# Everlytic Developer Assessment

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Please complete the answers to the questions below. The assessment should take roughly 30 minutes.

### What is the difference between public, protected and private in a class definition?

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| Public is available for use to other classes, private are for internal class use, and protected is |
| available for internal class use but also the subclasses. |
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### Given this code: function doSomething(&$foo) { $bar = $foo; $foo += 1; return $foo; } $value = 3; $result = doSomething($value); echo "value: $value, result: $result"; What will be output to screen and why?

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| Value: 4, result: 4 - Value is passed by reference to the method which alters the value even |
| outside of the scope of the method. |
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### What is wrong with this query: "SELECT \* FROM table WHERE id = $\_POST[ 'id' ]"?

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| It’s dangerous! Taking the id directly from the posted variable can allow for sql injection |
| Attacks or even just break the sql query. The post should be sanitized first. |
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### What is the cause of this warning: 'Warning: Cannot modify header information - headers already sent', and what is a good practice to prevent it?

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| A function/method is sending headers after output has been made. It could also be |
| Whitespace after closing PHP tags. It could also be the result of an attempt to debug, |
| Outputting a print or echo. |

### What is wrong with this code: class Foo { protected $bar; public function \_\_construct() { $this->bar = 1; } public static function doSomething() { return $this->bar; } }

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| The static function will not return this->bar, but will return an error instead. You cannot use |
| $this in static methods as they do not have access to the rest of the class unless you |
| Instantiate the object/class in the method. |

### Write a program that prints the numbers from 1 to 100. But for multiples of three print "Fizz" instead of the number and for the multiples of five print "Buzz". For numbers which are multiples of both three and five print "FizzBuzz".

function FizzBuzz() {

for ($i = 1; $i <=100; $i++)

{

$str = $i;

if ($i % 3 == 0) $str = 'Fizz';

if ($i % 5 == 0) $str = 'Buzz';

if (($i % 5 == 0) && ($i % 3 == 0)) $str = 'FizzBuzz';

echo '<pre>'.$i.' - '.$str.'</pre>';

}

}

FizzBuzz();

### **What does the following code do? Explain what’s going on there.**

$date = '08/26/2003';

print preg\_replace('/([0-9]+)\/([0-9]+)\/([0-9]+)/'‚ '$2/$1/$3', $date);

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| It will turn the mm/dd/Y around into format dd/mm/Y |
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### **Given a line of text $string, how would you write a regular expression to strip all the HTML tags from it?** preg\_replace('/<[^>]+>/', '$2', $string);

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### A palindrome is a word that reads the same backward or forward. Write a function that checks is a given word is a palindrome. Characters case should be ignored. EG. Deleveled is a palindrome and should return true as character case is ignored.

### <?php class Palindrome

### {

### public static function isPalindrome($word)

{

$ word\_lower= strtolower($word);

$word\_reverse = strrev($word\_lower);

if (strcmp($word\_lower, $word\_reverse) == 0) {

return 'Yes '.$word.' is a Palindrome';

} else {

return 'No '.$word.' is not a Palindrome';

}

}

### } echo Palindrome::isPalindrome('Deleveled');

### What security issue is prevalent in the code below and how would you fix it? <?php $messageStmt = $db->query('select message\_text from messages where message\_id = 1'); $messageStmt->execute(); $message = $messageStmt->fetch(PDO::FETCH\_OBJ); ?> <div><?= $message->message\_text; ?></div> \_not sure. Although the where message\_id = 1' bugs me. I suspect this could fall into sql injection attack territory.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

### Write an inner join for the following tables

Select User.FirstName, User.LastName, Address.Address1, Address.Address2, Address.City, Address.State, Address.ZipCode from User Right join Address on User.UserKey = Address.UsrKey

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