

ATCS - Google Maps Lab Comprehension Exam

Name: _____

Date: _____

Class #: _____

INSTRUCTIONS - READ THESE!

The purpose of this exam is to test your comprehension of Lab #4: Google Maps. The date is 2/13/19 and it is class #49. Please include those above with your name (-1 point per item omitted.) You absolutely should refer to your code for this! Point values below sum to 35. Your grade will be double your points (exam out of 70 pts.) Thanks for reading and good luck! :)

1. Per the lab description, which part (#) involved measuring the distance of the line? (1 pt)
2. Write **just** the **name of the function** from the Google Maps API that we used to determine how long the line is: (2 pts)
3. For this function call to work, it required that we make an update to our code that loads the API. What is the explicit modification we had to make (what additional text had to be written) (2 pts)
4. In the function `initMap()`, write the **single** line of code that, **if commented out**, would prevent a line from being created. (2 pts)
5. Our general **initial** algorithm for saving the line was to use a hidden textarea that would be updated to have a JSON representation of the lat/lng points of the line **each time** we pressed a *save button*. It would then submit the form to a "process page" that would save that JSON representation to a text file, and re-direct back to our map page, appending "&status=saved" to the URL. **Write the parameter** to the function that returns a JSON string representation of the points of the line. (2 pts)
6. Mr. Merlis then discussed with the class that there exists the ability to perform this save without having to leave the webpage. This can be performed with an _____ call. (Hint, "Cross country doesn't have an X." [That was Mr. M's response to a comment made about the acronym that is the answer to this question.]) (1 pt)
7. Write (**just**) the name of the JQuery function we used to perform this: _____ (Hint: Its first parameter **is** the process page.) (2 pts)
8. Why did we need to declare the variable **poly** as a global variable? (3 pts)
9. Mr. Merlis showed us a PHP function that returns a random number. Write **just** a call to that function to return a random number between 1234 and 4321. (Literally **just** the call. The result should not be printed in any fashion nor saved to any variable.) (2 pts)

10. On the process page, we have this line `fwrite($myfile, $txt);`

For this to work correctly, this process page requires that the second parameter to that function have the JSON representation of the points of the line. This page is called from within the `save_route()` function.

Below is the function call, omitting the `.done()` part.

```
$.post( "save_route.php", { route: r});
```

If that code were changed to be

```
$.post( "save_route.php", { line_path: r});
```

Write the change you would need to make on the process page: (3 pts)

11. When loading the line after we save it, it was necessary to make a slight change to the PHP representation of the saved JSON version of the line. This was accomplished with the use of a PHP string function. Write **just** the name of the PHP string function we used: (2 pts)

12. What change did this function have on the string? (2 pts)

13. The top of our code has this line:

```
if($LOAD_MAP = (!empty($_GET['status']) && $_GET['status'] == "saved"))
```

Where did we use the `$LOAD_MAP` variable in the code and for **what purpose**? (6 pts)

14. One of your classmates brought up an issue related to the filename of the saved path. Explain what the problem is as it relates to having people use this program and describe a solution that would prevent that from being a problem. (5 pts)