PHP?



- So with PHP, you have the freedom of choosing an operating system and a web server.
- Furthermore, you also have the choice of using procedural programming or object oriented programming (OOP), or a mixture of them both.

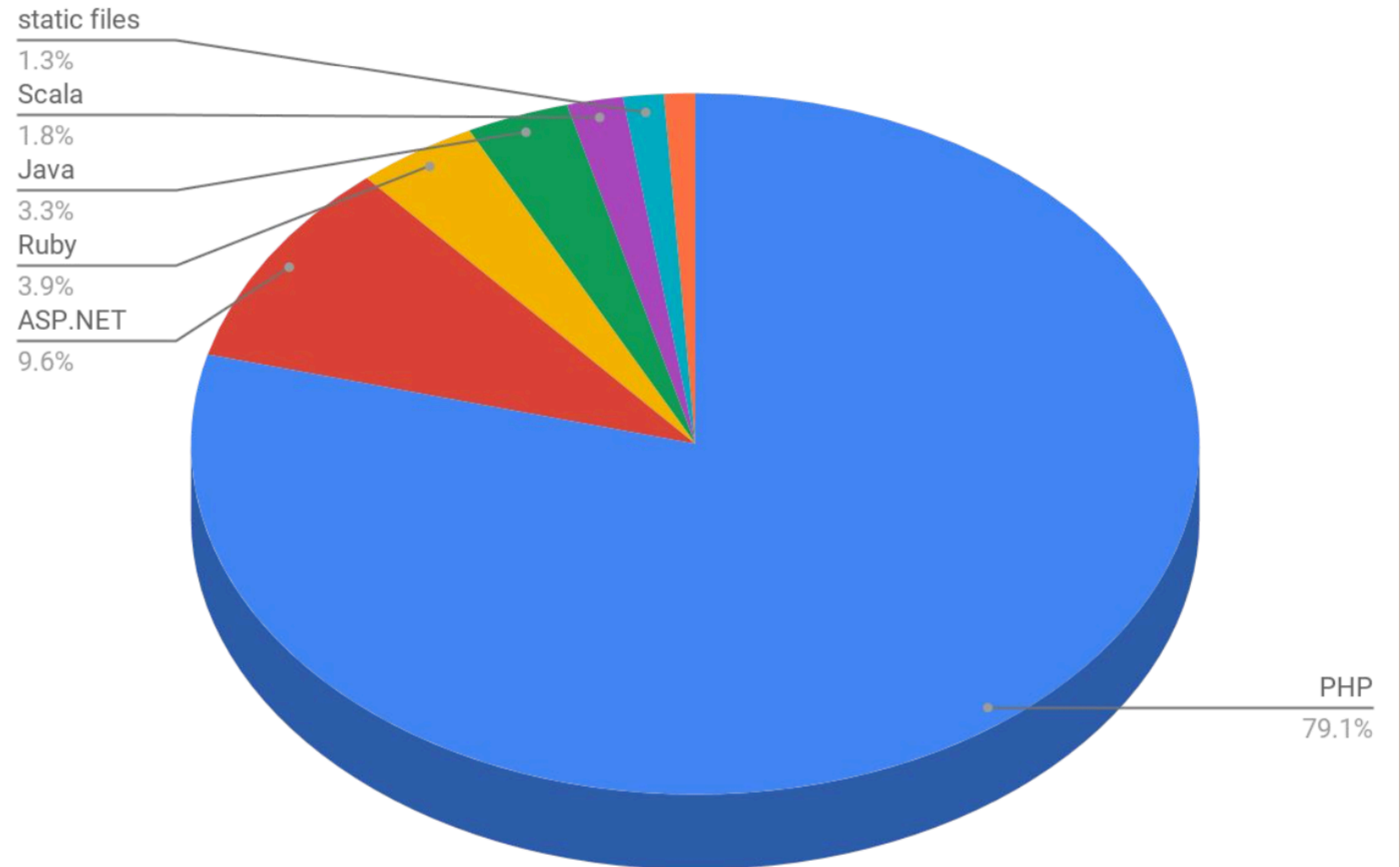
Why PHP?



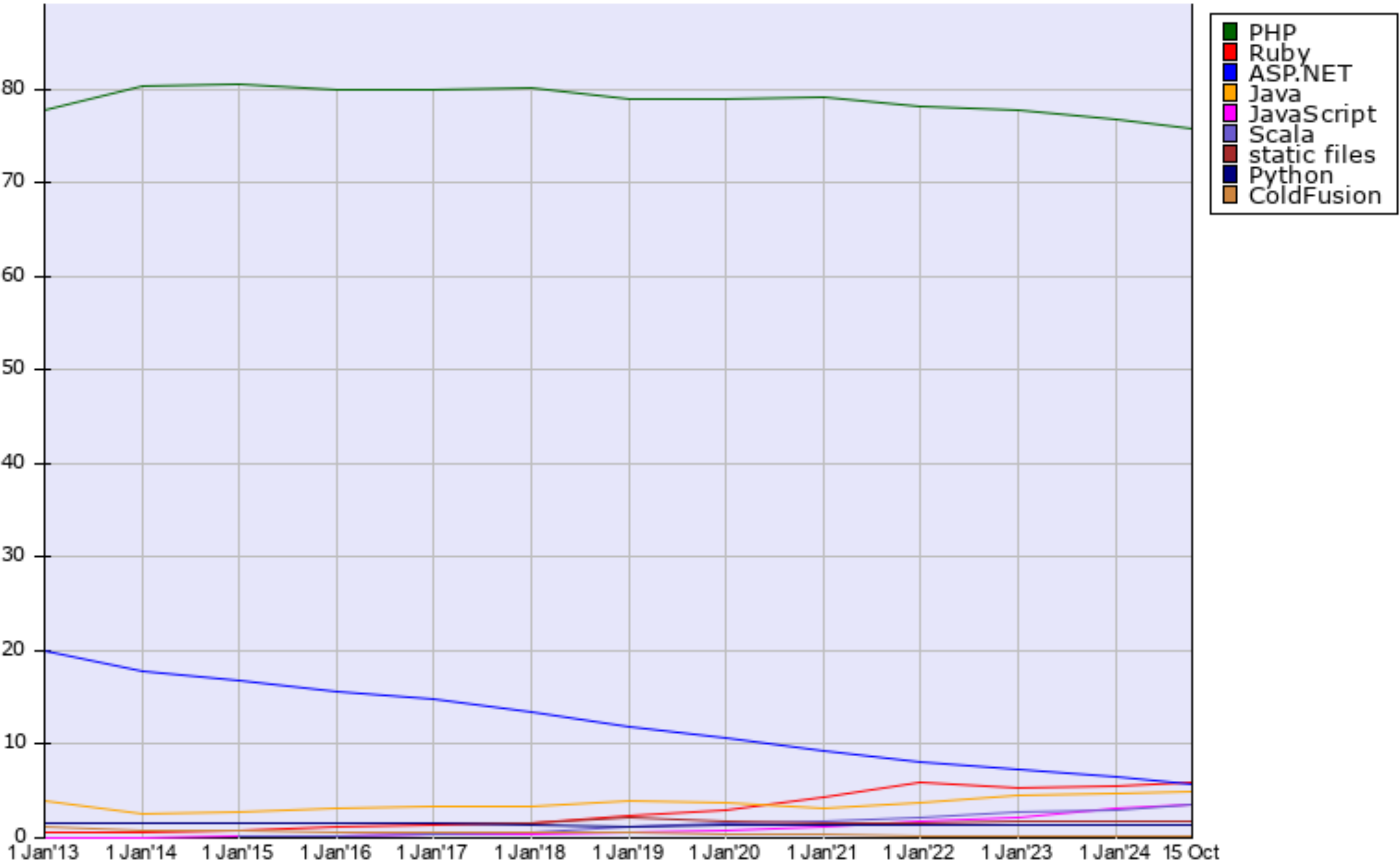
PHP

Who uses PHP?

PHP is used by **79.1%** of all the websites whose server-side programming language we know.



Historical yearly trends in the usage statistics of server-side programming languages for websites



Historical yearly trends in the usage statistics of server-side programming languages for websites



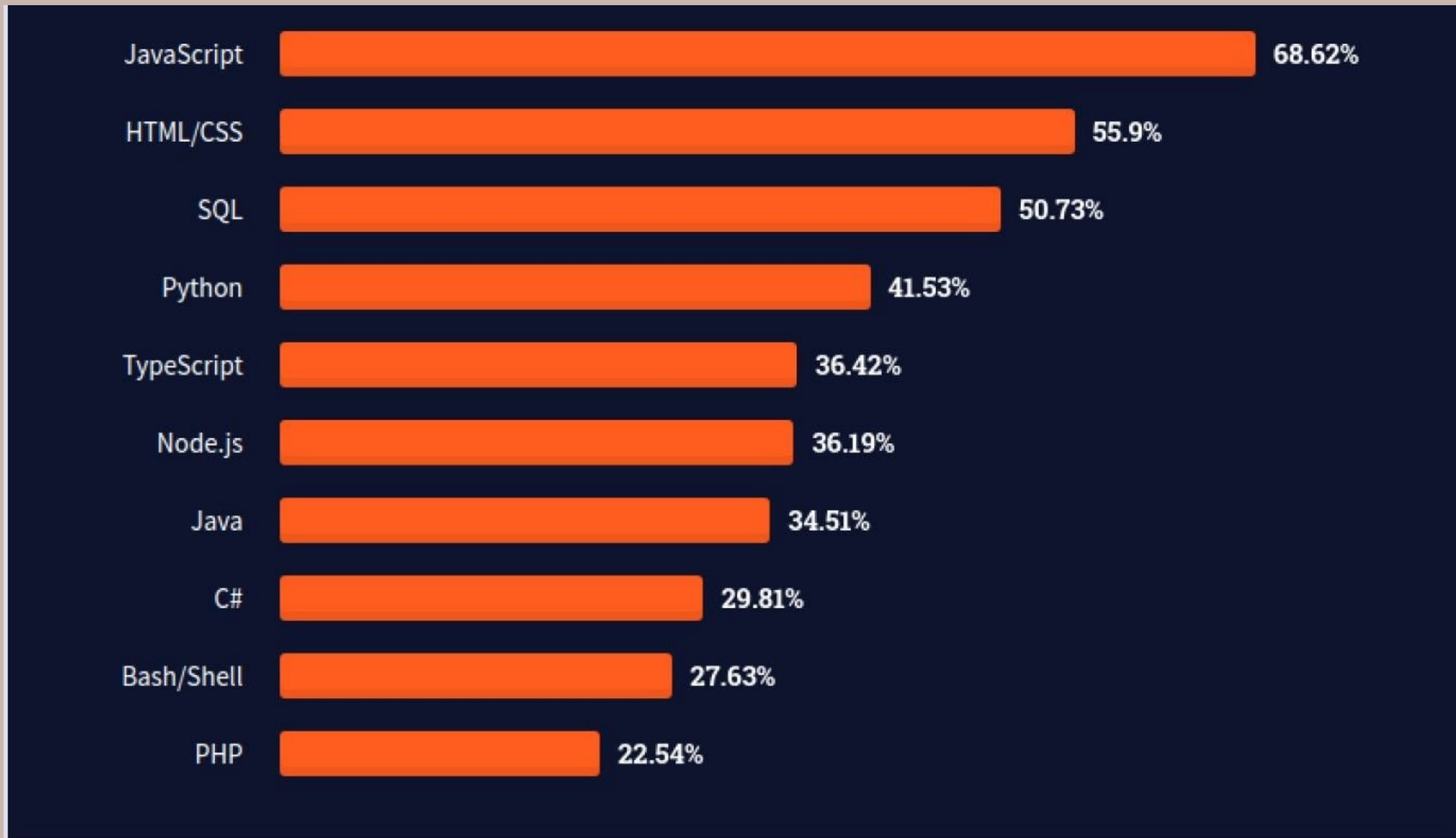
	2013 1 Jan	2014 1 Jan	2015 1 Jan	2016 1 Jan	2017 1 Jan	2018 1 Jan	2019 1 Jan	2020 1 Jan	2021 1 Jan	2022 1 Jan	2023 1 Jan	2024 1 Jan	2024 15 Oct
PHP	77.7%	80.3%	80.6%	80.0%	80.0%	80.2%	78.9%	78.9%	79.1%	78.1%	77.7%	76.7%	75.7%
Ruby	0.5%	0.6%	0.9%	1.1%	1.3%	1.6%	2.4%	3.0%	4.3%	6.0%	5.3%	5.6%	6.0%
ASP.NET	19.9%	17.8%	16.7%	15.6%	14.8%	13.5%	11.8%	10.6%	9.3%	8.0%	7.4%	6.6%	5.7%
Java	4.0%	2.6%	2.8%	3.1%	3.3%	3.4%	4.0%	3.7%	3.2%	3.7%	4.6%	4.7%	5.0%
JavaScript	<0.1%	0.1%	0.1%	0.2%	0.3%	0.4%	0.7%	0.8%	1.2%	1.8%	2.3%	3.1%	3.6%
Scala			0.2%	0.2%	0.3%	0.5%	1.2%	1.6%	1.8%	2.3%	2.8%	3.0%	3.5%
static files				1.5%	1.5%	1.6%	2.1%	1.8%	1.6%	1.5%	1.9%	1.8%	1.7%
Python	1.5%	1.7%	1.6%	1.7%	1.6%	1.3%	1.1%	1.3%	1.4%	1.4%	1.3%	1.4%	1.3%
ColdFusion	1.1%	0.8%	0.7%	0.7%	0.6%	0.6%	0.5%	0.5%	0.3%	0.3%	0.3%	0.3%	0.2%
Perl	0.8%	0.6%	0.5%	0.5%	0.4%	0.3%	0.3%	0.2%	0.2%	0.2%	0.2%	0.1%	0.1%
Erlang			0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
Miva Script				0.1%	<0.1%	<0.1%	<0.1%	<0.1%	<0.1%	<0.1%	<0.1%	<0.1%	<0.1%

Who uses PHP?



SEMESTER 1						SEMESTER 2					
CODE	COURSE	TYPE	CR	ECTS	YEAR GRADE STATUS	CODE	COURSE	TYPE	CR	ECTS	YEAR GRADE STATUS
DBT 101	ACADEMIC DEBATE AND CRITICAL THINKING I	Ana	2	3	2013 AA	DBT 102	ACADEMIC DEBATE AND CRITICAL THINKING II	Ana	2	3	2013 AA
PHYS 101	GENERAL PHYSICS I	Ana	3	5	2013 CC	PHYS 102	GENERAL PHYSICS II	Ana	3	5	2013 DD+
CMPE 121	COMPUTER PROGRAMMING I	Ana	4		2013 AA	CMPE 122	COMPUTER PROGRAMMING II	Ana	4		2013 AA
MATH 101	CALCULUS I	Ana	4	6	2013 DD+	CMPE 154	DISCRETE MATHEMATICS	Ana	3		2013 CC
CMPE 103	INTRODUCTION TO COMPUTERS	Ana	2	3	2013 AA	ELT 104	TECHNICAL ENGLISH	Ana	3	4	2013 BA
ELT 103	ADVANCED ENGLISH	Ana	3	5	2013 BB	KUR 106	KURDOLOGY II (KURDISH)	Ana	2	1	2013 BA
KUR 103	KURDOLOGY I	Ana	2	1	2013 BA	KUR 108	KURDOLOGY II (KURDISH)	Ana	2	1	2013 BA

Why JS?



Thank You
