# 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: Methods or functions and variables are made available to any class when inherited from the current class |
| Protected: Methods or functions and variables of this access modifier are made available to only the current class and subclasses (and sometimes also same-package classes) of this class will have access to the field or method. |
| Methods or functions and variables of this access modifier are made available to only the current class |

### 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 referenced to $foo using the ampersand symbol and $foo is incremented by 1 hence $value is 4 and not 3 |
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### What is wrong with this query: "SELECT \* FROM table WHERE id = $\_POST[ 'id' ]"?

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| The query is prone to SQL injection and needs to be sanitized and if selecting a particular |
| field it’s a best practice to be specific when writing the query to avoid consuming lots of |
| memory. |

### 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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| This might be caused by whitespaces created within the file being worked on and needs to |
| be checked and removed |
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### 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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| Because static methods are callable without an instance of the object created, the pseudo- |
| variable $this is not available inside the method declared as static. |
| Hence an error of $this variable not in object context is thrown while calling the static 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".

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

if ($i % 16 == 0) {

echo 'FizzBuzz<br>';

} elseif ($i % 3 == 0) {

echo 'Fizz<br>';

} elseif ($i % 5 == 0) {

echo 'Buzz<br>';

} else {

echo $i . '<br>';

}

}

### **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);  
Date will be displayed in the order of the **replacement** statement specified in

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| preg\_replace() so we will have 26/08/2003 |
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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?** $string = preg\_replace ('/<[^>]\*>/', ' ', $string);

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| return $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)

{

{

$lowercasestr = strtolower($word);

$rev = strrev($lowercasestr);

if($rev == $lowercasestr){

return 'true';

} else{

return 'false';

}

}

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

### What is wrong with the following code 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>

### **There is no error handling and so should be implemented and also implement the prepare statement.** <?php

### $servername = "localhost";

### $dbusername = "root";

### $dbpassword = "";

### $dbname = "messages\_db";

### try{

### $db = new PDO("mysql:host=$servername;dbname=$dbname",$dbusername,$dbpassword);

### $db->setAttribute(PDO::ATTR\_ERRMODE, PDO::ERRMODE\_EXCEPTION);

### }

### catch(PDOException $e)

### {

### print "Error! Unable to connect: " . $e->getMessage() . "<br/>";

### die();

### }

### 

### $messageStmt = "select message\_text from messages where message\_id = 1";

### $stmt = $db->prepare($messageStmt);

### //Execute.

### $stmt->execute();

### 

### //Fetch.

### $message = $stmt->fetch(PDO::FETCH\_OBJ);

### ?>

### <div><?= $message->message\_text; ?></div>

### \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

### Write an inner join for the following tables

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| SELECT User.UserKey, User.FirstName, User.LastName, User.Email, Address.Address1, Address.City, Address.State, Address.ZipCode FROM Orders INNER JOIN Address ON User.UserKey=Address.UserKey; |
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