Jest cheatsheet

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A quick overview to Jest, a test framework for Node.js. This guide targets Jest v20.

Quick start

```
/* Add to package.json */
"scripts": {
  "test": "jest"
}

# Run your tests
npm test -- --watch
```

See: Getting started

Writing tests

```
describe('My work', () => {
  test('works', () => {
    expect(2).toEqual(2);
  })
})
```

it is an alias for test. See: test()

Setup

```
beforeEach(() => { ... })
afterEach(() => { ... })

beforeAll(() => { ... })
afterAll(() => { ... })
```

See: afterAll() and more

Focusing tests

```
describe.only(...)
it.only(...) // alias: fit()
```

See: test.only

Skipping tests

```
describe.skip(...)
it.skip(...) // alias: xit()
```

See: test.skip

Expect

Basic expectations

```
expect(value)
  .not
  .toBe(value)
  .toEqual(value)
  .toBeTruthy()
```

Note that toEqual is a deep equality check. See: expect()

Snapshots

```
expect(value)
  .toMatchSnapshot()
```

Errors

```
expect(value)
  .toThrow(error)
  .toThrowErrorMatchingSnapshot()
```

Booleans

```
expect(value)
  .toBeFalsy()
  .toBeNull()
  .toBeTruthy()
  .toBeUndefined()
  .toBeDefined()
```

Numbers

```
expect(value)
  .toBeCloseTo(number, numDigits)
  .toBeGreaterThan(number)
  .toBeGreaterThanOrEqual(number)
  .toBeLessThan(number)
  .toBeLessThanOrEqual(number)
```

Objects

```
expect(value)
  .toBeInstanceOf(Class)
  .toMatchObject(object)
  .toHaveProperty(keyPath, value)
```

Objects

```
expect(value)
  .toContain(item)
  .toContainEqual(item)
  .toHaveLength(number)
```

Strings

```
expect(value)
  .toMatch(regexpOrString)
```

Others

```
expect.extend(matchers)
expect.any(constructor)
expect.addSnapshotSerializer(serializer)

expect.assertions(1)
```

More features

Asynchronous tests

```
...
})
```

```
test('works with promises', () => {
  ...
})

test('works with async/await', async () => {
  ...
})
```

Return promises, or use async/await. See: Async tutorial

Snapshots

```
it('works', () => {
  const output = slowToBig();

  expect(output).toMatchSnapshot();
})
```

First run creates a snapshot. Subsequent runs match the saved snapshot. See: Snapshot testing

React test renderer

```
import renderer from 'react-test-renderer'

it('works', () => {
  ...

  expect(tree).toMatchSnapshot()
})
```

React's test renderer can be used for Jest snapshots. See: Snapshot test

Timers

```
jest.useFakeTimers();

it('works', () => {
  jest.runOnlyPendingTimers();
  jest.runTimersToTime(1000);
  jest.runAllTimers();
})
```

See: Timer Mocks

Mock functions

Mock functions

```
const fn = jest.fn()

const fn = jest.fn(m => m * m)
```

See: Mock functions

Assertions

```
expect(fn)
  .toHaveBeenCalled()
  .toHaveBeenCalledTimes(number)
  .toHaveBeenCalledWith(arg1, arg2)
  .toHaveBeenLastCalledWith(arg1, arg2) ...

expect(fn)
  .toHaveBeenCalledWith(expect.anything())
  .toHaveBeenCalledWith(expect.any(constructor))
  .toHaveBeenCalledWith(expect.arrayContaining) ...
  .toHaveBeenCalledWith(expect.objectContaining) ...
  .toHaveBeenCalledWith(expect.stringContaining)
  .toHaveBeenCalledWith(expect.stringMatching(regexp))
```

Instances

```
const fn = jest.fn()

a = new fn()
b = new fn()

// => [a, b]
```

See: .mock property

Calls

```
const fn = jest.fn()
fn(1)
fn(2)

const fn = jest.fn()
fn('hello')

or:

jest.fn().mockReturnValue('hello')
jest.fn().mockReturnValueOnce('hello')
```

Mock implementations

```
const fn = jest.fn()

fn()  // => 1
fn()  // => 2
```

References

http://facebook.github.io/jest/

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