



# Nodejs Unit Tests

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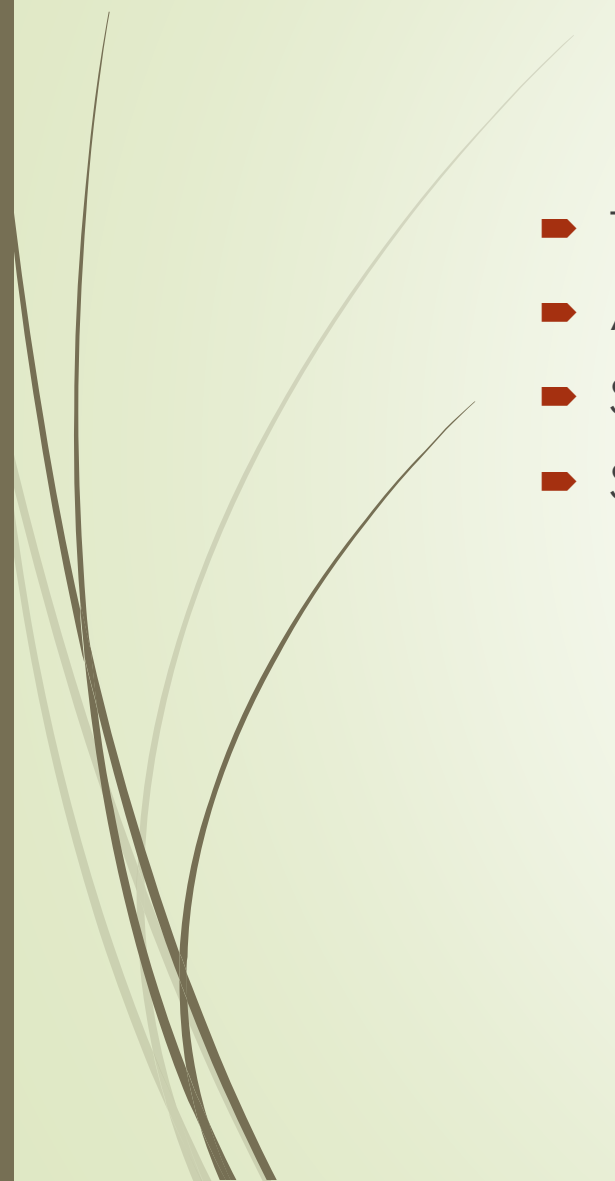


# FrameWorks

- Mocha
  - Chai
  - should
  - Expect
- QUNIT
- Jasmine
- Karma



# Mocha

- Test Framework
  - Asynchron
  - Simple
  - Spaßig
- 



# Optionen

- `--recursive`
- `--ui bdd`
- `--bail`
- `--reporter spec`
- `--timeout 75`
- `--slow`
- `--exit`



# Reporter

- SPEC
  - DOT Matrix
  - TAP
  - LIST
  - PROGRESS
  - JSON
  - MIN
  - LANDING
  - NYAN
- 



# Chai Assert

- `assert.exists(foo, 'foo ist `null` oder `undefined`');`
- `assert.isArray(['Werte'], 'Array muss übergeben werden');`
- `Assert.isString('Test', 'Test sollte ein String sein');`



# Chai Should

- `should.exists('foo');`
- `['Werte'].should.be.an('array');`
- `'Test'.should.be.a('string');`



# Chai Expect

- `Expect('foo', 'foo ist `null` oder `undefined`').to.exists();`
- `Expect(['Werte'], 'Array muss übergeben werden').to.be.an('array');`
- `Expect('Test', 'Test sollte ein String sein').to.be.a('string');`





# Testcase

```
it('0 should be an int', function(done){  
  expect(0).toBe.an('int');  
});
```



# Parametrisierte Testcase

```
[0,1,2,3,4,5,6,7,8,9].foreach(function(zahl){  
    it(zahl + ',should be an int', function(done){  
        expect(zahl).to.be.an('int');  
    } );  
});
```



# Testsuite

```
describe('Mathematischen Tests', function(){  
  it('5+5 should be equal to 10', function(){  
    expect(5+5).to.equal(10);  
  });  
  it('5*5 should be equal to 25', function(){  
    expect(5*5).to.equal(25);  
  });  
});
```

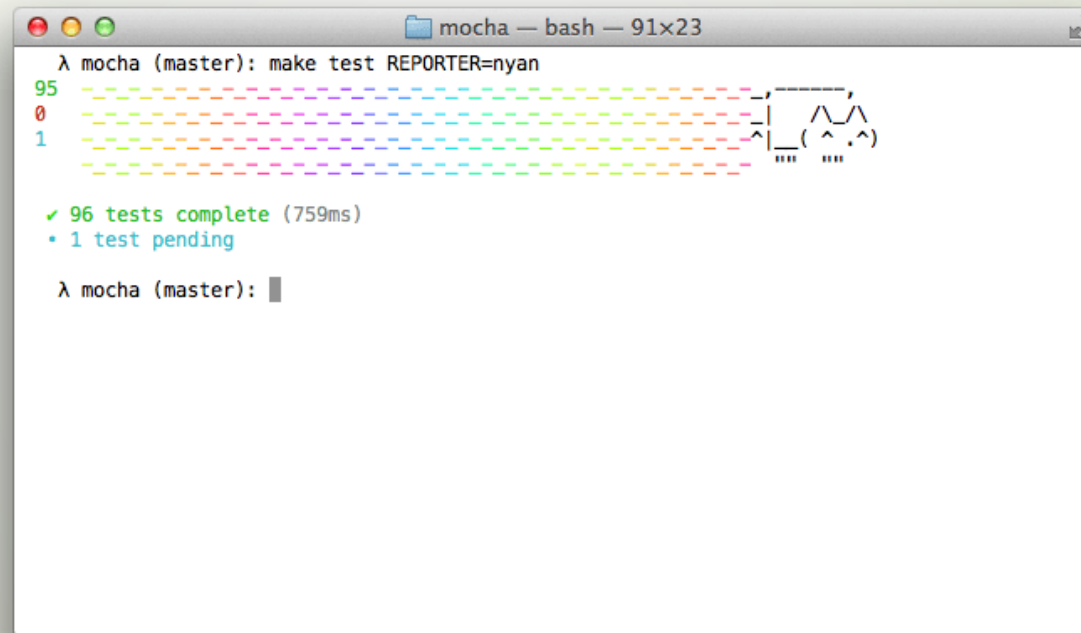


# Testsuite Wahn

```
describe('Datenbanken', function(){  
  describe('verbindung',function(){  
    describe('mysql',function(){  
      describe('localhost',function(){  
        // testcases  
      });  
    });  
  });  
});
```

# Spaß

## Reporter: nyan

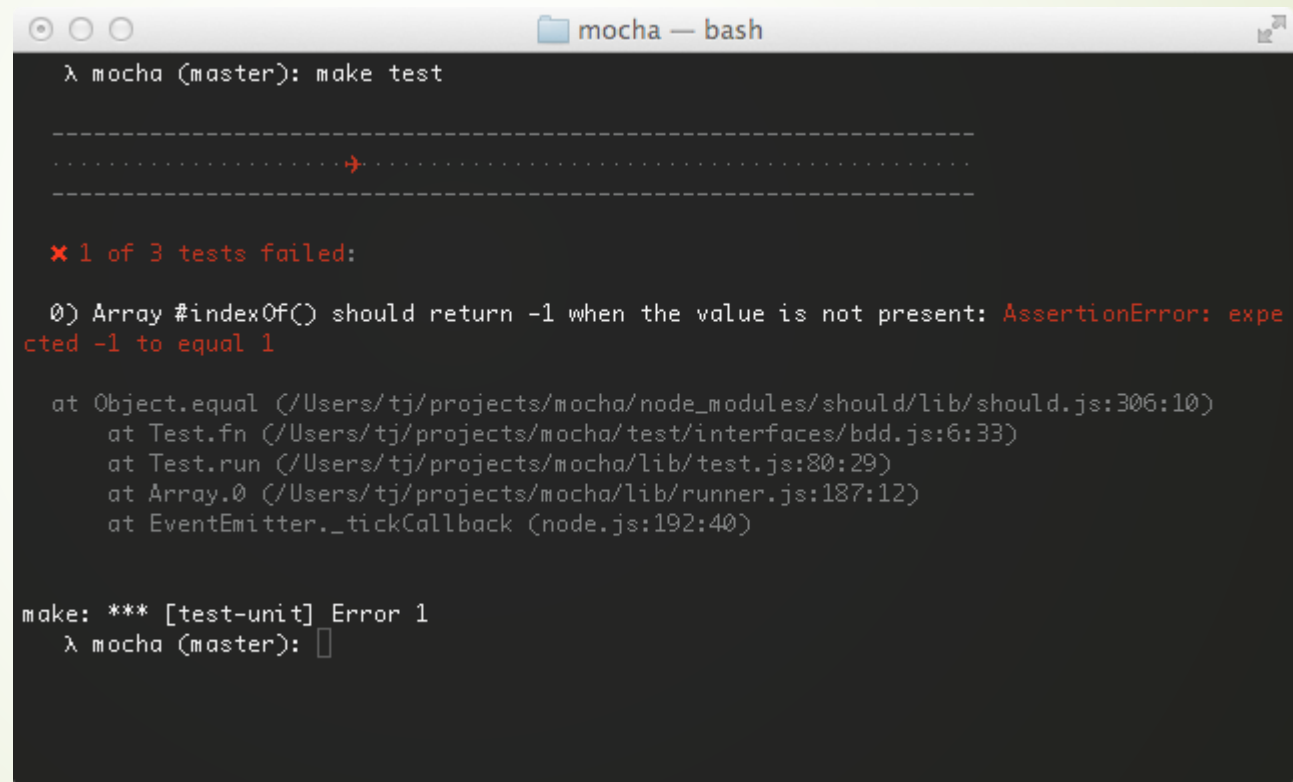


```
mocha — bash — 91x23
λ mocha (master): make test REPORTER=nyan
95
0
1
✓ 96 tests complete (759ms)
• 1 test pending
λ mocha (master):
```

The terminal window displays the output of a Mocha test run using the 'nyan' reporter. The output shows 96 tests completed in 759ms and 1 test pending. The Nyan reporter visualizes the test progress with a series of colorful dashed lines forming a cat-like shape on the right side of the terminal.

Quelle: <https://mochajs.org/>

# Spaß: Reporter landing

A terminal window titled 'mocha — bash' showing the output of a 'make test' command. The output displays a test failure for 'Array #indexOf()' with an 'AssertionError: expected -1 to equal 1'. The stack trace includes paths like '/Users/tj/projects/mocha/node\_modules/should/lib/should.js' and '/Users/tj/projects/mocha/test/interfaces/bdd.js'. The terminal ends with 'make: \*\*\* [test-unit] Error 1' and a prompt for the user.

```
λ mocha (master): make test

-----
.....→.....
-----

✖ 1 of 3 tests failed:

 0) Array #indexOf() should return -1 when the value is not present: AssertionError: expected -1 to equal 1

    at Object.equal (/Users/tj/projects/mocha/node_modules/should/lib/should.js:306:10)
    at Test.fn (/Users/tj/projects/mocha/test/interfaces/bdd.js:6:33)
    at Test.run (/Users/tj/projects/mocha/lib/test.js:80:29)
    at Array.0 (/Users/tj/projects/mocha/lib/runner.js:187:12)
    at EventEmitter._tickCallback (node.js:192:40)

make: *** [test-unit] Error 1
λ mocha (master):
```

Quelle: <https://mochajs.org/>



# Quellen

- <https://mochajs.org/>
  - <http://chaijs.com/>
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