

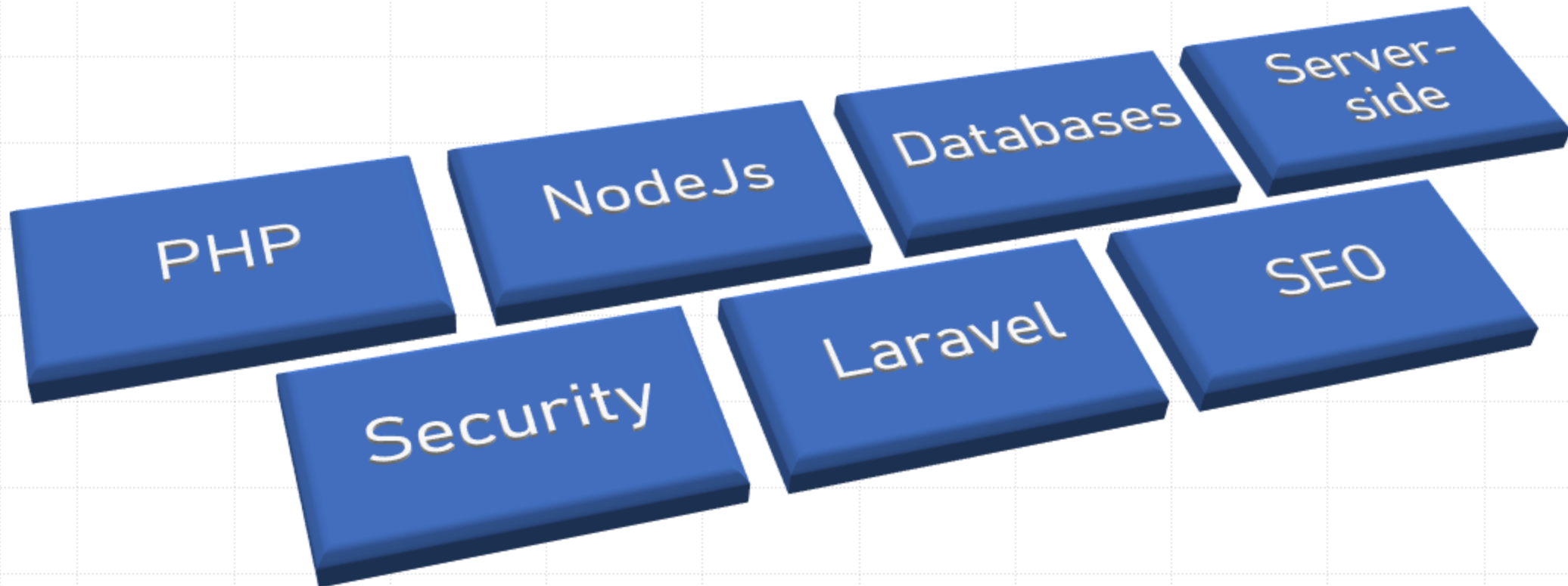


# Introduction

Backend Web Development

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# Topics We're Going To Cover



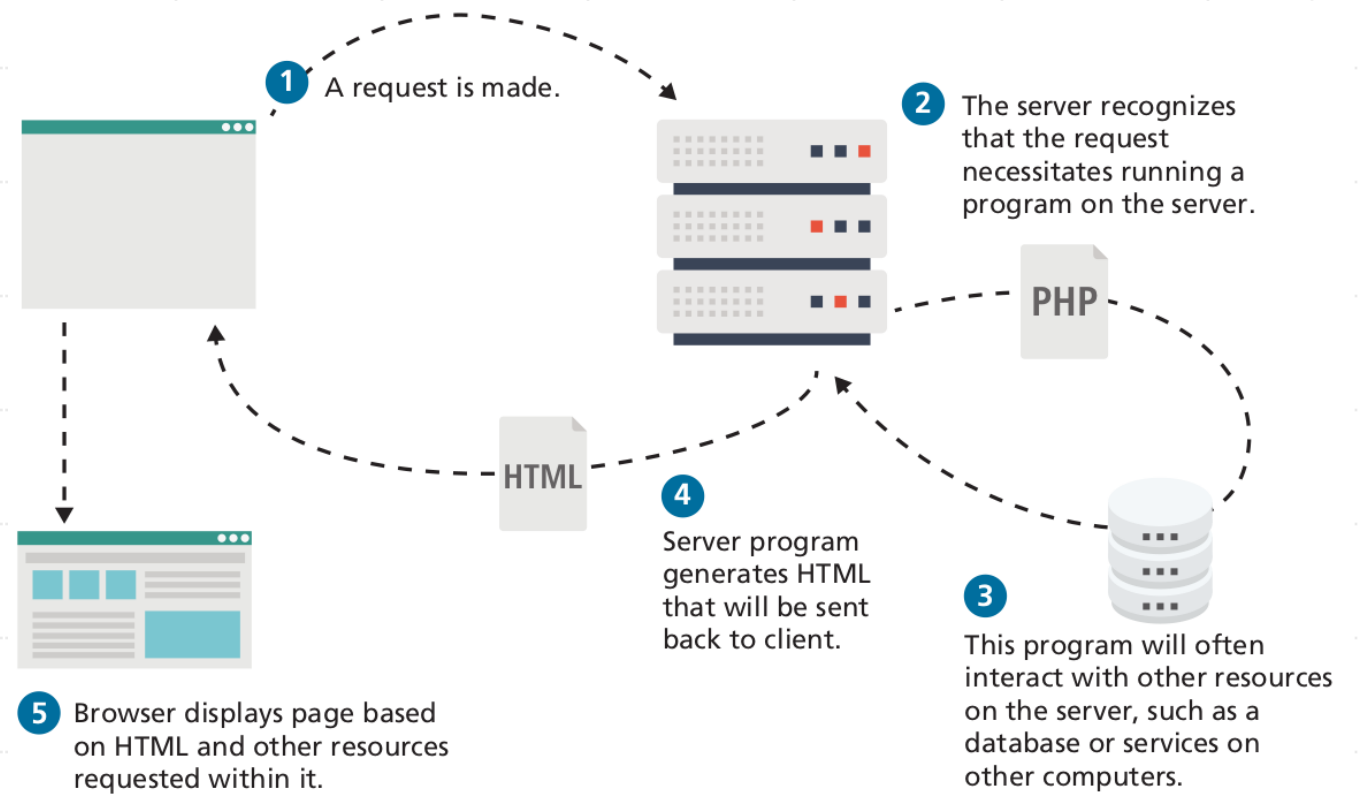


# What is server-side development?

Lecture 1

# Frontend vs. Backend

1. Client-side: Browser Request  
<https://webdevelopment.ca/>
2. BE: Recognizes request
3. BE: Loads different resources
4. BE: Generates Frontend objects
5. Client-side: Browser renders page



# Frontend vs. Backend Demo: HTTP Requests

- Use `nc -l 12345` to simulate a server
- Using a browser (or postman) get <http://localhost:12345/>
- Read more about [HTTP GET requests](#)

```
Firefox/130.0  
,image/webp,image/png,image/svg+xml,*/*;q=0.8  
br, zstd  
ldjc1JHQ0dDRS9XTmRoUitZTzIvUkQ3N3Y1L25RV2J2bVh0aTNoTE1za29neGNqbUJrazFJVHVMSnFxcUd2S1Jhb0l1RGZRUUE2bitkZFpTTjdJeEtme  
Gp5ZUIvTEh2TTB3UHuzTVJyN080REFHeExrWnNZVS85ZU1iWnFMclhUdERsVTBoMTNZTnBCULZkU3JjWUZlSEgwRm1zT0E3dkZZaGg4MnN2T1dMcXY0c  
3917572100a76d238017cc75850be18b31; none_jwt_token=; none_partner_prefix=
```

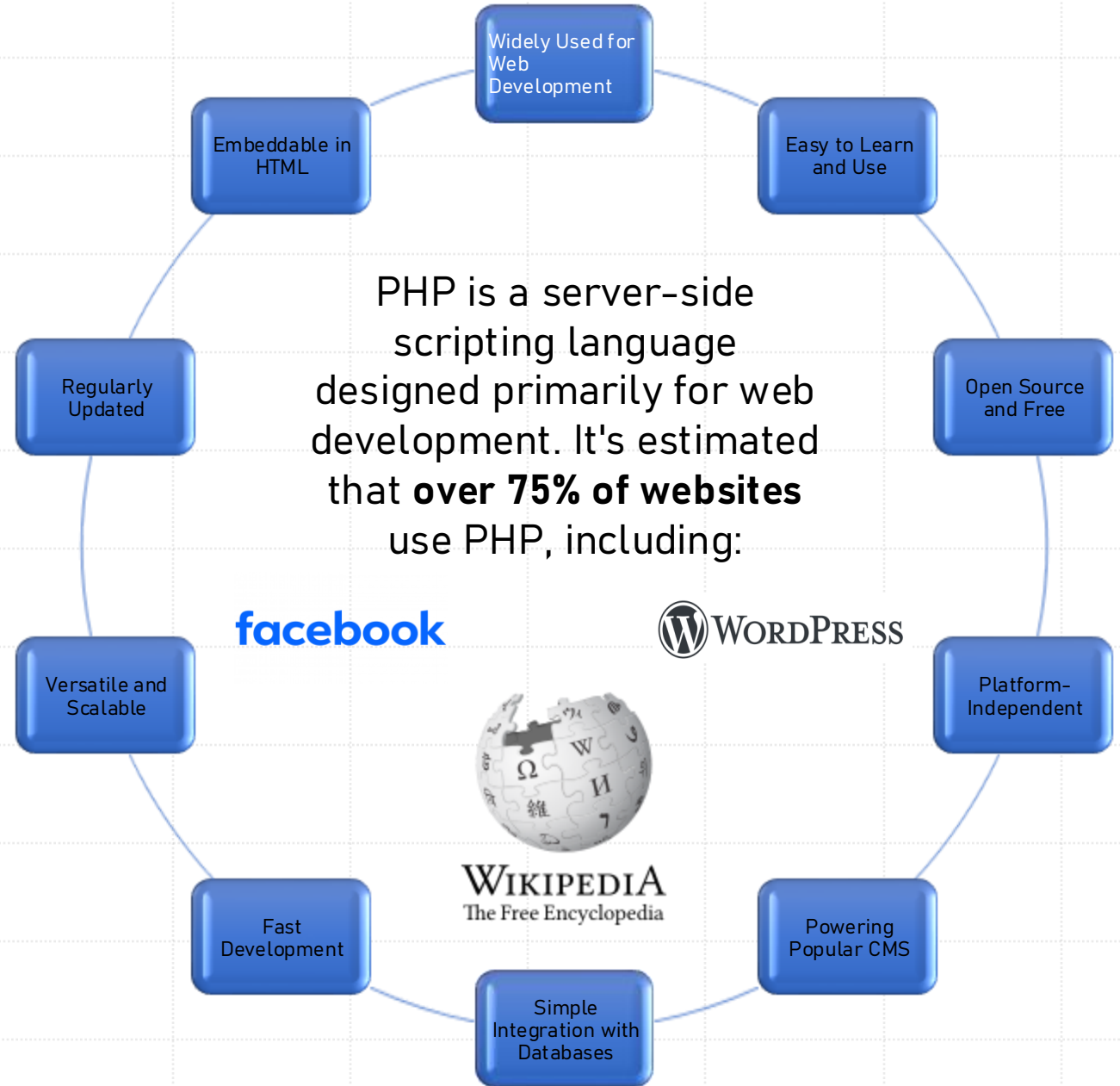
# Top Server-side Frameworks

- How many are PHP?
- How many are JS?
- What else are you studying?
- What else do you know?



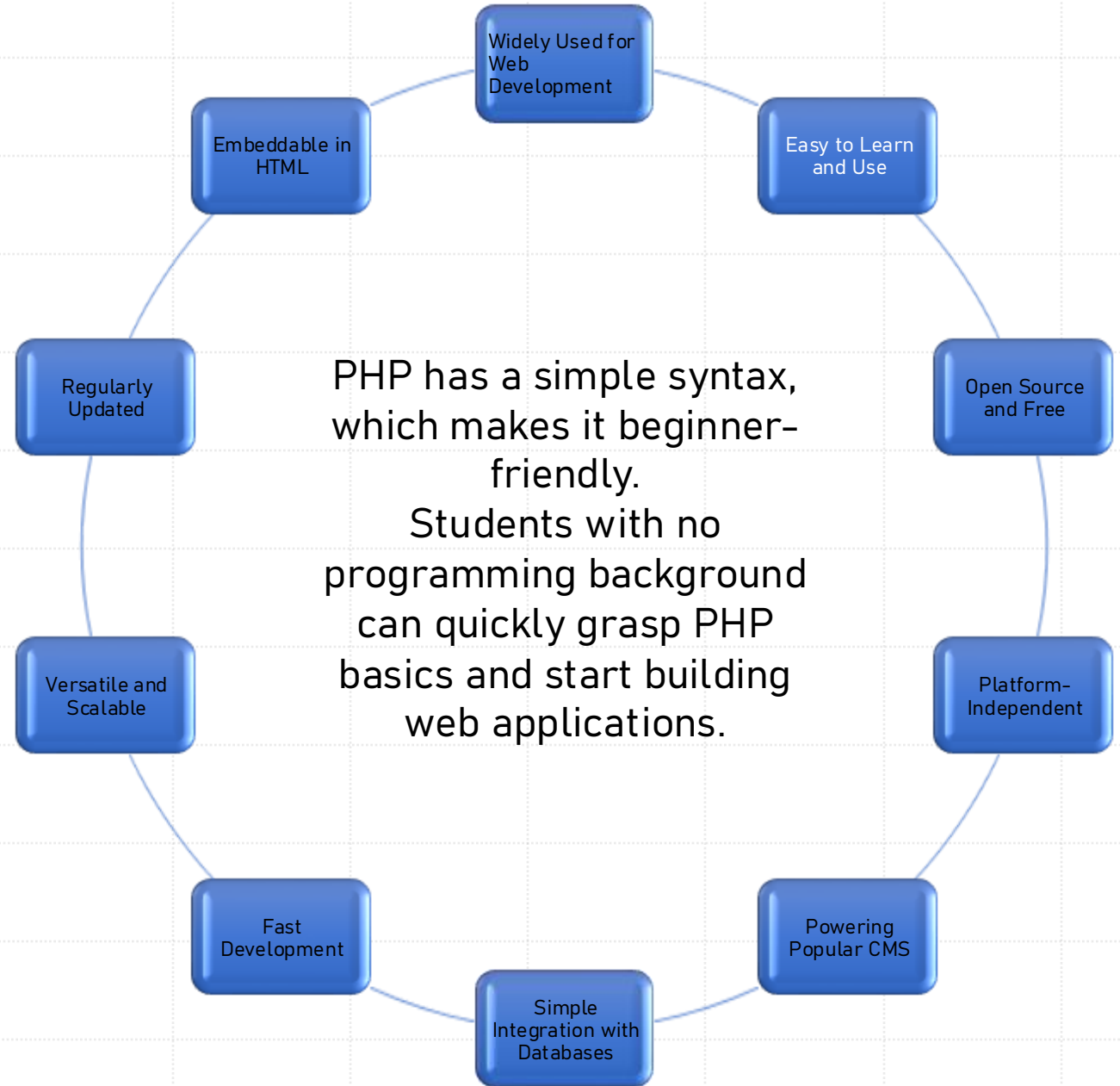
# Interesting Facts

## About PHP



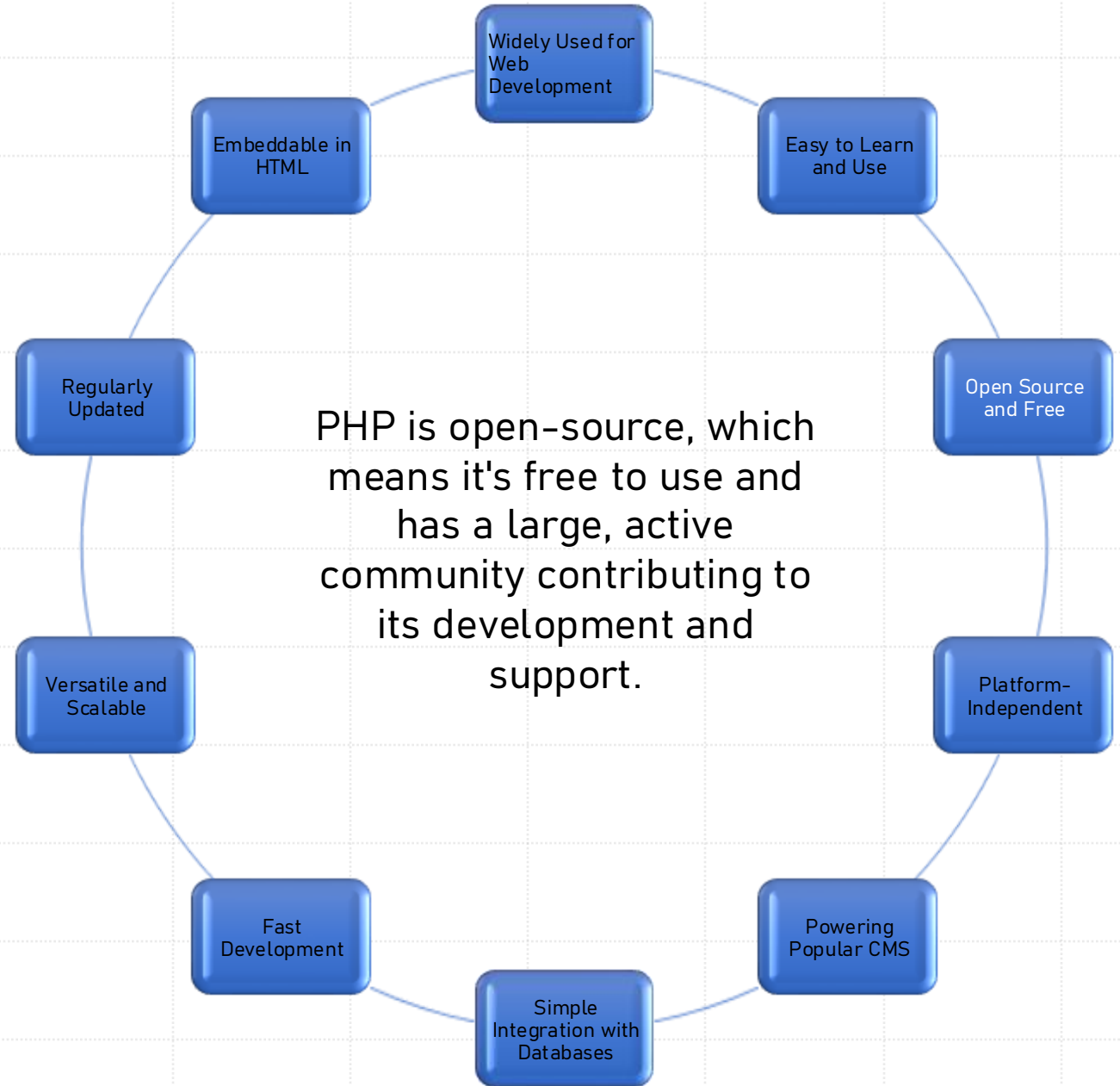
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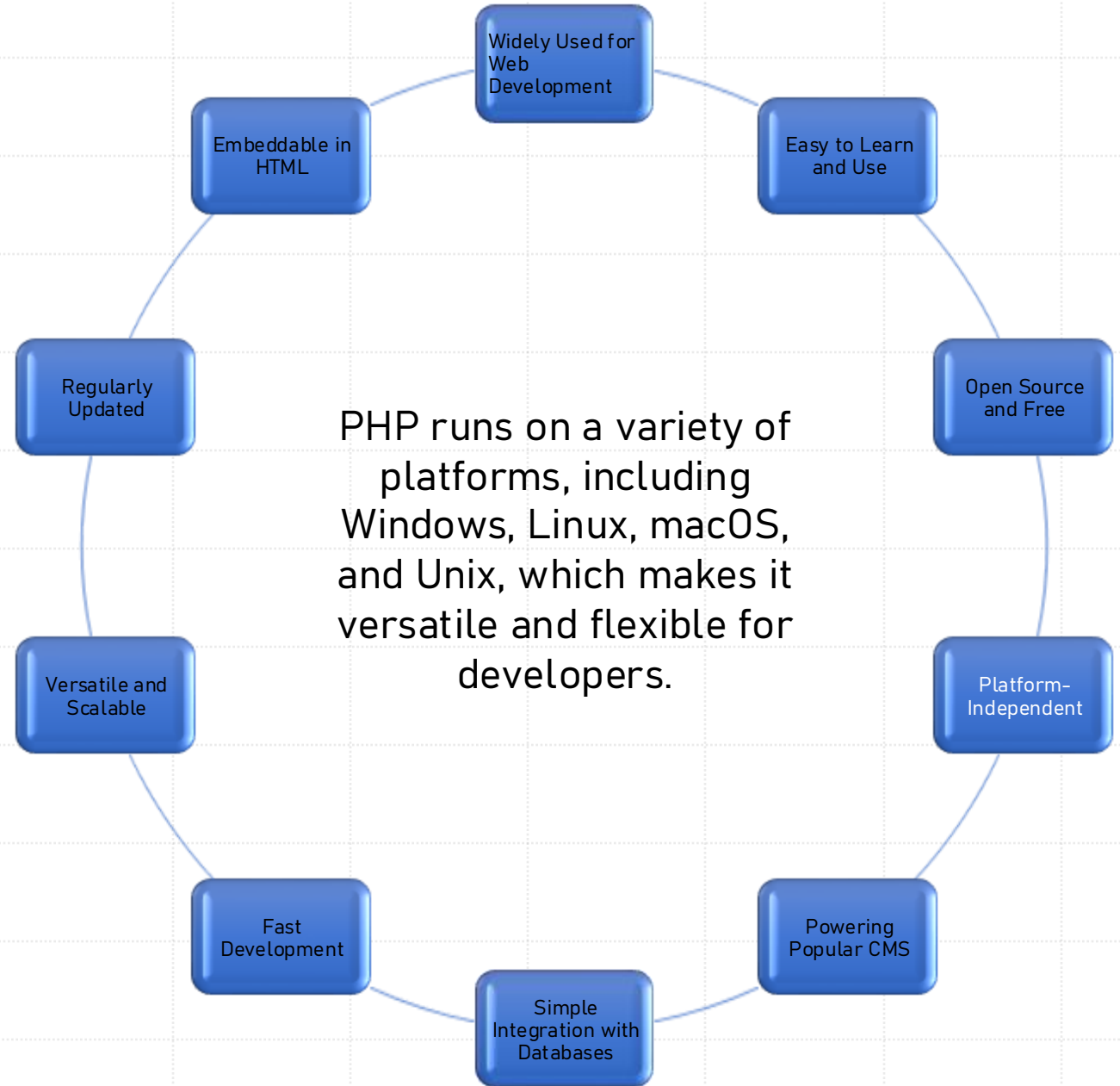
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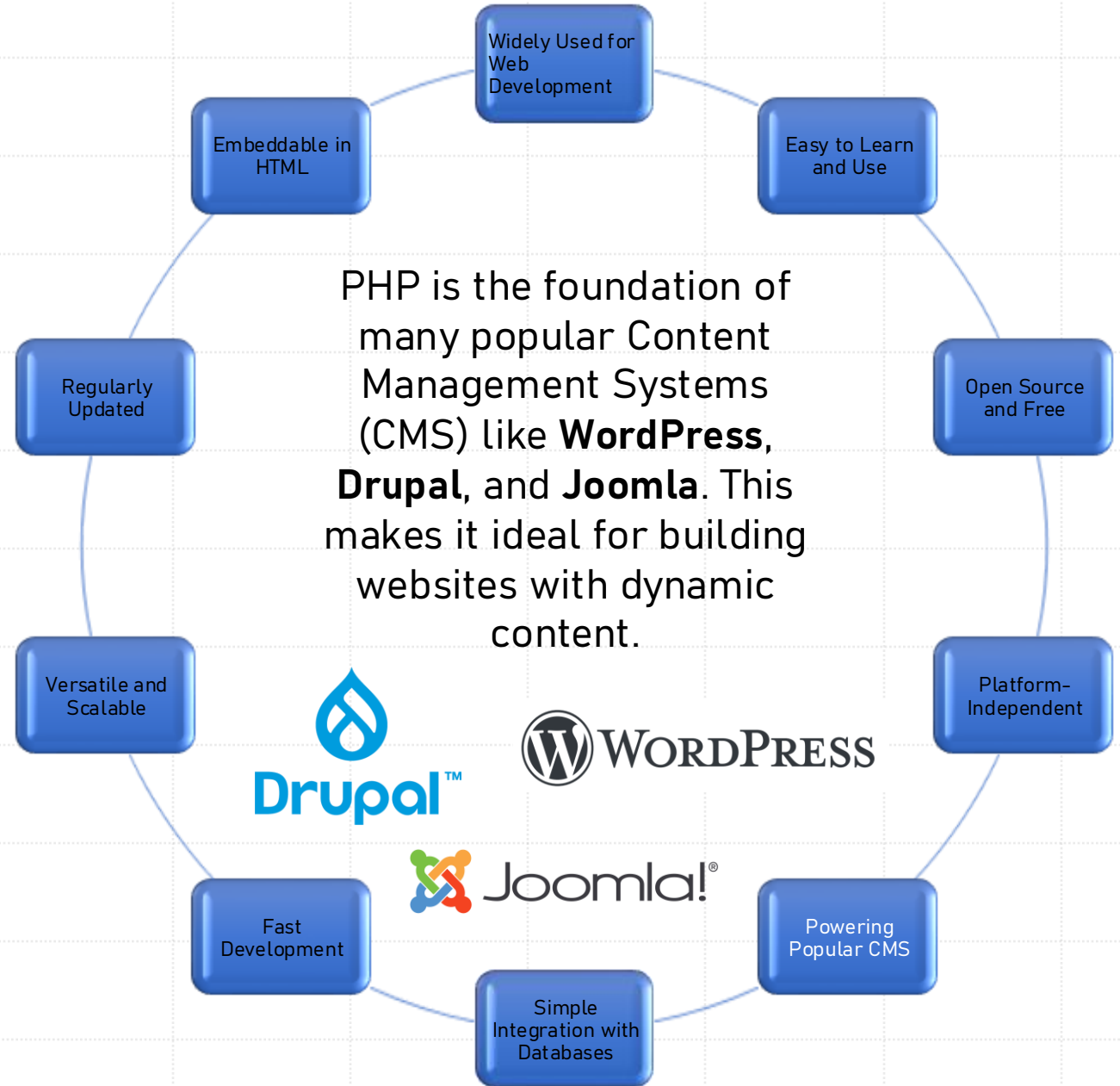
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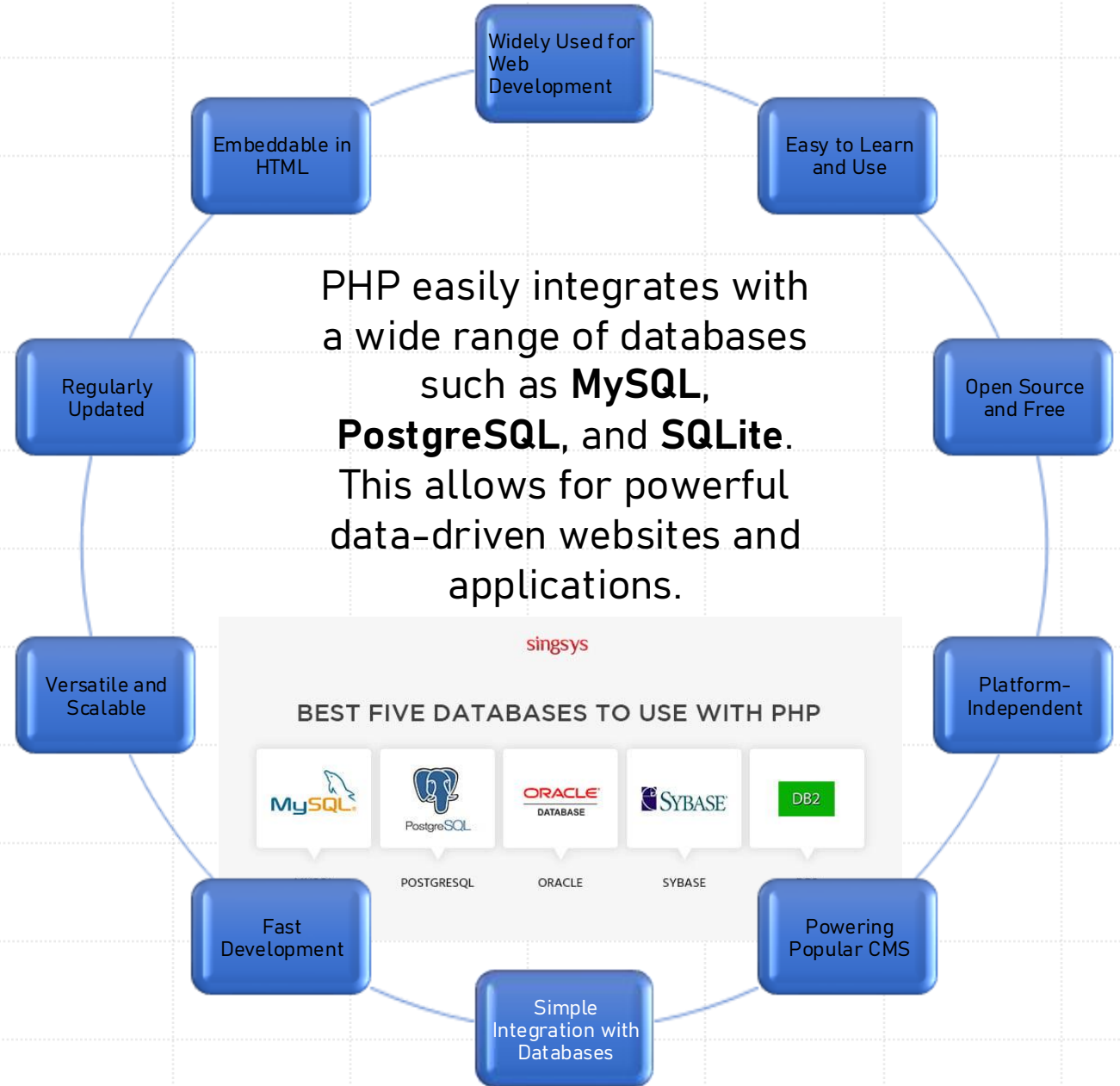
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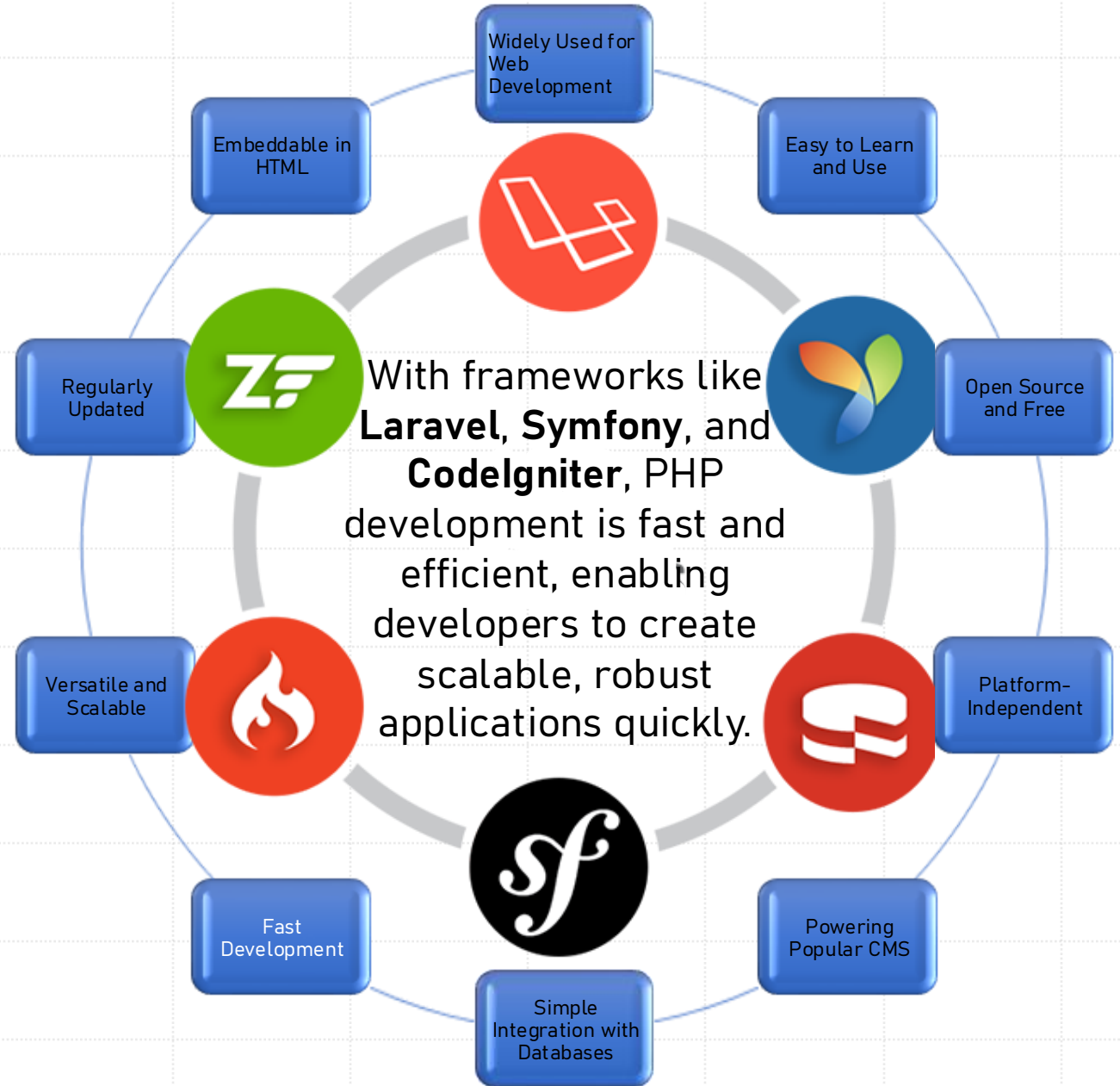
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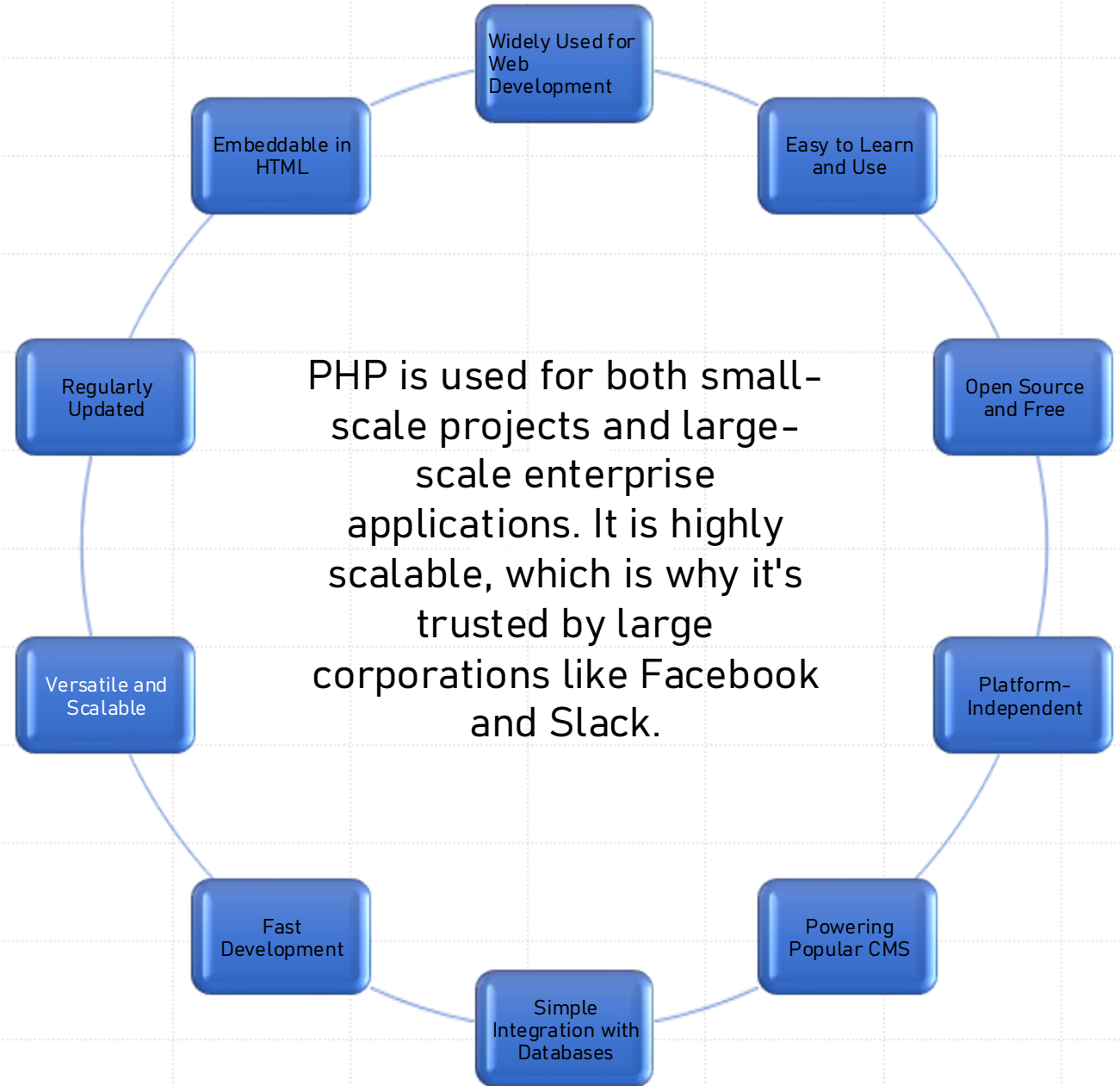
# Interesting Facts

## About PHP



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# Interesting Facts

## About PHP





# PHP Fundamentals

Lecture 1



# PHP Tags

**PHP is a server-side language**, meaning the code runs on the server before the webpage is sent to the browser.

```
<?php
    echo "Hello from PHP!";
?>
```

**JavaScript is (usually) a client-side language**, meaning the code runs in the user's browser after the webpage has loaded.

```
<script>
    document.write("Hello from
JavaScript!");
</script>
```



# PHP Comments, exactly like JS

*PHP*

```
// Single-line comment
```

```
/*
```

```
Multi-line
```

```
comment
```

```
*/
```

*Javascript*

```
// Single-line comment
```

```
/*
```

```
Multi-line
```

```
comment
```

```
*/
```

# Variables

## *PHP*

Variables are declared with `$` without the need for data types. Optionally: you can use `declare()` for constants, usually at the top of the script

```
define("AGE", 25);
```

```
$height = 175;
```

```
$name = "John";
```

```
$is_admin = true;
```

## *Javascript*

Variables are declared using `let`, `const`, or `var`.

```
const AGE = 25;
```

```
let height = 175;
```

```
let name = "John";
```

```
var isAdmin = true;
```





# Program Controls

Lecture 1

# If-elseif-else Statements

## *PHP*

```
if ($age > 18) {  
    echo "Adult";  
} elseif ($age == 18) {  
    echo "Just turned adult";  
} else {  
    echo "Not an adult";  
}
```

## *Javascript*

```
if (age > 18) {  
    console.log("Adult");  
} else if (age === 18) {  
    console.log("Just turned adult");  
} else {  
    console.log("Not an adult");  
}
```

# Lab Exercise 1: Extended Simple Calculation

```
1 <?php
2 define("PI", 3.14159);
3 $earth_radius = 6371.0;
4 $earth_area = PI * $earth_radius ** 2;
5 $new_area = 12 * 9;
6 $msg = "Smaller than Earth";
7 if ($new_area > $earth_area) {
8     $msg = "Bigger than Earth";
9 }
10 ?>
11
12 <!DOCTYPE html>
13 <html>
14 <head>
15 <style>
16     body {
17         color: orange;
18     }
19 </style>
20 </head>
21 <body>
22
23 <p>What is the area of the circle at Earth's center?</p>
24 <?= $earth_area ?>
25 <br/>
26 <button><?= $msg ?></button>
27
28 <script>
29     console.log('test here');
30 </script>
31
32 </body>
33 </html>
```

What is the area of the circle at Earth's center?

127516010.26919

Smaller than Earth



# Program Controls contd.

Loops and Iterations TBC in Lecture 2



# Functions

TBC in Lecture 2



# Arrays

TBC in Lecture 2



# Classes & Objects

TBC in Lecture 2