

# Our Technologies

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# Technologies and People

Apache Web Server

PHP – Server Language

Structured Query Language (SQL)

JavaScript – Client Side

JQuery – Client Side

JSON – Data Exchange

# Apache Web Server

- Originally developed at National Center for Supercomputing Applications in 1994
- First project / product of the Apache Foundation
- Brian Behlendorf founded Apache
- Open Source – Written in C



<https://youtu.be/6kRMlfIBMCY>

Science Calculations

**FORTRAN (55)**

**ObjectiveC (83)**

System

System

**Assembly**

**C (72)**

**C++ (80)**

**Java (95)**

**C# (01)**

**JavaScript (95)**

**php (95)**

**python (91)**

C uses curly  
braces { } for  
code blocks.

Scripting/  
Interpreted

# PHP

PHP is the most widely used scripting language for web programming. PHP extends HTML pages by adding server-executed code segments to HTML pages. The output of the execution of the PHP code is merged into the HTML page.

```
<?php
    echo "Hello World. Today is ".date("l").". ";
?>How are you?
```

Hello World. Today is Wednesday. How are you?

# The History of PHP

- Rasmus Lerdorf
- Not a trained computer scientist
- Consultant building dynamic web sites - got tired of doing the same thing over and over in C
- Reusable bits + HTML Templates



<https://youtu.be/YIGRXEzjE6c>



# MySQL

MySQL is one of the most popular free and open source database engines in the market place. MySQL powers Facebook, Yahoo!, WordPress, Drupal, Joomla, and millions of other dynamic web sites.

```
INSERT INTO users VALUES('Smith', 'John', 'jsmith@mysite.com');
```

```
SELECT surname,firstname FROM users WHERE email='jsmith@mysite.com';
```

# Structured Query Language

- Structured Query Language (SQL) came out of a government / industry partnership
- National Institute of Standards and Technology (NIST)



<https://youtu.be/rLUm3vst87g>

# JavaScript

JavaScript is a C-like programming language that can be included in an HTML web page. JavaScript allows the builder of a web page to embed dynamic elements within a web page. JavaScript programs run in the browser (i.e. the Client)

```
<script type="text/javascript">
    document.write("Hello World. Today is " + Date() );
</script>
```

# JavaScript: Brendan Eich

- Invented JavaScript in May 1995 in ten days



<https://youtu.be/lPxQ9kEaF8c>

# jQuery: John Resig

- Started jQuery in 2005 to make his web development projects easier
  - Elegant way to select DOM elements and register events
- Released in 2006
- Works at Khan Academy as the "Dean of Computer Science"



<https://youtu.be/5SzUDgDvCzc>

# JavaScript Object Notation

- Douglas Crockford - "Discovered" JSON
- Object literal notation in JavaScript



<https://youtu.be/kc8BAR7SHJI>

# Summary

- Many modern web applications use a stack of open source software working together
- While you can use frameworks to accelerate productivity, this course focuses on what is really going on so you can fully understand what frameworks are doing on your behalf

# Acknowledgements / Contributions



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