

## Server Developer - Assignment

### Javascript:

1. Explain event loop with an example ?
2. Explain the issue of callback hell and how it can be avoided with an example?
3. What is module.exports ?
4. Write an implementation of a function isInteger(x) that determines if x is an integer ?  
Use Mocha (or any testing framework) to test the function
5. Explain closure with an example ?
6. Explain difference between == and === ?

### Computer science:

7. What is a semaphore ?
8. What is a collision in a hash table ?
9. When do you use heap sort ? Is there a scenario where you use insertion sort over heap sort ?
10. What happens when an user types <https://www.google.com> in the browser ?
11. What in your opinion is a good code ?
12. What is garbage collection ?