

MINGW64:/c/Users/User/documents/2025 winter/comp3133/lab2_mocha_test/test

```
User@DESKTOP-IAT96L8 MINGW64 ~ (main)
$ cd documents

User@DESKTOP-IAT96L8 MINGW64 ~/documents (main)
$ cd '2025 winter'

User@DESKTOP-IAT96L8 MINGW64 ~/documents/2025 winter (main)
$ cd comp3133

User@DESKTOP-IAT96L8 MINGW64 ~/documents/2025 winter/comp3133 (main)
$ cd lab_mocha_test
bash: cd: lab_mocha_test: No such file or directory

User@DESKTOP-IAT96L8 MINGW64 ~/documents/2025 winter/comp3133 (main)
$ cd lab2_mocha_test

User@DESKTOP-IAT96L8 MINGW64 ~/documents/2025 winter/comp3133/lab2_mocha_test (main)
$ npm init -y
wrote to C:\Users\User\documents\2025 winter\comp3133\lab2_mocha_test\package.json:

{
  "name": "lab2_mocha_test",
  "version": "1.0.0",
  "main": "index.js",
  "scripts": {
    "test": "echo \"Error: no test specified\" && exit 1"
  },
  "keywords": [],
  "author": "",
  "license": "ISC",
  "description": ""
}

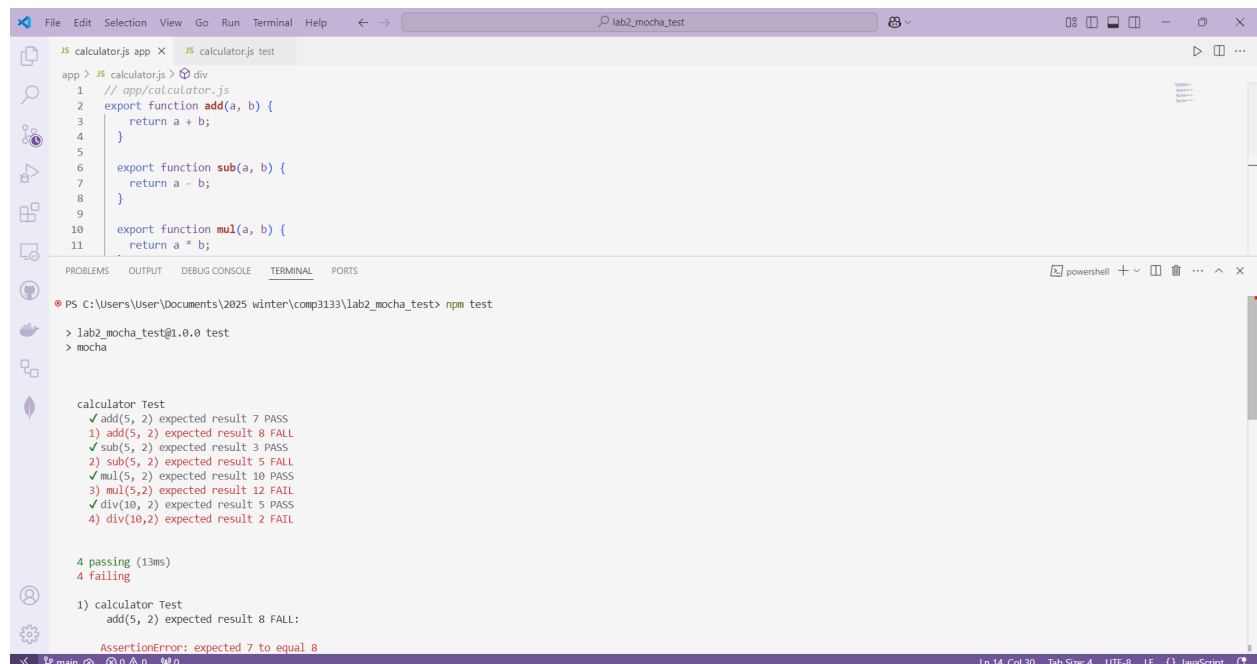
User@DESKTOP-IAT96L8 MINGW64 ~/documents/2025 winter/comp3133/lab2_mocha_test (main)
$ npm install --save mocha chai

added 110 packages, and audited 111 packages in 11s

30 packages are looking for funding
  run `npm fund` for details

found 0 vulnerabilities

User@DESKTOP-IAT96L8 MINGW64 ~/documents/2025 winter/comp3133/lab2_mocha_test (main)
$ cd test
```



The screenshot shows the VS Code editor with a file named `calculator.js` open. The file contains the following code:

```
1 // app/calculator.js
2 export function add(a, b) {
3   return a + b;
4 }
5
6 export function sub(a, b) {
7   return a - b;
8 }
9
10 export function mul(a, b) {
11   return a * b;
12 }
```

The terminal output shows the results of running `npm test` in the `lab2_mocha_test` directory. The test results are as follows:

```
calculator Test
  ✓ add(5, 2) expected result 7 PASS
  1) add(5, 2) expected result 8 FAIL
  ✓ sub(5, 2) expected result 3 PASS
  2) sub(5, 2) expected result 5 FAIL
  ✓ mul(5, 2) expected result 10 PASS
  3) mul(5, 2) expected result 12 FAIL
  ✓ div(10, 2) expected result 5 PASS
  4) div(10, 2) expected result 2 FAIL

4 passing (13ms)
4 failing

1) calculator Test
   add(5, 2) expected result 8 FAIL:
     AssertionError: expected 7 to equal 8
```

The screenshot shows the Visual Studio Code editor interface. The Explorer sidebar on the left displays the project structure with folders for 'calculatorjs app' and 'calculatorjs test'. The main editor area shows a JavaScript file named 'calculatorjs test' with the following code:

```
test > JS calculatorjs > ...
1 import { assert } from 'chai';
2 import { add, sub, mul, div } from '../app/calculator.js';
3
4 describe('calculator Test', function(){
5   //Add test
6   it('add(5, 2) expected result 7 PASS', function(){
7     assert.equal(add(5, 2), 7);
8   });
9   it('add(5, 2) expected result 8 FAIL', function(){
10    assert.equal(add(5, 2), 8);
11  });
12
13  //Sub test
14  it('sub(5, 2) expected result 3 PASS', function(){
15    assert.equal(sub(5, 2), 3);
16  });
17  it('sub(5, 2) expected result 5 FAIL', function(){
18    assert.equal(sub(5, 2), 5);
19  });
20
21  //mul test
22  it('mul(5, 2) expected result 10 PASS', function(){
23    assert.equal(mul(5, 2), 10);
24  });
25  it('mul(5,2) expected result 12 FAIL', function(){
26    assert.equal(mul(5, 2), 12);
27  });
28
29  //div test
30  it('div(10, 2) expected result 5 PASS', function(){
31    assert.equal(div(10, 2), 5);
32  });
33  it('div(10,2) expected result 2 FAIL', function(){
34    assert.equal(div(10, 2), 2);
35  });
36 });
```