WEB322 Test 1

# Instructions: Complete all questions in the spaces provided. This quiz is worth 10% of your final mark and you will have exactly 30 minutes to complete it.

# Question 1 (5 Marks):

Write a module called "counter" that exposes the following **3 functions** and has a variable named **privateCounter** which is a non-negative integer and initialized with 0. (**NOTE**: You may assume that you're writing your module inside a separate file "counter.js")

The module’s three functions:

## increase(num)

This function adds the value of "num" to the variable **privateCounter.**

## decrease(num)

This function decreases the variable **privateCounter** with the value of "num". If negative number occurs, the **privateCounter s**hould be set to 0.

## value()

This function will return the value of **privateCounter.**

## Usage Example (assuming "counter" references your module):

counter. increase (1);

counter. decrease (2);

console.log(counter. value ()); *// outputs 0*

counter. increase (5);

counter. decrease (2);

console.log(counter. value ()); *// outputs 3*

|  |
| --- |
| **// functions.js**  **let privateCounter = 0;**  **module.exports.increase = function(num){**  **privateCounter = privateCounter + num;**  **}**  **module.exports.decrease = function(num){**  **privateCounter = privateCounter - num;**  **if(privateCounter < 0){**  **privateCounter = 0;**  **}**  **}**  **module.exports.value = function(){**  **return privateCounter;**  **}** |
|  |
| **// counter.js**  **let counter = require("./functions");** |
|  |

# Question 2 (6 Marks):

Given the following code for server.js - fill in the blanks to ensure that it functions correctly when executed.

**var** express = require("express");

**var** app = express();

**var** path = require("path");

**var** HTTP\_PORT = process.env.PORT || 8080;

*// call this function after the http server starts listening for requests*

**function** onHttpStart() {

console.log("Express http server listening on: " + HTTP\_PORT);

}

*// setup a 'route' to listen on the default url path (http://localhost)*

app.get ( "/" , **function**(req,res){

res.send ("Hello World<br /><a href='/about'>Go to the about page</a>");

});

*// setup another route to listen on /about*

app.get ( "/about", **function**(req,res){

res.sendFile (path.join(\_\_dirname + "/views/about.html"));

});

*// setup http server to listen on HTTP\_PORT*

app.listen(HTTP\_PORT, onHTTPStart);