Living Documentation

# **Table of Contents**

Summary	1
Features	3
Asynchronous failing steps	3
Scenario: see asynchronously failing scenarios	3
Scenario: see asynchronously failing scenarios with exception	3
Asynchronous pending steps	4
Scenario: Pending step means the scenario is pending	4
Asynchronous step definition callbacks	5
Scenario: Execute feature with asynchronous step definition	5
Attachments	6
Scenario: Attach a buffer	6
Scenario: Attach a stream	8
Scenario: Attach from an around hook (pre scenario)	10
Scenario: Attach from an around hook (post scenario)	12
Scenario: Attach from a before hook	15
Scenario: Attach from an after hook	17
Scenario: Attach from a step definition	18
Background	21
Scenario: One scenario and a background	21
Scenario: Two scenarios and a background	22
CoffeeScript support	22
Scenario: CoffeeScript step definition	23
Command line interface	23
Scenario: run a single feature	23
Scenario: run a single scenario within feature	24
Scenario: run a single feature without step definitions	25
Scenario: run feature with non-default step definitions file location specified (-r option)	26
Scenario: run feature with step definitions in required directory (-r option)	27
Scenario: display Cucumber version	28
Scenario: display help	29
Scenario: display help (short flag)	29
Scenario: run a single failing feature	29
Scenario: run a single failing feature with an empty hooks file	30
Scenario: run a single failing feature with an AfterFeatures hook	32
Core feature elements execution	33
Scenario: Simple flat steps	33

	Scenario: Given, When, Then, And and But steps	
	Scenario: Step definition body is executed	
	Scenario: Steps accepting parameters	
	Scenario: Steps accepting a DocString parameter	
D	ata Tables	
	Scenario: a data table can be read as a hash	
E	nvironment Hooks40	
	Scenario: Tagged around hook with untagged scenario	
	Scenario: Hooks are steps	
	Scenario: Failing around hook (pre scenario) fails the scenario	
	Scenario: Failing around hook (pre scenario) fails the scenario	
	Scenario: Failing around hook (post scenario) fails the scenario	
	Scenario: Failing around hook (post scenario) fails the scenario	
	Scenario: Failing before hook fails the scenario	
	Scenario: Failing before hook fails the scenario	
	Scenario: Failing after hook fails the scenario	
	Scenario: Failing after hook fails the scenario	
	Scenario: Hooks still execute after a failure	
	Scenario: World is this in hooks	
JS	SON Formatter 67	
	Scenario: output JSON for a feature with no scenarios	
	Scenario: output JSON for a feature with one undefined scenario	
	Scenario: output JSON for a feature with one scenario with one undefined step	
	Scenario: output JSON for a feature with one undefined step and subsequent defined steps which 1	
	should be skipped	
	Scenario: output JSON for a feature with one scenario with one pending step	
	Scenario: output JSON for a feature with one scenario with failing step	
	Scenario: output JSON for a feature with one scenario with passing step	
	Scenario: output JSON for a scenario with a passing step followed by one that is pending and one78	
	that fails	
	Scenario: output JSON for a scenario with a pending step followed by one that passes and one th <b>80</b>	
	fails	
	Scenario: output JSON for one feature, one passing scenario, one failing scenario	
	Scenario: output JSON for multiple features	
	Scenario: output JSON for multiple features each with multiple scenarios	
	Scenario: output JSON for a feature with a background	
	Scenario: output JSON for a feature with a failing background	
	Scenario: output JSON for a feature with a DocString	

Scenario: output JSON for background step with a DocString	98
Scenario: output JSON for a feature with tags	. 100
Scenario: output JSON for scenario with tags	. 103
Scenario: output JSON for a step with table	. 105
Scenario: output JSON for background with table	. 106
Scenario: output JSON for a feature with one scenario outline with no examples tables	. 108
Scenario: output JSON for a feature with one scenario outline with an examples table with no	109
rows	
Scenario: output JSON for a feature with one scenario outline with an examples table with tw	o 110
rows	
Scenario: output JSON for a feature with one scenario outline with an examples table with tw	o 112
rows and a background	
Scenario: output JSON for a feature with one scenario outline with two examples tables $\ldots$	. 114
Scenario: output JSON for a feature with one scenario outline with an examples table with tw	o 116
rows and before, after and around hooks	
PogoScript support	. 120
Scenario: PogoScript step definition	. 120
Pretty Formatter	. 121
Scenario: Output pretty text for a feature with no scenarios	. 121
Scenario: Pretty formatter hides around, before and after hooks	. 122
Scenario: Failing hook is reported as a failed step	. 123
Scenario Outlines and Examples	. 124
Scenario: Basic outline	. 124
Scenario: Outline with table	. 126
Scenario: Outline with doc string	. 126
Scenario: Several outlines	. 127
Scenario Statuses	. 129
Scenario: Check scenario statuses	. 129
Scenario: Success status	. 132
Scenario: Failed status	. 134
Scenario: Pending status	. 137
Scenario: Undefined status	. 139
Scenario: Simultaneous statuses	. 141
Step definition callbacks	. 144
Scenario: fail with single-parameter error (Node.js style)	. 144
Scenario: succeed with promise	
Scenario: fail with promise	
Scenario: succeed synchronously	. 145

step definition snippets	
Scenario: escape regexp special characters	
Scenario: step matching groups	
Scenario: multiple matching groups	
Scenario: outline steps with examples	
step definitions with string pattern	
Scenario: step definition with string-based pattern	
Scenario: step definition with string-based pattern and parameters	
Scenario: step definition with string-based pattern and multiple parameters	148
Strict mode	149
Scenario: Succeed scenario with implemented step withstrict	149
Scenario: Fail scenario with undefined step withstrict	
Scenario: Fail Scenario with pending step withstrict	151
Scenario: Fail scenario with undefined step with -S	152
Scenario: Fail Scenario with pending step with -S	153
Summary Formatter	
Scenario: Output summary for a feature with no scenarios	
Scenario: Summary formatter hides around, before and after hooks	155
User logs into the system	156
Scenario: Unlogged user sees welcome page with login	156
Scenario: Minimal user sees welcome page with its username and logout	157
Scenario: Unlogged user logs in	157
Scenario: Logged user logs out	158
Scenario: Disconnected user sees welcome page and reconnect option	158
Scenario: User sees 'connecting' while connecting	159
World constructor callback with object	159
Scenario: scenario calling function on explicit world instance	

# **Summary**

Scenarios			Steps							Features: 22	
Passed	Failed	Total	Passed	Failed	Skippe d	Pendin g	Undefi ned	Missin g	Total	Durati on	Status
				Async	hronous	failing	steps				
1	1	2	5	0	2	0	1	0	8	019ms	failed
				Async	hronous	pending	steps				
1	0	1	6	0	0	0	0	0	6	013ms	passed
			Asy	nchronou	s step d	efinitio	on callba	acks			
1	0	1	4	0	0	0	0	0	4	061ms	passed
					Attacl	nments					
7	0	7	35	0	0	0	0	0	35	01s 711ms	passed
					Backg	round					
2	0	2	16	0	0	0	0	0	16	026ms	passed
				Со	ffeeScri	pt suppo	ort				
0	1	1	0	0	3	0	1	0	4	000ms	failed
				Com	mand lin	e interf	face				
11	0	11	50	0	0	0	0	0	50	02s 464ms	passed
				Core fea	ature el	ements e	xecution				
5	0	5	23	0	0	0	0	0	23	053ms	passed
					Data '	Tables					
1	0	1	3	0	0	0	0	0	3	007ms	passed
				E	nvironmo	ent Hook	S				
12	0	12	59	0	0	0	0	0	59	02s 906ms	passed
					JSON Fo	rmatter					
26	0	26	104	0	0	0	0	0	104	07s 438ms	passed
				Р	ogoScrip	t suppor	t				
0	1	1	0	0	3	0	1	0	4	000ms	failed
					Pretty F	ormatter	-				
3	0	3	13	0	0	0	0	0	13	816ms	passed
				Scenari	o Outlin	es and E	xamples				

S	Scenario	S				Steps				Features: 22			
4	0	4	31	0	0	0	0	0	31	050ms	passed		
Scenario Statuses													
6	0	6	30	0	0	0	0	0	30	01s 707ms	passed		
	Step definition callbacks												
1	3	4	4	0	6	0	6	0	16	010ms	failed		
				step	definit	ion snip	pets						
1	3	4	9	0	0	0	4	0	13	020ms	failed		
			st	ep defin	itions w	ith stri	ng patte	ern					
2	1	3	13	0	0	0	1	0	14	012ms	failed		
					Stric	t mode							
5	0	5	23	0	0	0	0	0	23	01s 366ms	passed		
					Summary	Formatte	Г						
2	0	2	8	0	0	0	0	0	8	514ms	passed		
				User	logs in	to the s	ystem						
0	6	6	0	0	0	0	29	0	29	000ms	failed		
			Wor	ld const	ructor o	allback	with obj	ject					
1	0	1	4	0	0	0	0	0	4	006ms	passed		
					Tot	als							
92	16	108	440	0	14	0	43	0	497	19s	210ms		

## **Features**

## Asynchronous failing steps

### Scenario: see asynchronously failing scenarios

Scenario: see asynchronously failing scenarios with exception

tags: @untestable-on-self

```
the following feature: do (000ms)

Feature: a feature
Scenario: a failing scenario
When I divide 10 by 0
Then the result is 9

And
the step "I divide 10 by 0" has a mapping asynchronously failing through an exception with the message "Divide by 0, uh?" (000ms)

When
Cucumber runs the feature (000ms)
```

## Asynchronous pending steps

Scenario: Pending step means the scenario is pending

the scenario called "a failing scenario" is reported as failing 📭 (000ms)

```
Given
a scenario with: ♠ (000ms)

When I add 4 and 5
Then the result is 9

And
the step "I add 4 and 5" has an asynchronous pending mapping ♠ (000ms)

And
the step "the result is 9" has a passing mapping ♠ (000ms)

When
Cucumber executes the scenario ♠ (013ms)

Then
the scenario is pending ♠ (000ms)

And
the step "the result is 9" is skipped ♠ (000ms)
```

## Asynchronous step definition callbacks

In order to test asynchronous code
As a dev
I want step definitions to call back asynchronously

Scenario: Execute feature with asynchronous step definition

```
a step definition matching /^an asynchronous step passes$/ calling back asynchronously after 50 milliseconds • (000ms)

And
a step definition matching /^a step passes$/ • (000ms)

When
I run the following feature: • (060ms)

Feature: Asynchronous step definition body
Scenario: Waiting for an asynchronous step to call back
When an asynchronous step passes
Then a step passes

Then
the feature should have run successfully • (000ms)
```

## **Attachments**

#### Scenario: Attach a buffer

a file named "features/support/hooks.js" with: • (001ms)

```
var hooks = function () {
  this.Before(function(scenario, callback) {
    scenario.attach(new Buffer([100, 97, 116, 97]), 'image/png');
    callback();
  });
};
module.exports = hooks;
```

#### When

```
I run cucumber.js -f json i (196ms)
```

#### Then

it outputs this json: **★** (002ms)

```
{
    "id": "some-feature",
    "name": "some feature",
    "description": "",
    "line": 1,
    "keyword": "Feature",
    "uri": "<current-directory>/features/a.feature",
    "elements": [
      {
        "name": "I've declared one step and it is passing",
        "id": "some-feature; i've-declared-one-step-and-it-is-passing",
        "line": 3,
        "keyword": "Scenario",
        "description": "",
        "type": "scenario",
        "steps": [
          {
            "keyword": "Before ",
            "hidden": true,
            "result": {
              "duration": "<duration>",
              "status": "passed"
            },
            "match": {},
            "embeddings": [
              {
```

#### Scenario: Attach a stream

```
Given
a file named "features/a.feature" with: ♠ (003ms)

Feature: some feature

Scenario: I've declared one step and it is passing
    Given This step is passing

And
a file named "features/step_definitions/cucumber_steps.js" with: ♠ (001ms)

var cucumberSteps = function() {
    this.Given(/^This step is passing$/, function(callback) { callback(); });
};
module.exports = cucumberSteps;

And
a file named "features/support/hooks.js" with: ♠ (001ms)
```

```
var hooks = function () {
 this.Before(function(scenario, callback) {
    var Stream = require('stream');
    var versionParts = /v(\d+)\.(\d+)/.exec(process.version);
    var major = parseInt(versionParts[0], 10);
    var minor = parseInt(versionParts[1], 10);
    if (major > 0 || minor >= 10) {
      var stream = new Stream.Readable();
      stream._read = function() {};
      stream.push(new Buffer([100, 97, 116, 97]));
      stream.push(null);
      scenario.attach(stream, 'image/png', function(error) {
       callback(error);
      });
    else {
      scenario.attach(new Buffer([100, 97, 116, 97]), 'image/png');
      callback();
   }
 });
};
module.exports = hooks;
```

When

I run cucumber.js -f json i (249ms)

Then

it outputs this json: **★** (000ms)

```
[
    "id": "some-feature",
    "name": "some feature",
    "description": "",
    "line": 1,
    "keyword": "Feature",
    "uri": "<current-directory>/features/a.feature",
    "elements": [
      {
         "name": "I've declared one step and it is passing",
         "id": "some-feature;i've-declared-one-step-and-it-is-passing",
         "line": 3,
```

```
"keyword": "Scenario",
        "description": "",
        "type": "scenario",
        "steps": [
            "keyword": "Before ",
            "hidden": true,
            "result": {
              "duration": "<duration>",
              "status": "passed"
            },
            "match": {},
            "embeddings": [
                "mime_type": "image/png",
                "data": "ZGF0YQ=="
            ]
          },
            "name": "This step is passing",
            "line": 4,
            "keyword": "Given ",
            "result": {
              "duration": "<duration>",
              "status": "passed"
            },
            "match": {}
     }
    1
 }
]
```

### Scenario: Attach from an around hook (pre scenario)

```
Given

a file named "features/a.feature" with: ♠ (004ms)

Feature: some feature

Scenario: I've declared one step and it is passing
Given This step is passing
```

a file named "features/step\_definitions/cucumber\_steps.js" with: **▲** (001ms)

```
var cucumberSteps = function() {
  this.Given(/^This step is passing$/, function(callback) { callback(); });
};
module.exports = cucumberSteps;
```

#### And

a file named "features/support/hooks.js" with: **★** (001ms)

```
var hooks = function () {
   this.Around(function(scenario, runScenario) {
      scenario.attach("text");

   runScenario(function(scenario, callback) {
      callback();
      });
   });
});
module.exports = hooks;
```

#### When

I run cucumber.js -f json i (286ms)

#### Then

it outputs this json: d (000ms)

```
"description": "",
        "type": "scenario",
        "steps": [
            "keyword": "Around ",
            "hidden": true,
            "result": {
              "duration": "<duration>",
              "status": "passed"
            },
            "match": {},
            "embeddings": [
              {
                "mime_type": "text/plain",
                "data": "dGV4dA=="
            1
          },
            "name": "This step is passing",
            "line": 4,
            "keyword": "Given ",
            "result": {
              "duration": "<duration>",
              "status": "passed"
            },
            "match": {}
          },
            "keyword": "Around ",
            "hidden": true,
            "result": {
              "duration": "<duration>",
              "status": "passed"
            },
            "match": {}
     }
   1
 }
]
```

### Scenario: Attach from an around hook (post scenario)

a file named "features/a.feature" with: 🌢 (004ms)

```
Feature: some feature

Scenario: I've declared one step and it is passing
Given This step is passing
```

#### And

```
var cucumberSteps = function() {
  this.Given(/^This step is passing$/, function(callback) { callback(); });
};
module.exports = cucumberSteps;
```

#### And

a file named "features/support/hooks.js" with: **★** (000ms)

```
var hooks = function () {
   this.Around(function(scenario, runScenario) {
     runScenario(function(callback) {
        scenario.attach("text");
        callback();
     });
   });
};
module.exports = hooks;
```

#### When

```
I run cucumber.js -f json d (258ms)
```

#### Then

it outputs this json: ๗ (000ms)

```
"keyword": "Feature",
"uri": "<current-directory>/features/a.feature",
"elements": [
    "name": "I've declared one step and it is passing",
    "id": "some-feature; i've-declared-one-step-and-it-is-passing",
    "line": 3,
    "keyword": "Scenario",
    "description": "",
    "type": "scenario",
    "steps": [
        "keyword": "Around ",
        "hidden": true,
        "result": {
          "duration": "<duration>",
          "status": "passed"
        },
        "match": {}
      },
        "name": "This step is passing",
        "line": 4,
        "keyword": "Given ",
        "result": {
          "duration": "<duration>",
          "status": "passed"
        },
        "match": {}
      },
        "keyword": "Around ",
        "hidden": true,
        "result": {
          "duration": "<duration>",
          "status": "passed"
        },
        "match": {},
        "embeddings": [
         {
            "mime_type": "text/plain",
            "data": "dGV4dA=="
        ]
     }
   1
 }
```

```
]
```

#### Scenario: Attach from a before hook

```
Given
  a file named "features/a.feature" with: •• (003ms)
 Feature: some feature
 Scenario: I've declared one step and it is passing
     Given This step is passing
And
  var cucumberSteps = function() {
   this.Given(/^This step is passing$/, function(callback) { callback(); });
 };
 module.exports = cucumberSteps;
And
  var hooks = function () {
   this.Before(function(scenario, callback) {
     scenario.attach("text");
     callback();
   });
 };
 module.exports = hooks;
When
  I run cucumber.js -f json d (208ms)
Then
  it outputs this json: ★ (000ms)
```

```
"id": "some-feature",
    "name": "some feature",
    "description": "",
    "line": 1,
    "keyword": "Feature",
    "uri": "<current-directory>/features/a.feature",
    "elements": [
      {
        "name": "I've declared one step and it is passing",
        "id": "some-feature; i've-declared-one-step-and-it-is-passing",
        "line": 3,
        "keyword": "Scenario",
        "description": "",
        "type": "scenario",
        "steps": [
          {
            "keyword": "Before ",
            "hidden": true,
            "result": {
              "duration": "<duration>",
              "status": "passed"
            },
            "match": {},
            "embeddings": [
              {
                "mime_type": "text/plain",
                "data": "dGV4dA=="
          },
            "name": "This step is passing",
            "line": 4,
            "keyword": "Given ",
            "result": {
              "duration": "<duration>",
              "status": "passed"
            },
            "match": {}
      }
   ]
 }
]
```

#### Scenario: Attach from an after hook

```
Given
  a file named "features/a.feature" with: •• (002ms)
  Feature: some feature
  Scenario: I've declared one step and it is passing
      Given This step is passing
And
  a file named "features/step_definitions/cucumber_steps.js" with: d (000ms)
  var cucumberSteps = function() {
   this.Given(/^This step is passing$/, function(callback) { callback(); });
  };
  module.exports = cucumberSteps;
And
  var hooks = function () {
   this.After(function(scenario, callback) {
      scenario.attach("text");
      callback();
   });
  };
  module.exports = hooks;
When
  I run cucumber.js -f json d (247ms)
Then
  it outputs this json: ★ (002ms)
  "id": "some-feature",
      "name": "some feature",
      "description": "",
```

```
"line": 1,
    "keyword": "Feature",
    "uri": "<current-directory>/features/a.feature",
    "elements": [
      {
        "name": "I've declared one step and it is passing",
        "id": "some-feature; i've-declared-one-step-and-it-is-passing",
        "line": 3,
        "keyword": "Scenario",
        "description": "",
        "type": "scenario",
        "steps": [
          {
            "name": "This step is passing",
            "line": 4,
            "keyword": "Given ",
            "result": {
              "duration": "<duration>",
              "status": "passed"
            },
            "match": {}
          },
            "keyword": "After ",
            "hidden": true,
            "result": {
              "duration": "<duration>",
              "status": "passed"
            },
            "match": {},
            "embeddings": [
                "mime_type": "text/plain",
                "data": "dGV4dA=="
            ]
          }
        ]
     }
   1
 }
]
```

### Scenario: Attach from a step definition

a file named "features/a.feature" with: 🍁 (004ms)

```
Feature: some feature

Scenario: I've declared one step and it is passing

Given This step is passing
```

#### And

a file named "features/step\_definitions/cucumber\_steps.js" with: d (001ms)

```
var cucumberSteps = function() {
  this.Given(/^This step is passing$/, function(callback) {
    var world = this;
    world.scenario.attach("text");
    callback();
  });
};
module.exports = cucumberSteps;
```

#### And

a file named "features/support/hooks.js" with: ๗ (001ms)

```
var hooks = function () {
  this.Before(function(scenario, callback) {
    var world = this;
    world.scenario = scenario;
    callback();
  });
};
module.exports = hooks;
```

#### When

```
I run cucumber.js -f json d (215ms)
```

#### Then

it outputs this json: **★** (000ms)

```
[
{
    "id": "some-feature",
```

```
"name": "some feature",
    "description": "",
    "line": 1,
    "keyword": "Feature",
    "uri": "<current-directory>/features/a.feature",
    "elements": [
        "name": "I've declared one step and it is passing",
        "id": "some-feature;i've-declared-one-step-and-it-is-passing",
        "line": 3,
        "keyword": "Scenario",
        "description": "",
        "type": "scenario",
        "steps": [
          {
            "keyword": "Before ",
            "hidden": true,
            "result": {
              "duration": "<duration>",
              "status": "passed"
            },
            "match": {}
          },
            "name": "This step is passing",
            "line": 4,
            "keyword": "Given ",
            "result": {
              "duration": "<duration>",
              "status": "passed"
            },
            "match": {},
            "embeddings": [
              {
                "mime_type": "text/plain",
                "data": "dGV4dA=="
            ]
          }
        1
      }
   ]
  }
]
```

## **Background**

Background allows you to add some context to the scenarios in a single feature. A Background is much like a scenario containing a number of steps. The difference is when it is run. The background is run before each of your scenarios but after any of your Before Hooks.

### Scenario: One scenario and a background

```
Given
   the following feature: d (000ms)
  Feature: testing scenarios
    Background:
      Given a background step
    Scenario:
      When a scenario step
And
   the step "a background step" has a passing mapping d (000ms)
And
   the step "a scenario step" has a passing mapping d (000ms)
When
   Cucumber runs the feature (009ms)
Then
   the feature passes de (000ms)
And
   the step "a background step" passes 🌢 (000ms)
And
   the step "a scenario step" passes ๗ (000ms)
```

### Scenario: Two scenarios and a background

```
Given
   the following feature: d (000ms)
  Feature: testing scenarios
    Background:
      Given a background step
    Scenario:
      When a scenario step
    Scenario:
      When a second scenario step
And
   the step "a background step" has a passing mapping d (000ms)
And
   the step "a scenario step" has a passing mapping i (000ms)
And
   the step "a second scenario step" has a passing mapping d (000ms)
When
   Cucumber runs the feature do (014ms)
Then
   the feature passes de (000ms)
And
   the step "a background step" passes i (000ms)
And
   the step "a scenario step" passes i (000ms)
And
   the step "a second scenario step" passes 👍 (000ms)
```

## **CoffeeScript support**

In order to use the JS dialect I'm most comfortable with As a step definition implementor I want to use CoffeeScript for writing step definitions

## Scenario: CoffeeScript step definition

```
Given
a mapping written in CoffeeScript ♥ (000ms)

When
Cucumber executes a scenario using that mapping ♥ (000ms)

Then
the feature passes ♥ (000ms)

And
the mapping is run ♥ (000ms)
```

## Command line interface

In order to run cucumber in different contexts As a person who wants to run features I want to run Cucumber on the command line

Scenario: run a single feature

```
Given
  a file named "features/a.feature" with: •• (003ms)
  Feature: some feature
   Scenario:
     When a step is passing
And
  var cucumberSteps = function() {
   this.When(/^a step is passing$/, function(callback) { callback(); });
 };
 module.exports = cucumberSteps;
When
  I run cucumber.js -f progress features/a.feature d (297ms)
Then
  it outputs this text: ★ (000ms)
 1 scenario (1 passed)
 1 step (1 passed)
And
  the exit status should be 0 d (000ms)
```

Scenario: run a single scenario within feature

```
Given
  a file named "features/a.feature" with: •• (003ms)
 Feature: some feature
   Scenario: first scenario
     When a step is passing
   Scenario: second scenario
     When a step does not exist
And
  var cucumberSteps = function() {
   this.When(/^a step is passing$/, function(callback) { callback(); });
 };
 module.exports = cucumberSteps;
When
  Then
  it outputs this text: ★ (000ms)
 1 scenario (1 passed)
 1 step (1 passed)
And
  the exit status should be 0 d (000ms)
```

Scenario: run a single feature without step definitions

```
Given
   a file named "features/a.feature" with: ♣ (001ms)
  Feature: some feature
    Scenario:
      When a step is undefined
When
   I run cucumber.js -f progress features/a.feature d (189ms)
Then
  it outputs this text: ๗ (000ms)
  IJ
  1 scenario (1 undefined)
  1 step (1 undefined)
  You can implement step definitions for undefined steps with these snippets:
  this.When(/^a step is undefined$/, function (callback) {
    // Write code here that turns the phrase above into concrete actions
    callback.pending();
  });
And
   the exit status should be 0 d (000ms)
```

Scenario: run feature with non-default step definitions file location specified (-r option)

```
Given
   a file named "features/a.feature" with: •• (002ms)
  Feature: some feature
    Scenario:
      When a step is passing
And
   a file named "step_definitions/cucumber_steps.js" with: ★ (000ms)
  var cucumberSteps = function() {
    this.When(/^a step is passing$/, function(callback) { callback(); });
  };
  module.exports = cucumberSteps;
When
   I run cucumber.js -f progress features/a.feature -r step_definitions/cucumber_steps.js ⋅ d
   (196ms)
Then
   it outputs this text: ★ (000ms)
  1 scenario (1 passed)
  1 step (1 passed)
And
   the exit status should be 0 d (000ms)
```

Scenario: run feature with step definitions in required directory (-r option)

```
Given
   a file named "features/a.feature" with: •• (003ms)
  Feature: some feature
    Scenario:
      When a step is passing
And
   a file named "step_definitions/cucumber_steps.js" with: ๗ (000ms)
  var cucumberSteps = function() {
    this.When(/^a step is passing$/, function(callback) { callback(); });
  };
  module.exports = cucumberSteps;
When
   I run cucumber.js -f progress features/a.feature -r step_definitions d (285ms)
Then
   it outputs this text: ★ (000ms)
  1 scenario (1 passed)
  1 step (1 passed)
And
   the exit status should be 0 d (000ms)
```

## Scenario: display Cucumber version

```
When

I run cucumber.js --version → (102ms)

Then

I see the version of Cucumber → (000ms)

And

the exit status should be 0 → (000ms)
```

### Scenario: display help

```
When
I run cucumber.js --help ★ (097ms)

Then
I see the help of Cucumber ★ (000ms)

And
the exit status should be 0 ★ (000ms)
```

## Scenario: display help (short flag)

## Scenario: run a single failing feature

```
Given
   a file named "features/a.feature" with: •• (003ms)
  Feature: some feature
    Scenario:
      When a step is failing
And
   a file named "features/step_definitions/cucumber_steps.js" with: d (000ms)
  var cucumberSteps = function() {
    this.When(/^a step is failing$/, function(callback) { callback("forced error");
  });
  };
  module.exports = cucumberSteps;
When
   I run cucumber.js -f progress features/a.feature d (296ms)
Then
   it outputs this text: ★ (000ms)
  F
  (::) failed steps (::)
  forced error
  Failing scenarios:
  <current-directory>/features/a.feature:2 # Scenario:
  1 scenario (1 failed)
  1 step (1 failed)
And
   the exit status should be 1 do (000ms)
```

Scenario: run a single failing feature with an empty hooks file

```
Given
   a file named "features/a.feature" with: ★ (002ms)
  Feature: some feature
    Scenario:
      When a step is failing
And
   a file named "features/step_definitions/cucumber_steps.js" with: d (001ms)
  var cucumberSteps = function() {
    this.When(/^a step is failing$/, function(callback) { callback("forced error");
  });
  };
  module.exports = cucumberSteps;
And
   a file named "features/support/hooks.js" with: • (001ms)
When
   I run cucumber.js -f progress features/a.feature d (199ms)
Then
   it outputs this text: ★ (000ms)
  F
  (::) failed steps (::)
  forced error
  Failing scenarios:
  <current-directory>/features/a.feature:2 # Scenario:
  1 scenario (1 failed)
  1 step (1 failed)
And
   the exit status should be 1 de (000ms)
```

## Scenario: run a single failing feature with an AfterFeatures hook

```
Given
  a file named "features/a.feature" with: 🕯 (004ms)
  Feature: some feature
    Scenario:
      When a step is failing
And
   a file named "features/step definitions/cucumber steps.js" with: • (000ms)
  var cucumberSteps = function() {
    this.When(/^a step is failing$/, function(callback) { callback("forced error");
  });
  };
  module.exports = cucumberSteps;
And
   a file named "features/support/hooks.js" with: • (000ms)
  var hooks = function() {
    this.registerHandler('AfterFeatures', function (event, callback) {
      callback();
    });
  };
  module.exports = hooks;
When
   I run cucumber.js -f progress features/a.feature d (269ms)
Then
   it outputs this text: ★ (000ms)
```

And

the exit status should be 1 de (000ms)

# Core feature elements execution

In order to have automated acceptance tests As a developer I want Cucumber to run core feature elements

Scenario: Simple flat steps

Scenario: Given, When, Then, And and But steps

```
Given
  a "Given" step definition matching /^a "Given" step passes$/ ★ (000ms)
And
  a "When" step definition matching /^a "When" step passes$/ i (000ms)
And
  When
  I run the following feature: d (011ms)
  Feature: Given, When, Then, And and But step execution
    Scenario: All kinds of steps
     Given a "Given" step passes
     When a "When" step passes
     Then a "Then" step passes
   Scenario: All kinds of steps with And's and But's
     Given a "Given" step passes
     And a "Given" step passes
     But a "Given" step passes
     When a "When" step passes
     And a "When" step passes
     But a "When" step passes
     Then a "Then" step passes
     And a "Then" step passes
     But a "Then" step passes
Then
  the feature should have run successfully do (000ms)
```

# Scenario: Step definition body is executed

### Given

a step definition matching /^I call a watched step\$/ counting its calls ★ (000ms)

### And

a step definition matching /^the watched step should have been called (d+) times?\$/ checking the number of step calls d (000ms)

### When

```
Feature: Step definition body execution
Scenario: Step definition body is executed once
When I call a watched step
Then the watched step should have been called 1 time

Scenario: Step definition body is executed several times
When I call a watched step
And I call a watched step
And I call a watched step
Then the watched step should have been called 3 times
```

### Then

the feature should have run successfully die (000ms)

## Scenario: Steps accepting parameters

### Given

a step definition matching /^I call a step with "(.\*)"\$/ recording its parameters **♣** (000ms)

### And

a step definition matching /^I call a step with "(.)", "(.)" and "(.\*)"\$/ recording its parameters definition matching /^I call a step with "(.)", "(.)" and "(.\*)"\$/ recording its parameters definition matching /^I call a step with "(.)", "(.)" and "(.\*)"\$/ recording its parameters definition matching /^I call a step with "(.)", "(.)" and "(.\*)"\$/ recording its parameters definition matching /^I call a step with "(.)", "(.)" and "(.\*)"\$/ recording its parameters definition matching /^I call a step with "(.)", "(.)" and "(.\*)"\$/ recording its parameters definition matching /^I call a step with "(.)", "(.)" and "(.\*)"\$/ recording its parameters definition matching /^I call a step with "(.)" and "(.\*)" and "(

#### And

a step definition matching /^the (\d+)(?:st|nd|rd) received parameter should be "(.\*)"\$/ checking a recorded parameter  $\clubsuit$  (000ms)

### When

I run the following feature: d (006ms)

```
Feature: Steps receiving parameters

Scenario: Single-parameter step
When I call a step with "a parameter"

Then the 1st received parameter should be "a parameter"

Scenario: Three-parameter step
When I call a step with "one", "two" and "three"
Then the 1st received parameter should be "one"
And the 2nd received parameter should be "two"
And the 3rd received parameter should be "three"
```

#### Then

the feature should have run successfully do (000ms)

### Scenario: Steps accepting a DocString parameter

#### Given

a step definition matching /^I call a step with the following text:\$/ recording its parameters definition matching /^I call a step with the following text:\$/ recording its parameters definition matching /^I call a step with the following text:\$/ recording its parameters definition matching /^I call a step with the following text:\$/ recording its parameters definition matching /^I call a step with the following text:\$/ recording its parameters definition matching /^I call a step with the following text:\$/ recording its parameters definition matching /^I call a step with the following text:\$/ recording its parameters definition matching /^I call a step with the following text:\$/ recording its parameters definition matching /^I call a step with the following text:\$/ recording its parameters definition matching /^I call a step with the following text:\$/ recording its parameters definition matching /^I call a step with the following text:\$/ recording its parameters definition matching /^I call a step with the following text:\$/ recording its parameters definition matching /^I call a step with the following text:\$/ recording its parameters definition matching /^I call a step with the following text:\$/ recording its parameters definition matching /^I call a step with the following text:\$/ recording its parameters definition matching /^I call a step with the following text:\$/ recording its parameters definition matching /^I call a step with the following text:\$/ recording its parameters definition matching /^I call a step with the following text:\$/ recording its parameters definition matching /^I call a step with the following text:\$/ recording its parameters definition matching /^I call a step with the following text:\$/ recording its parameters definition matching /^I call a step with the following text:\$/ recording its parameters definition matching /^I call a step with the following text:\$/ recording its parameters definition with the following text:\$/ recording its parameters definition with the following text:\$/ re

#### And

a step definition matching  $/^I$  call a step with "(.\*)" and the following text:\$/ recording its parameters  $\clubsuit$  (000ms)

#### And

a step definition matching /^the (\d+)(?:st|nd) received parameter should be "(.\*)"\$/ checking a recorded parameter  $$ \stackrel{\bullet}{•} $ (000ms) $$ 

### And

a step definition matching /^the (\d+)(?:nd) received parameter should be:\$/ checking a recorded parameter  $\clubsuit$  (000ms)

### When

I run the following feature: ๗ (010ms)

Feature: Steps receiving a DocString parameter Scenario: One-liner DocString parameter When I call a step with the following text: The cucumber (Cucumis sativus) is a widely cultivated plant in the gourd family Cucurbitaceae. Then the 1st received parameter should be "The cucumber (Cucumis sativus) is a widely cultivated plant in the gourd family Cucurbitaceae." Scenario: Matching group and one-liner DocString When I call a step with "Cucumber" and the following text: The cucumber (Cucumis sativus) is a widely cultivated plant in the gourd family Cucurbitaceae. Then the 1st received parameter should be "Cucumber" And the 2nd received parameter should be "The cucumber (Cucumis sativus) is a widely cultivated plant in the gourd family Cucurbitaceae." Scenario: Matching group and multiline DocString When I call a step with "Cucumber" and the following text: cu·cum·ber |'kyoōˌkəmbər| noun 1. a long, green-skinned fruit with watery flesh, usually eaten raw in salads or pickled.

2. the climbing plant of the gourd family that yields this fruit, native to the Chinese Himalayan region. It is widely cultivated but very rare in the wild. • Cucumis sativus, family Cucurbitaceae.

Then the 1st received parameter should be "Cucumber" And the 2nd received parameter should be:

cu·cum·ber |'kyoō,kəmbər| noun

- 1. a long, green-skinned fruit with watery flesh, usually eaten raw in salads or pickled.
- 2. the climbing plant of the gourd family that yields this fruit, native to the Chinese Himalayan region. It is widely cultivated but very rare in the wild. Cucumis sativus, family Cucurbitaceae.

11 11 11

#### Then

## **Data Tables**

### Scenario: a data table can be read as a hash

# **Environment Hooks**

# Scenario: Tagged around hook with untagged scenario

```
Given
an around hook tagged with "@foo" ♣ (000ms)

When
Cucumber executes a scenario with no tags ♣ (004ms)

Then
the hook is not fired ♣ (000ms)
```

## Scenario: Hooks are steps

```
Given
a file named "features/a.feature" with: ♠ (002ms)
```

```
Feature: some feature

Scenario: I've declared one step and it is passing

Given This step is passing
```

### And

a file named "features/step\_definitions/cucumber\_steps.js" with: ┪ (000ms)

```
var cucumberSteps = function() {
  this.Given(/^This step is passing$/, function(callback) { callback(); });
};
module.exports = cucumberSteps;
```

### And

a file named "features/support/hooks.js" with: **▲** (000ms)

```
var hooks = function () {
  this.Before(function(callback) {
    callback();
  });

this.After(function(callback) {
    callback();
  });

this.Around(function(runScenario) {
    runScenario(function(callback) {
      callback();
    });
  });
};

module.exports = hooks;
```

### When

```
I run cucumber.js -f json i (301ms)
```

### Then

it outputs this json: **★** (000ms)

```
[ {
```

```
"id": "some-feature",
"name": "some feature",
"description": "",
"line": 1,
"keyword": "Feature",
"uri": "<current-directory>/features/a.feature",
"elements": [
 {
    "name": "I've declared one step and it is passing",
    "id": "some-feature; i've-declared-one-step-and-it-is-passing",
    "line": 3,
    "keyword": "Scenario",
    "description": "",
    "type": "scenario",
    "steps": [
      {
        "keyword": "Around ",
        "hidden": true,
        "result": {
          "duration": "<duration>",
          "status": "passed"
        },
        "match": {}
      },
        "keyword": "Before ",
        "hidden": true,
        "result": {
          "duration": "<duration>",
          "status": "passed"
        },
        "match": {}
      },
        "name": "This step is passing",
        "line": 4,
        "keyword": "Given ",
        "result": {
          "duration": "<duration>",
          "status": "passed"
        },
        "match": {}
      },
        "keyword": "After ",
        "hidden": true,
        "result": {
          "duration": "<duration>",
```

## Scenario: Failing around hook (pre scenario) fails the scenario

```
Given
a file named "features/a.feature" with: ♠ (005ms)

Feature: some feature

Scenario: I've declared one step and it is passing
Given This step is passing

And
a file named "features/step_definitions/cucumber_steps.js" with: ♠ (000ms)

var cucumberSteps = function() {
    this.Given(/^This step is passing$/, function(callback) { callback(); });
};
module.exports = cucumberSteps;

And
a file named "features/support/hooks.js" with: ♠ (001ms)
```

```
var hooks = function () {
   this.Around(function(runScenario) {
     runScenario('Fail', function(callback) { callback(); });
   });
};
module.exports = hooks;
```

### When

```
I run cucumber.js -f json d (302ms)
```

### Then

it outputs this json: **★** (000ms)

```
{
    "id": "some-feature",
    "name": "some feature",
    "description": "",
    "line": 1,
    "keyword": "Feature",
    "uri": "<current-directory>/features/a.feature",
    "elements": [
      {
        "name": "I've declared one step and it is passing",
        "id": "some-feature;i've-declared-one-step-and-it-is-passing",
        "line": 3,
        "keyword": "Scenario",
        "description": "",
        "type": "scenario",
        "steps": [
            "keyword": "Around ",
            "hidden": true,
            "result": {
              "error_message": "<error-message>",
              "duration": "<duration>",
              "status": "failed"
            },
            "match": {}
          },
            "name": "This step is passing",
            "line": 4,
            "keyword": "Given ",
```

```
"result": {
              "status": "skipped"
            },
            "match": {}
          },
            "keyword": "Around ",
            "hidden": true,
            "result": {
              "duration": "<duration>",
              "status": "passed"
            },
            "match": {}
      }
   1
 }
]
```

# Scenario: Failing around hook (pre scenario) fails the scenario

```
Given

a file named "features/a.feature" with: ★ (005ms)

Feature: some feature

Scenario: I've declared one step and it is passing
Given This step is passing

And

a file named "features/step_definitions/cucumber_steps.js" with: ★ (001ms)

var cucumberSteps = function() {
    this.Given(/^This step is passing$/, function(callback) { callback(); });
};
module.exports = cucumberSteps;

And

a file named "features/support/hooks.js" with: ★ (001ms)
```

```
var hooks = function () {
  this.Around(function(runScenario) {
    runScenario.fail();
  });
};
module.exports = hooks;
```

### When

I run cucumber.js -f json **d** (300ms)

### Then

```
{
    "id": "some-feature",
    "name": "some feature",
    "description": "",
    "line": 1,
    "keyword": "Feature",
    "uri": "<current-directory>/features/a.feature",
    "elements": [
      {
        "name": "I've declared one step and it is passing",
        "id": "some-feature; i've-declared-one-step-and-it-is-passing",
        "line": 3,
        "keyword": "Scenario",
        "description": "",
        "type": "scenario",
        "steps": [
            "keyword": "Around ",
            "hidden": true,
            "result": {
              "error_message": "<error-message>",
              "duration": "<duration>",
              "status": "failed"
            },
            "match": {}
          },
            "name": "This step is passing",
            "line": 4,
            "keyword": "Given ",
```

```
"result": {
              "status": "skipped"
            },
            "match": {}
          },
            "keyword": "Around ",
            "hidden": true,
            "result": {
              "duration": "<duration>",
              "status": "passed"
            },
            "match": {}
      }
   1
 }
]
```

# Scenario: Failing around hook (post scenario) fails the scenario

```
Given

a file named "features/a.feature" with: ♠ (005ms)

Feature: some feature

Scenario: I've declared one step and it is passing
Given This step is passing

And

a file named "features/step_definitions/cucumber_steps.js" with: ♠ (001ms)

var cucumberSteps = function() {
   this.Given(/^This step is passing$/, function(callback) { callback(); });
};
module.exports = cucumberSteps;

And

a file named "features/support/hooks.js" with: ♠ (000ms)
```

```
var hooks = function () {
   this.Around(function(runScenario) {
      // no-op

      runScenario(function(callback) {
        callback('Fail');
      });
   });
   });
   module.exports = hooks;
```

### When

I run cucumber.js -f json d (240ms)

### Then

it outputs this json: ๗ (000ms)

```
{
    "id": "some-feature",
    "name": "some feature",
    "description": "",
    "line": 1,
    "keyword": "Feature",
    "uri": "<current-directory>/features/a.feature",
    "elements": [
        "name": "I've declared one step and it is passing",
        "id": "some-feature; i've-declared-one-step-and-it-is-passing",
        "line": 3,
        "keyword": "Scenario",
        "description": "",
        "type": "scenario",
        "steps": [
          {
            "keyword": "Around ",
            "hidden": true,
            "result": {
              "duration": "<duration>",
              "status": "passed"
            },
            "match": {}
          },
          {
```

```
"name": "This step is passing",
            "line": 4,
            "keyword": "Given ",
            "result": {
              "duration": "<duration>",
              "status": "passed"
            },
            "match": {}
          },
            "keyword": "Around ",
            "hidden": true,
            "result": {
              "error_message": "<error-message>",
              "duration": "<duration>",
              "status": "failed"
            },
            "match": {}
     }
   ]
 }
]
```

## Scenario: Failing around hook (post scenario) fails the scenario

```
a file named "features/a.feature" with: ♣ (005ms)

Feature: some feature

Scenario: I've declared one step and it is passing
Given This step is passing

And

a file named "features/step_definitions/cucumber_steps.js" with: ♣ (000ms)

var cucumberSteps = function() {
    this.Given(/^This step is passing$/, function(callback) { callback(); });
};
module.exports = cucumberSteps;
```

a file named "features/support/hooks.js" with: • (000ms)

```
var hooks = function () {
   this.Around(function(runScenario) {
      // no-op

   runScenario(function(callback) {
      callback.fail();
      });
   });
});
module.exports = hooks;
```

When

```
I run cucumber.js -f json i (249ms)
```

Then

it outputs this json: **★** (003ms)

```
{
    "id": "some-feature",
    "name": "some feature",
    "description": "",
    "line": 1,
    "keyword": "Feature",
    "uri": "<current-directory>/features/a.feature",
    "elements": [
      {
        "name": "I've declared one step and it is passing",
        "id": "some-feature; i've-declared-one-step-and-it-is-passing",
        "line": 3,
        "keyword": "Scenario",
        "description": "",
        "type": "scenario",
        "steps": [
            "keyword": "Around ",
            "hidden": true,
            "result": {
              "duration": "<duration>",
              "status": "passed"
            },
```

```
"match": {}
          },
            "name": "This step is passing",
            "line": 4,
            "keyword": "Given ",
            "result": {
              "duration": "<duration>",
              "status": "passed"
            },
            "match": {}
          },
            "keyword": "Around ",
            "hidden": true,
            "result": {
              "error_message": "<error-message>",
              "duration": "<duration>",
              "status": "failed"
            },
            "match": {}
        1
      }
 }
]
```

## Scenario: Failing before hook fails the scenario

```
a file named "features/a.feature" with: ★ (005ms)

Feature: some feature

Scenario: I've declared one step and it is passing
Given This step is passing

And

a file named "features/step_definitions/cucumber_steps.js" with: ★ (000ms)
```

```
var cucumberSteps = function() {
  this.Given(/^This step is passing$/, function(callback) { callback(); });
};
module.exports = cucumberSteps;
```

### And

a file named "features/support/hooks.js" with: ๗ (001ms)

```
var hooks = function () {
  this.Before(function(callback) {
    callback('Fail');
  });
};
module.exports = hooks;
```

### When

I run cucumber.js -f json **i** (236ms)

### Then

it outputs this json: **★** (000ms)

```
{
    "id": "some-feature",
    "name": "some feature",
    "description": "",
    "line": 1,
    "keyword": "Feature",
    "uri": "<current-directory>/features/a.feature",
    "elements": [
      {
        "name": "I've declared one step and it is passing",
        "id": "some-feature; i've-declared-one-step-and-it-is-passing",
        "line": 3,
        "keyword": "Scenario",
        "description": "",
        "type": "scenario",
        "steps": [
            "keyword": "Before ",
            "hidden": true,
            "result": {
              "error_message": "<error-message>",
              "duration": "<duration>",
              "status": "failed"
            },
            "match": {}
          },
            "name": "This step is passing",
            "line": 4,
            "keyword": "Given ",
            "result": {
              "status": "skipped"
            },
            "match": {}
     }
   ]
 }
]
```

## Scenario: Failing before hook fails the scenario

a file named "features/a.feature" with: **★** (005ms)

```
Feature: some feature

Scenario: I've declared one step and it is passing

Given This step is passing
```

And

a file named "features/step\_definitions/cucumber\_steps.js" with: die (001ms)

```
var cucumberSteps = function() {
  this.Given(/^This step is passing$/, function(callback) { callback(); });
};
module.exports = cucumberSteps;
```

And

a file named "features/support/hooks.js" with: **▲** (001ms)

```
var hooks = function () {
  this.Before(function(callback) {
    callback.fail();
  });
};
module.exports = hooks;
```

When

```
Irun cucumber.js -f json d (267ms)
```

Then

it outputs this json: **★** (000ms)

```
{
    "id": "some-feature",
    "name": "some feature",
    "description": "",
    "line": 1,
    "keyword": "Feature",
    "uri": "<current-directory>/features/a.feature",
    "elements": [
      {
        "name": "I've declared one step and it is passing",
        "id": "some-feature; i've-declared-one-step-and-it-is-passing",
        "line": 3,
        "keyword": "Scenario",
        "description": "",
        "type": "scenario",
        "steps": [
            "keyword": "Before ",
            "hidden": true,
            "result": {
              "error_message": "<error-message>",
              "duration": "<duration>",
              "status": "failed"
            },
            "match": {}
          },
            "name": "This step is passing",
            "line": 4,
            "keyword": "Given ",
            "result": {
              "status": "skipped"
            },
            "match": {}
     }
   ]
 }
]
```

## Scenario: Failing after hook fails the scenario

a file named "features/a.feature" with: **♣** (005ms)

```
Feature: some feature

Scenario: I've declared one step and it is passing

Given This step is passing
```

### And

a file named "features/step\_definitions/cucumber\_steps.js" with: die (001ms)

```
var cucumberSteps = function() {
  this.Given(/^This step is passing$/, function(callback) { callback(); });
};
module.exports = cucumberSteps;
```

### And

a file named "features/support/hooks.js" with: **★** (000ms)

```
var hooks = function () {
  this.After(function(callback) {
    callback('Fail');
  });
};
module.exports = hooks;
```

### When

```
Irun cucumber.js -f json d (200ms)
```

### Then

it outputs this json: ๗ (000ms)

```
{
    "id": "some-feature",
    "name": "some feature",
    "description": "",
    "line": 1,
    "keyword": "Feature",
    "uri": "<current-directory>/features/a.feature",
    "elements": [
      {
        "name": "I've declared one step and it is passing",
        "id": "some-feature;i've-declared-one-step-and-it-is-passing",
        "line": 3,
        "keyword": "Scenario",
        "description": "",
        "type": "scenario",
        "steps": [
            "name": "This step is passing",
            "line": 4,
            "keyword": "Given ",
            "result": {
              "duration": "<duration>",
              "status": "passed"
            },
            "match": {}
          },
            "keyword": "After ",
            "hidden": true,
            "result": {
              "error_message": "<error-message>",
              "duration": "<duration>",
              "status": "failed"
            },
            "match": {}
        ]
      }
    1
 }
]
```

### Scenario: Failing after hook fails the scenario

```
Given
  a file named "features/a.feature" with: ▲ (007ms)
  Feature: some feature
  Scenario: I've declared one step and it is passing
     Given This step is passing
And
  var cucumberSteps = function() {
   this.Given(/^This step is passing$/, function(callback) { callback(); });
  };
  module.exports = cucumberSteps;
And
  a file named "features/support/hooks.js" with: • (000ms)
  var hooks = function () {
   this.After(function(callback) {
     callback.fail();
   });
  };
  module.exports = hooks;
When
  I run cucumber.js -f json d (304ms)
Then
  it outputs this json: ๗ (000ms)
```

```
{
    "id": "some-feature",
    "name": "some feature",
    "description": "",
    "line": 1,
    "keyword": "Feature",
    "uri": "<current-directory>/features/a.feature",
    "elements": [
      {
        "name": "I've declared one step and it is passing",
        "id": "some-feature;i've-declared-one-step-and-it-is-passing",
        "line": 3,
        "keyword": "Scenario",
        "description": "",
        "type": "scenario",
        "steps": [
            "name": "This step is passing",
            "line": 4,
            "keyword": "Given ",
            "result": {
              "duration": "<duration>",
              "status": "passed"
            },
            "match": {}
          },
            "keyword": "After ",
            "hidden": true,
            "result": {
              "error_message": "<error-message>",
              "duration": "<duration>",
              "status": "failed"
            },
            "match": {}
        ]
      }
    1
 }
]
```

### Scenario: Hooks still execute after a failure

```
var hooks = function () {
 this.Around(function(scenario, runScenario) {
    runScenario("fail", function(callback) {
      callback();
   });
 });
 this.Around(function(scenario, runScenario) {
    runScenario(function(callback) {
      callback();
   });
 });
 this.Before(function(scenario, callback) {
    callback();
 });
  this.After(function(scenario, callback) {
    callback();
 });
};
module.exports = hooks;
```

When

I run cucumber.js -f json i (207ms)

Then

```
[
    "id": "some-feature",
    "name": "some feature",
    "description": "",
    "line": 1,
    "keyword": "Feature",
    "uri": "<current-directory>/features/a.feature",
    "elements": [
        {
            "name": "I've declared one step and it is passing",
            "id": "some-feature;i've-declared-one-step-and-it-is-passing",
            "line": 3,
            "keyword": "Scenario",
            "description": "",
            "description": "",
```

```
"type": "scenario",
"steps": [
 {
    "keyword": "Around ",
    "hidden": true,
   "result": {
      "error_message": "<error-message>",
      "duration": "<duration>",
      "status": "failed"
   },
   "match": {}
 },
   "keyword": "Around ",
   "hidden": true,
   "result": {
     "duration": "<duration>",
      "status": "passed"
   },
   "match": {}
 },
   "keyword": "Before ",
   "hidden": true,
    "result": {
      "duration": "<duration>",
     "status": "passed"
   },
    "match": {}
 },
   "name": "This step is passing",
   "line": 4,
   "keyword": "Given ",
    "result": {
     "status": "skipped"
   },
    "match": {}
 },
   "keyword": "After ",
   "hidden": true,
    "result": {
      "duration": "<duration>",
      "status": "passed"
   },
   "match": {}
 },
```

```
"keyword": "Around ",
            "hidden": true,
            "result": {
              "duration": "<duration>",
              "status": "passed"
            },
            "match": {}
          },
            "keyword": "Around ",
            "hidden": true,
            "result": {
              "duration": "<duration>",
              "status": "passed"
            },
            "match": {}
        ]
      }
   ]
 }
]
```

### Scenario: World is this in hooks

a file named "features/support/world.js" with: ๗ (001ms)

```
var WorldConstructor = function WorldConstructor(callback) {
  var world = {
    isWorld: function() { return true; }
  };

  callback(world); // tell Cucumber we're finished and to use our world object instead of 'this'
};

module.exports.World = WorldConstructor;
```

### And

a file named "features/support/hooks.js" with:  $\stackrel{\bullet}{\blacksquare}$  (001ms)

```
var hooks = function () {
 this.World = require("../support/world.js").World;
  this.Before(function(callback) {
    var world = this;
    if (!world.isWorld())
      callback("Expected this to be world");
    else
      callback();
 });
 this.After(function(callback) {
    var world = this;
    if (!world.isWorld())
      callback("Expected this to be world");
    else
      callback();
 });
  this.Around(function(runScenario) {
    var world = this;
    var error;
    if (!world.isWorld())
      error = "Expected this to be world";
    else
      error = null;
    runScenario(error, function(callback) {
      var world = this;
      var error;
      if (!world.isWorld())
       error = "Expected this to be world";
      else
        error = null;
      callback(error);
   });
 });
};
module.exports = hooks;
```

```
I run cucumber.js -f json d (200ms)
```

Then

it outputs this json: ๗ (000ms)

```
{
    "id": "some-feature",
    "name": "some feature",
    "description": "",
    "line": 1,
    "keyword": "Feature",
    "uri": "<current-directory>/features/a.feature",
    "elements": [
      {
        "name": "I've declared one step and it is passing",
        "id": "some-feature;i've-declared-one-step-and-it-is-passing",
        "line": 3,
        "keyword": "Scenario",
        "description": "",
        "type": "scenario",
        "steps": [
            "keyword": "Around ",
            "hidden": true,
            "result": {
              "duration": "<duration>",
              "status": "passed"
            },
            "match": {}
          },
            "keyword": "Before ",
            "hidden": true,
            "result": {
              "duration": "<duration>",
              "status": "passed"
            },
            "match": {}
          },
            "name": "This step is passing",
            "line": 4,
            "keyword": "Given ",
            "result": {
```

```
"duration": "<duration>",
            "status": "passed"
          },
          "match": {}
        },
          "keyword": "After ",
          "hidden": true,
          "result": {
            "duration": "<duration>",
            "status": "passed"
          },
          "match": {}
        },
          "keyword": "Around ",
          "hidden": true,
          "result": {
            "duration": "<duration>",
            "status": "passed"
          },
          "match": {}
   }
  ]
}
```

# **JSON Formatter**

In order to simplify processing of Cucumber features and results Developers should be able to consume features as JSON

Scenario: output JSON for a feature with no scenarios

```
Given
  a file named "features/a.feature" with: 🔞 (003ms)
 Feature: some feature
When
  I run cucumber.js -f json d (282ms)
Then
  "id": "some-feature",
     "name": "some feature",
     "description": "",
     "line": 1,
     "keyword": "Feature",
     "uri": "<current-directory>/features/a.feature"
   }
 ]
```

Scenario: output JSON for a feature with one undefined scenario

```
Given
  a file named "features/a.feature" with: 🍁 (003ms)
  Feature: some feature
  Scenario: I havn't done anything yet
When
  I run cucumber.js -f json d (294ms)
Then
  it outputs this json: ๗ (000ms)
  {
      "id": "some-feature",
      "name": "some feature",
      "description": "",
      "line": 1,
      "keyword": "Feature",
      "uri": "<current-directory>/features/a.feature",
      "elements": [
          "name": "I havn't done anything yet",
          "id": "some-feature; i-havn't-done-anything-yet",
          "line": 3,
          "keyword": "Scenario",
          "description": "",
          "type": "scenario"
        }
      ]
   }
  ]
```

## Scenario: output JSON for a feature with one scenario with one undefined step

```
Given
a file named "features/a.feature" with: ♣ (001ms)
```

```
Feature: some feature

Scenario: I've declared one step but not yet defined it

Given I have not defined this step
```

#### When

```
I run cucumber.js -f json i (202ms)
```

#### Then

```
"id": "some-feature",
    "name": "some feature",
    "description": "",
    "line": 1,
    "keyword": "Feature",
    "uri": "<current-directory>/features/a.feature",
    "elements": [
      {
        "name": "I've declared one step but not yet defined it",
        "id": "some-feature; i've-declared-one-step-but-not-yet-defined-it",
        "line": 3,
        "keyword": "Scenario",
        "description": "",
        "type": "scenario",
        "steps": [
          {
            "name": "I have not defined this step",
            "line":4,
            "keyword":"Given ",
            "result":
              "status": "undefined"
            },
            "match": {}
        1
      }
    ]
 }
]
```

# Scenario: output JSON for a feature with one undefined step and subsequent defined steps which should be skipped

```
Given
   a file named "features/a.feature" with: ★ (001ms)
  Feature: some feature
  Scenario: One pending step and two following steps which will be skipped
      Given This step is undefined
      Then this step should be skipped
And
   a file named "features/step definitions/cucumber steps.js" with: • (000ms)
  var cucumberSteps = function() {
    this.Then(/^this step should be skipped$/, function(callback) { callback(); });
  };
  module.exports = cucumberSteps;
When
  I run cucumber.js -f json d (307ms)
Then
   it outputs this json: ★ (000ms)
```

```
{
    "id": "some-feature",
    "name": "some feature",
    "description": "",
    "line": 1,
    "keyword": "Feature",
    "uri": "<current-directory>/features/a.feature",
    "elements": [
      {
        "name": "One pending step and two following steps which will be skipped",
        "id": "some-feature; one-pending-step-and-two-following-steps-which-will-be-
skipped",
        "line": 3,
        "keyword": "Scenario",
        "description": "",
        "type": "scenario",
        "steps": [
          {
            "name": "This step is undefined",
            "line": 4,
            "keyword": "Given ",
            "result": {
              "status": "undefined"
            },
            "match": {
            }
          },
            "name": "this step should be skipped",
            "line": 5,
            "keyword": "Then ",
            "result": {
              "status": "skipped"
            },
            "match": {
          }
        ]
      }
   ]
 }
]
```

## Scenario: output JSON for a feature with one scenario with one pending step

```
Given
  a file named "features/a.feature" with: •• (002ms)
  Feature: some feature
  Scenario: I've declared one step which is pending
      Given This step is pending
And
  a file named "features/step_definitions/cucumber_steps.js" with: ★ (000ms)
  var cucumberSteps = function() {
    this.Given(/^This step is pending$/, function(callback) { callback.pending(); });
  };
  module.exports = cucumberSteps;
When
   I run cucumber.js -f json d (218ms)
Then
   it outputs this json: ★ (000ms)
```

```
{
    "id": "some-feature",
    "name": "some feature",
    "description": "",
    "line": 1,
    "keyword": "Feature",
    "uri": "<current-directory>/features/a.feature",
    "elements": [
      {
        "name": "I've declared one step which is pending",
        "id": "some-feature; i've-declared-one-step-which-is-pending",
        "line": 3,
        "keyword": "Scenario",
        "description": "",
        "type": "scenario",
        "steps": [
            "name": "This step is pending",
            "line": 4,
            "keyword": "Given ",
            "result": { "status": "pending" },
            "match": {
          }
      }
   ]
 }
]
```

## Scenario: output JSON for a feature with one scenario with failing step

tags: @wip

```
Given

a file named "features/a.feature" with: ♠ (003ms)

Feature: some feature

Scenario: I've declared one step but it is failing
Given This step is failing
```

a file named "features/step\_definitions/cucumber\_steps.js" with: **▲** (000ms)

```
var cucumberSteps = function() {
  this.Given(/^This step is failing$/, function(callback) { callback.fail(); });
};
module.exports = cucumberSteps;
```

When

I run cucumber.js -f json **d** (214ms)

Then

```
{
    "id": "some-feature",
    "name": "some feature",
    "description": "",
    "line": 1,
    "keyword": "Feature",
    "uri": "<current-directory>/features/a.feature",
    "elements": [
      {
        "name": "I've declared one step but it is failing",
        "id": "some-feature; i've-declared-one-step-but-it-is-failing",
        "line": 3,
        "keyword": "Scenario",
        "description": "",
        "type": "scenario",
        "steps": [
            "name": "This step is failing",
            "line": 4,
            "keyword": "Given ",
            "result": {
              "error_message": "<error-message>",
              "duration": "<duration>",
              "status": "failed"
            },
            "match": {
            }
      }
    ]
 }
1
```

# Scenario: output JSON for a feature with one scenario with passing step

```
Feature: some feature

Scenario: I've declared one step which passes
Given This step is passing
```

a file named "features/step\_definitions/cucumber\_steps.js" with: 🛍 (000ms)

```
var cucumberSteps = function() {
   this.Given(/^This step is passing$/, function(callback) { callback(); });
};
module.exports = cucumberSteps;
```

#### When

```
Irun cucumber.js -f json d (301ms)
```

## Then

```
{
    "id": "some-feature",
    "name": "some feature",
    "description": "",
    "line": 1,
    "keyword": "Feature",
    "uri": "<current-directory>/features/a.feature",
    "elements": [
      {
        "name": "I've declared one step which passes",
        "id": "some-feature; i've-declared-one-step-which-passes",
        "line": 3,
        "keyword": "Scenario",
        "description": "",
        "type": "scenario",
        "steps": [
            "name": "This step is passing",
            "line": 4,
            "keyword": "Given ",
            "result": {
              "duration": "<duration>",
              "status": "passed"
            },
            "match": {
      }
   ]
 }
]
```

Scenario: output JSON for a scenario with a passing step followed by one that is pending and one that fails

```
Given
a file named "features/a.feature" with: ♣ (004ms)
```

```
Feature: some feature

Scenario: I've declared one step which is passing, one pending and one failing.

Given This step is passing

And This step is pending

And This step fails but will be skipped
```

a file named "features/step\_definitions/cucumber\_steps.js" with: die (001ms)

```
var cucumberSteps = function() {
  this.Given(/^This step is passing$/, function(callback) { callback(); });
  this.Given(/^This step is pending$/, function(callback) { callback.pending(); });
  this.Given(/^This step fails but will be skipped$/, function(callback) {
  callback.fail(); });
};
module.exports = cucumberSteps;
```

#### When

I run cucumber.js -f json **d** (298ms)

#### Then

```
Γ
 {
    "id": "some-feature",
    "name": "some feature",
    "description": "",
    "line": 1,
    "keyword": "Feature",
    "uri": "<current-directory>/features/a.feature",
    "elements": [
        "name": "I've declared one step which is passing, one pending and one
failing.",
        "id": "some-feature; i've-declared-one-step-which-is-passing,-one-pending-
and-one-failing.",
        "line": 3,
        "keyword": "Scenario",
        "description": "",
        "type": "scenario",
        "steps": [
```

```
"name": "This step is passing",
          "line": 4,
          "keyword": "Given ",
          "result": {
            "duration": "<duration>",
           "status": "passed"
          },
          "match": {}
        },
          "name": "This step is pending",
          "line": 5,
          "keyword": "And ",
          "result": {
           "status": "pending"
          },
          "match": {}
        },
          "name": "This step fails but will be skipped",
          "line": 6,
          "keyword": "And ",
          "result": {
           "status": "skipped"
          },
          "match": {}
   }
}
```

Scenario: output JSON for a scenario with a pending step followed by one that passes and one that fails

```
Given
a file named "features/a.feature" with: ♣ (004ms)
```

```
Feature: some feature

Scenario: I've declared one step which is passing, one pending and one failing.

Given This step is pending

And This step is passing but will be skipped

And This step fails but will be skipped
```

a file named "features/step\_definitions/cucumber\_steps.js" with: 🏚 (001ms)

```
var cucumberSteps = function() {
  this.Given(/^This step is pending$/, function(callback) { callback.pending(); });
  this.Given(/^This step is passing but will be skipped$/, function(callback) {
  callback(); });
  this.Given(/^This step fails but will be skipped$/, function(callback) {
  callback.fail(); });
};
module.exports = cucumberSteps;
```

#### When

Irun cucumber.js -f json d (287ms)

#### Then

```
{
    "id": "some-feature",
    "name": "some feature",
    "description": "",
    "line": 1,
    "keyword": "Feature",
    "uri": "<current-directory>/features/a.feature",
    "elements": [
        "name": "I've declared one step which is passing, one pending and one
failing.",
        "id": "some-feature; i've-declared-one-step-which-is-passing,-one-pending-
and-one-failing.",
        "line": 3,
        "keyword": "Scenario",
        "description": "",
        "type": "scenario",
        "steps": [
```

```
"name": "This step is pending",
           "line": 4,
           "keyword": "Given ",
            "result": {
            "status": "pending"
           },
           "match": {
           }
          },
           "name": "This step is passing but will be skipped",
           "line": 5,
           "keyword": "And ",
            "result": {
            "status": "skipped"
           },
            "match": {
           }
          },
           "name": "This step fails but will be skipped",
           "line": 6,
           "keyword": "And ",
            "result": {
            "status": "skipped"
           },
            "match": {
       ]
     }
   ]
 }
]
```

# Scenario: output JSON for one feature, one passing scenario, one failing scenario

```
Given
a file named "features/a.feature" with: ♣ (004ms)
```

```
Feature: one passes one fails

Scenario: This one passes
Given This step is passing
Scenario: This one fails
Given This step is failing
```

a file named "features/step\_definitions/cucumber\_steps.js" with: • (001ms)

```
var cucumberSteps = function() {
  this.Given(/^This step is passing$/, function(callback) { callback(); });
  this.Given(/^This step is failing$/, function(callback) { callback.fail(); });
};
module.exports = cucumberSteps;
```

#### When

```
I run cucumber.js -f json d (321ms)
```

#### Then

```
"id": "one-passes-one-fails",
    "name": "one passes one fails",
    "description": "",
    "line": 1,
    "keyword": "Feature",
    "uri": "<current-directory>/features/a.feature",
    "elements": [
        "name": "This one passes",
        "id": "one-passes-one-fails; this-one-passes",
        "line": 3,
        "keyword": "Scenario",
        "description": "",
        "type": "scenario",
        "steps": [
            "name": "This step is passing",
            "line": 4,
            "keyword": "Given ",
            "result": {
```

```
"duration": "<duration>",
            "status": "passed"
          },
          "match": {
    },
      "name": "This one fails",
      "id": "one-passes-one-fails; this-one-fails",
      "line": 5,
      "keyword": "Scenario",
      "description": "",
      "type": "scenario",
      "steps": [
        {
          "name": "This step is failing",
          "line": 6,
          "keyword": "Given ",
          "result": {
            "error_message": "<error-message>",
            "duration": "<duration>",
            "status": "failed"
          },
          "match": {
  ]
}
```

# Scenario: output JSON for multiple features

```
Given

a file named "features/a.feature" with: ♠ (003ms)

Feature: feature a

Scenario: This is the first feature
Given This step is passing
```

a file named "features/b.feature" with: ๗ (001ms)

```
Feature: feature b

Scenario: This is the second feature
Given This step is passing
```

#### And

a file named "features/c.feature" with: **▲** (001ms)

```
Feature: feature c

Scenario: This is the third feature
Given This step is passing
```

#### And

a file named "features/step\_definitions/cucumber\_steps.js" with: ๗ (001ms)

```
var cucumberSteps = function() {
  this.Given(/^This step is passing$/, function(callback) { callback(); });
};
module.exports = cucumberSteps;
```

## When

I run cucumber.js -f json features/a.feature features/b.feature features/c.feature ⋅ (290ms)

#### Then

```
[
    "id": "feature-a",
    "name": "feature a",
    "description": "",
    "line": 1,
    "keyword": "Feature",
    "uri": "<current-directory>/features/a.feature",
    "elements": [
        {
            "name": "This is the first feature",
            "
```

```
"id": "feature-a; this-is-the-first-feature",
      "line": 3,
      "keyword": "Scenario",
      "description": "",
      "type": "scenario",
      "steps": [
          "name": "This step is passing",
          "line": 4,
          "keyword": "Given ",
          "result": {
            "duration": "<duration>",
            "status": "passed"
          },
          "match": {
          }
        }
      ]
    }
  1
},
  "id": "feature-b",
  "name": "feature b",
  "description": "",
  "line": 1,
  "keyword": "Feature",
  "uri": "<current-directory>/features/b.feature",
  "elements": [
    {
      "name": "This is the second feature",
      "id": "feature-b; this-is-the-second-feature",
      "line": 3,
      "keyword": "Scenario",
      "description": "",
      "type": "scenario",
      "steps": [
        {
          "name": "This step is passing",
          "line": 4,
          "keyword": "Given ",
          "result": {
            "duration": "<duration>",
            "status": "passed"
          },
          "match": {}
        }
      ]
```

```
]
 },
    "id": "feature-c",
    "name": "feature c",
    "description": "",
    "line": 1,
    "keyword": "Feature",
    "uri": "<current-directory>/features/c.feature",
    "elements": [
        "name": "This is the third feature",
        "id": "feature-c; this-is-the-third-feature",
        "line": 3,
        "keyword": "Scenario",
        "description": "",
        "type": "scenario",
        "steps": [
          {
            "name": "This step is passing",
            "line": 4,
            "keyword": "Given ",
            "result": {
              "duration": "<duration>",
              "status": "passed"
            },
            "match": {}
      }
    ]
  }
]
```

## Scenario: output JSON for multiple features each with multiple scenarios

```
Given
a file named "features/a.feature" with: ♠ (004ms)
```

```
Feature: feature a

Scenario: This is the feature a scenario one
    Given This step is passing

Scenario: This is the feature a scenario two
    Given This step is passing

Scenario: This is the feature a scenario three
    Given This step is passing
```

a file named "features/b.feature" with: • (001ms)

```
Feature: feature b

Scenario: This is the feature b scenario one
    Given This step is passing

Scenario: This is the feature b scenario two
    Given This step is passing

Scenario: This is the feature b scenario three
    Given This step is passing
```

#### And

a file named "features/c.feature" with: • (001ms)

```
Feature: feature c

Scenario: This is the feature c scenario one
    Given This step is passing

Scenario: This is the feature c scenario two
    Given This step is passing

Scenario: This is the feature c scenario three
    Given This step is passing
```

#### And

a file named "features/step\_definitions/cucumber\_steps.js" with: ๗ (000ms)

```
var cucumberSteps = function() {
  this.Given(/^This step is passing$/, function(callback) { callback(); });
};
module.exports = cucumberSteps;
```

#### When

I run cucumber.js -f json features/a.feature features/b.feature features/c.feature de (320ms)

#### Then

```
"id": "feature-a",
    "name": "feature a",
    "description": "",
    "line": 1,
    "keyword": "Feature",
    "uri": "<current-directory>/features/a.feature",
    "elements": [
      {
        "name": "This is the feature a scenario one",
        "id": "feature-a; this-is-the-feature-a-scenario-one",
        "line": 3,
        "keyword": "Scenario",
        "description": "",
        "type": "scenario",
        "steps": [
            "name": "This step is passing",
            "line": 4,
            "keyword": "Given ",
            "result": {
              "duration": "<duration>",
              "status": "passed"
            },
            "match": {
            }
          }
      },
        "name": "This is the feature a scenario two",
        "id": "feature-a; this-is-the-feature-a-scenario-two",
```

```
"line": 6,
      "keyword": "Scenario",
      "description": "",
      "type": "scenario",
      "steps": [
        {
          "name": "This step is passing",
          "line": 7,
          "keyword": "Given ",
          "result": {
            "duration": "<duration>",
            "status": "passed"
          },
          "match": {}
      ]
    },
      "name": "This is the feature a scenario three",
      "id": "feature-a; this-is-the-feature-a-scenario-three",
      "line": 9,
      "keyword": "Scenario",
      "description": "",
      "type": "scenario",
      "steps": [
        {
          "name": "This step is passing",
          "line": 10,
          "keyword": "Given ",
          "result": {
            "duration": "<duration>",
            "status": "passed"
          },
          "match": {}
      ]
    }
  ]
},
  "id": "feature-b",
  "name": "feature b",
  "description": "",
  "line": 1,
  "keyword": "Feature",
  "uri": "<current-directory>/features/b.feature",
  "elements": [
    {
```

```
"name": "This is the feature b scenario one",
  "id": "feature-b; this-is-the-feature-b-scenario-one",
  "line": 3,
  "keyword": "Scenario",
  "description": "",
  "type": "scenario",
  "steps": [
    {
      "name": "This step is passing",
      "line": 4,
      "keyword": "Given ",
      "result": {
        "duration": "<duration>",
        "status": "passed"
      },
      "match": {}
    }
  ]
},
  "name": "This is the feature b scenario two",
  "id": "feature-b; this-is-the-feature-b-scenario-two",
  "line": 6,
  "keyword": "Scenario",
  "description": "",
  "type": "scenario",
  "steps": [
    {
      "name": "This step is passing",
      "line": 7,
      "keyword": "Given ",
      "result": {
        "duration": "<duration>",
        "status": "passed"
      },
      "match": {}
    }
  ]
},
  "name": "This is the feature b scenario three",
  "id": "feature-b; this-is-the-feature-b-scenario-three",
  "line": 9,
  "keyword": "Scenario",
  "description": "",
  "type": "scenario",
  "steps": [
    {
```

```
"name": "This step is passing",
          "line": 10,
          "keyword": "Given ",
          "result": {
            "duration": "<duration>",
            "status": "passed"
          },
          "match": {}
    }
  1
},
  "id": "feature-c",
  "name": "feature c",
  "description": "",
  "line": 1,
  "keyword": "Feature",
  "uri": "<current-directory>/features/c.feature",
  "elements": [
      "name": "This is the feature c scenario one",
      "id": "feature-c; this-is-the-feature-c-scenario-one",
      "line": 3,
      "keyword": "Scenario",
      "description": "",
      "type": "scenario",
      "steps": [
        {
          "name": "This step is passing",
          "line": 4,
          "keyword": "Given ",
          "result": {
            "duration": "<duration>",
            "status": "passed"
          },
          "match": {}
      1
    },
      "name": "This is the feature c scenario two",
      "id": "feature-c;this-is-the-feature-c-scenario-two",
      "line": 6,
      "keyword": "Scenario",
      "description": "",
      "type": "scenario",
```

```
"steps": [
            "name": "This step is passing",
            "line": 7,
            "keyword": "Given ",
            "result": {
              "duration": "<duration>",
              "status": "passed"
            },
            "match": {}
        1
      },
        "name": "This is the feature c scenario three",
        "id": "feature-c;this-is-the-feature-c-scenario-three",
        "line": 9,
        "keyword": "Scenario",
        "description": "",
        "type": "scenario",
        "steps": [
            "name": "This step is passing",
            "line": 10,
            "keyword": "Given ",
            "result": {
              "duration": "<duration>",
              "status": "passed"
            },
            "match": {}
      }
   ]
 }
]
```

# Scenario: output JSON for a feature with a background

```
Given
a file named "features/a.feature" with: ♣ (005ms)
```

```
Feature: some feature

Background:

Given This applies to all scenarios
```

a file named "features/step\_definitions/cucumber\_steps.js" with: ๗ (001ms)

```
var cucumberSteps = function() {
  this.Given(/^This applies to all scenarios$/, function(callback) { callback(); });
};
module.exports = cucumberSteps;
```

#### When

```
I run cucumber.js -f json d (294ms)
```

## Then

```
{
    "id": "some-feature",
    "name": "some feature",
    "description": "",
    "line": 1,
    "keyword": "Feature",
    "uri": "<current-directory>/features/a.feature",
    "elements": [
      {
        "name": "",
        "keyword": "Background",
        "description": "",
        "type": "background",
        "line": 3,
        "steps": [
            "name": "This applies to all scenarios",
            "line": 4,
            "keyword": "Given "
      }
   ]
 }
]
```

## Scenario: output JSON for a feature with a failing background

Since the background step is re-evaluated for each scenario that is where the result of the step is currently recorded in the JSON output.

If the background is being re-evaluated for each scenario then it would be misleading to only output the result for the first time it was evaluated.

```
Given

a file named "features/a.feature" with: ♠ (003ms)

Feature: some feature

Background:

Given This applies to all scenarios but fails
```

```
var cucumberSteps = function() {
  this.Given(/^This applies to all scenarios but fails$/, function(callback) {
  callback.fail(); });
};
module.exports = cucumberSteps;
```

#### When

```
I run cucumber.js -f json d (289ms)
```

### Then

```
{
    "id": "some-feature",
    "name": "some feature",
    "description": "",
    "line": 1,
    "keyword": "Feature",
    "uri": "<current-directory>/features/a.feature",
    "elements": [
      {
        "name": "",
        "keyword": "Background",
        "description": "",
        "type": "background",
        "line": 3,
        "steps": [
            "name": "This applies to all scenarios but fails",
            "line": 4,
            "keyword": "Given "
        1
      }
   ]
 }
]
```

# Scenario: output JSON for a feature with a DocString

```
Given
  a file named "features/a.feature" with: •• (003ms)
  Feature: some feature
  Scenario: Scenario with DocString
    Given we have this DocString:
    This is a DocString
And
  a file named "features/step_definitions/cucumber_steps.js" with: ★ (000ms)
  var cucumberSteps = function() {
    this.Given(//we have this DocString:$/, function(string, callback) { callback();
  });
  };
  module.exports = cucumberSteps;
When
  I run cucumber.js -f json i (273ms)
Then
   it outputs this json: ๗ (000ms)
```

```
{
    "id": "some-feature",
    "name": "some feature",
    "description": "",
    "line": 1,
    "keyword": "Feature",
    "uri": "<current-directory>/features/a.feature",
    "elements": [
      {
        "name": "Scenario with DocString",
        "id": "some-feature; scenario-with-docstring",
        "line": 3,
        "keyword": "Scenario",
        "description": "",
        "type": "scenario",
        "steps": [
            "name": "we have this DocString:",
            "line": 4,
            "keyword": "Given ",
            "doc_string":
                "value": "This is a DocString",
                "line": 5,
                "content_type": ""
              },
            "result": {
              "duration": "<duration>",
              "status": "passed"
            },
            "match": {}
        1
      }
   ]
  }
]
```

# Scenario: output JSON for background step with a DocString

```
Given
a file named "features/a.feature" with: ♠ (003ms)
```

```
Feature: some feature

Background: Background with DocString
Given we have this DocString:
"""

This is a DocString
"""
```

a file named "features/step\_definitions/cucumber\_steps.js" with: ๗ (000ms)

```
var cucumberSteps = function() {
   this.Given(/^we have this DocString:$/, function(string, callback) { callback();
});
};
module.exports = cucumberSteps;
```

#### When

I run cucumber.js -f json d (279ms)

#### Then

```
{
   "id": "some-feature",
    "name": "some feature",
    "description": "",
    "line": 1,
    "keyword": "Feature",
    "uri": "<current-directory>/features/a.feature",
    "elements": [
      {
        "name": "Background with DocString",
        "keyword": "Background",
        "description": "",
        "type": "background",
        "line": 3,
        "steps": [
            "name": "we have this DocString:",
            "line": 4,
            "keyword": "Given ",
            "doc_string": {
              "value": "This is a DocString",
              "line": 5,
              "content_type": ""
            }
          }
      }
   ]
 }
1
```

## Scenario: output JSON for a feature with tags

```
Given

a file named "features/a.feature" with: ♠ (003ms)

@alpha @beta @gamma
Feature: some feature

Scenario: This scenario has no tags
Given This step is passing
```

a file named "features/step\_definitions/cucumber\_steps.js" with: **▲** (001ms)

```
var cucumberSteps = function() {
  this.Given(/^This step is passing$/, function(callback) { callback(); });
};
module.exports = cucumberSteps;
```

When

I run cucumber.js -f json **d** (303ms)

Then

```
{
    "id": "some-feature",
    "name": "some feature",
    "description": "",
    "line": 2,
    "keyword": "Feature",
    "tags": [
      {
        "name": "@alpha",
        "line": 1
      },
        "name": "@beta",
        "line": 1
      },
        "name": "@gamma",
        "line": 1
      }
    ],
    "uri": "<current-directory>/features/a.feature",
    "elements": [
        "name": "This scenario has no tags",
        "id": "some-feature; this-scenario-has-no-tags",
        "line": 4,
        "keyword": "Scenario",
        "description": "",
        "type": "scenario",
        "steps": [
          {
            "name": "This step is passing",
            "line": 5,
            "keyword": "Given ",
            "result": {
              "duration": "<duration>",
              "status": "passed"
            },
            "match": {}
      }
   ]
  }
]
```

# Scenario: output JSON for scenario with tags

```
Given
  a file named "features/a.feature" with: • (003ms)
  Feature: some feature
 @one @two @three
  Scenario: This scenario has tags
     Given This step is passing
And
  a file named "features/step_definitions/cucumber_steps.js" with: ★ (001ms)
  var cucumberSteps = function() {
   this.Given(/^This step is passing$/, function(callback) { callback(); });
 };
 module.exports = cucumberSteps;
When
  I run cucumber.js -f json i (305ms)
Then
```

```
{
    "id": "some-feature",
    "name": "some feature",
    "description": "",
    "line": 1,
    "keyword": "Feature",
    "uri": "<current-directory>/features/a.feature",
    "elements": [
      {
        "name": "This scenario has tags",
        "id": "some-feature; this-scenario-has-tags",
        "line": 4,
        "keyword": "Scenario",
        "description": "",
        "type": "scenario",
        "tags": [
          {
            "name": "@one",
            "line": 3
          },
            "name": "@two",
            "line": 3
          },
            "name": "@three",
            "line": 3
          }
        ],
        "steps": [
            "name": "This step is passing",
            "line": 5,
            "keyword": "Given ",
            "result": {
              "duration": "<duration>",
              "status": "passed"
            },
            "match": {}
      }
   ]
  }
]
```

# Scenario: output JSON for a step with table

Rows do not appear to support line attribute yet.

```
Given
   a file named "features/a.feature" with: • (003ms)
  Feature: some feature
  Scenario: This scenario contains a step with a table
      Given This table:
      |col 1|col 2|col 3|
      |one |two |three|
             |2
                   |3
      |1
      11
             ~
                   0
And
   a file named "features/step_definitions/cucumber_steps.js" with: d (001ms)
  var cucumberSteps = function() {
    this.Given(/^This table:$/, function(table, callback) { callback(); });
  };
  module.exports = cucumberSteps;
When
   I run cucumber.js -f json ★ (262ms)
Then
   it outputs this json: ★ (002ms)
```

```
{
    "id": "some-feature",
    "name": "some feature",
    "description": "",
    "line": 1,
    "keyword": "Feature",
    "uri": "<current-directory>/features/a.feature",
    "elements": [
      {
        "name": "This scenario contains a step with a table",
        "id": "some-feature; this-scenario-contains-a-step-with-a-table",
        "line": 3,
        "keyword": "Scenario",
        "description": "",
        "type": "scenario",
        "steps": [
            "name": "This table:",
            "line": 4,
            "keyword": "Given ",
            "rows": [
              { "cells": ["col 1", "col 2", "col 3" ] },
              { "cells": ["one", "two", "three"] },
              { "cells": ["1", "2", "3"] },
             { "cells": ["!", "~", "@"] }
            ],
            "result": {
              "duration": "<duration>",
              "status": "passed"
            },
            "match": {}
        1
      }
   ]
 }
]
```

# Scenario: output JSON for background with table

Rows do not appear to support line attribute yet.

Given

a file named "features/a.feature" with: 🏕 (003ms)

```
Feature: some feature

Background:
Given This table:
|col 1|col 2|col 3|
|one |two |three|
|1 |2 |3 |
|! |~ |@ |
```

## And

a file named "features/step\_definitions/cucumber\_steps.js" with: **▲** (000ms)

```
var cucumberSteps = function() {
  this.Given(/^This table:$/, function(table, callback) { callback(); });
};
module.exports = cucumberSteps;
```

## When

```
I run cucumber.js -f json d (202ms)
```

## Then

it outputs this json: **▲** (000ms)

```
{
    "id": "some-feature",
    "name": "some feature",
    "description": "",
    "line": 1,
    "keyword": "Feature",
    "uri": "<current-directory>/features/a.feature",
    "elements": [
      {
        "name": "",
        "keyword": "Background",
        "description": "",
        "type": "background",
        "line": 3,
        "steps": [
            "name": "This table:",
            "line": 4,
            "keyword": "Given ",
            "rows": [
             { "cells": ["col 1", "col 2", "col 3"] },
             { "cells": ["one", "two", "three"] },
             { "cells": ["1", "2", "3"] },
             { "cells": ["!", "~", "@"] }
            ]
        ]
     }
   ]
 }
]
```

Scenario: output JSON for a feature with one scenario outline with no examples tables

```
Given
  a file named "features/a.feature" with: •• (003ms)
  Feature: some feature
   Scenario Outline: I've declared one step which passes
      Given This <instance> step is passing
When
  I run cucumber.js -f json d (301ms)
Then
  it outputs this json: ★ (000ms)
  "id": "some-feature",
      "name": "some feature",
      "description": "",
      "line": 1,
      "keyword": "Feature",
      "uri": "<current-directory>/features/a.feature"
   }
  ]
```

Scenario: output JSON for a feature with one scenario outline with an examples table with no rows

```
Given
  a file named "features/a.feature" with: •• (003ms)
  Feature: some feature
   Scenario Outline: I've declared one step which passes
      Given This <instance> step is passing
   Examples:
      | instance |
When
  I run cucumber.js -f json d (303ms)
Then
  it outputs this json: ★ (000ms)
  {
      "id": "some-feature",
      "name": "some feature",
      "description": "",
      "line": 1,
      "keyword": "Feature",
      "uri": "<current-directory>/features/a.feature"
   }
  1
```

# Scenario: output JSON for a feature with one scenario outline with an examples table with two rows

```
Given
a file named "features/a.feature" with: ♣ (003ms)
```

```
Feature: some feature

Scenario Outline: I've declared one step which passes
Given This <instance> step is passing

Examples:
| instance |
| first |
| second |
```

## And

a file named "features/step\_definitions/cucumber\_steps.js" with: ┪ (000ms)

```
var cucumberSteps = function() {
   this.Given(/^This (first|second) step is passing$/, function(instance, callback) {
   callback(); });
};
module.exports = cucumberSteps;
```

### When

I run cucumber.js -f json **d** (309ms)

## Then

it outputs this json: d (000ms)

```
"id": "some-feature",
    "name": "some feature",
    "description": "",
    "line": 1,
    "keyword": "Feature",
    "uri": "<current-directory>/features/a.feature",
    "elements": [
        "name": "I've declared one step which passes",
        "id": "some-feature; i've-declared-one-step-which-passes",
        "line": 3,
        "keyword": "Scenario",
        "description": "",
        "type": "scenario",
        "steps": [
            "name": "This first step is passing",
```

```
"line": 4,
            "keyword": "Given ",
            "result": {
              "duration": "<duration>",
              "status": "passed"
            },
            "match": {}
        ]
      },
        "name": "I've declared one step which passes",
        "id": "some-feature; i've-declared-one-step-which-passes",
        "line": 3,
        "keyword": "Scenario",
        "description": "",
        "type": "scenario",
        "steps": [
            "name": "This second step is passing",
            "line": 4,
            "keyword": "Given ",
            "result": {
              "duration": "<duration>",
              "status": "passed"
            },
            "match": {}
        ]
      }
   ]
 }
]
```

Scenario: output JSON for a feature with one scenario outline with an examples table with two rows and a background

```
Given
a file named "features/a.feature" with: ♣ (003ms)
```

```
Feature: some feature
Background:
Given This applies to all scenarios

Scenario Outline: I've declared one step which passes
Given This <instance> step is passing

Examples:
| instance |
| first |
```

## And

a file named "features/step\_definitions/cucumber\_steps.js" with: ๗ (000ms)

```
var cucumberSteps = function() {
  this.Given(/^This applies to all scenarios$/, function(callback) { callback(); });
  this.Given(/^This (first|second) step is passing$/, function(instance, callback) {
  callback(); });
};
module.exports = cucumberSteps;
```

## When

I run cucumber.js -f json **d** (247ms)

### Then

```
"name": "This applies to all scenarios",
            "line": 3,
            "keyword": "Given "
        1
     },
        "name": "I've declared one step which passes",
        "id": "some-feature; i've-declared-one-step-which-passes",
        "line": 5,
        "keyword": "Scenario",
        "description": "",
        "type": "scenario",
        "steps": [
            "name": "This applies to all scenarios",
            "line": 3,
            "keyword": "Given ",
            "result": {
              "duration": "<duration>",
              "status": "passed"
            },
            "match": {}
          },
            "name": "This first step is passing",
            "line": 6,
            "keyword": "Given ",
            "result": {
              "duration": "<duration>",
              "status": "passed"
            },
            "match": {}
      }
   ]
 }
]
```

# Scenario: output JSON for a feature with one scenario outline with two examples tables

```
Given
a file named "features/a.feature" with: ๗ (002ms)
```

```
Feature: some feature

Scenario Outline: I've declared one step which passes
Given This <instance> step is passing

Examples:
| instance |
| first |

Examples:
| instance |
| second |
```

### And

a file named "features/step\_definitions/cucumber\_steps.js" with: ┪ (000ms)

```
var cucumberSteps = function() {
  this.Given(/^This (first|second) step is passing$/, function(instance, callback) {
  callback(); });
};
module.exports = cucumberSteps;
```

## When

I run cucumber.js -f json **i** (306ms)

## Then

it outputs this json: ๗ (000ms)

```
[
    "id": "some-feature",
    "name": "some feature",
    "description": "",
    "line": 1,
    "keyword": "Feature",
    "uri": "<current-directory>/features/a.feature",
    "elements": [
        {
            "name": "I've declared one step which passes",
            "id": "some-feature;i've-declared-one-step-which-passes",
            "line": 3,
            "keyword": "Scenario",
            "description": "",
            "type": "scenario",
```

```
"steps": [
            "name": "This first step is passing",
            "line": 4,
            "keyword": "Given ",
            "result": {
              "duration": "<duration>",
              "status": "passed"
            },
            "match": {}
        1
      },
        "name": "I've declared one step which passes",
        "id": "some-feature; i've-declared-one-step-which-passes",
        "line": 3,
        "keyword": "Scenario",
        "description": "",
        "type": "scenario",
        "steps": [
            "name": "This second step is passing",
            "line": 4,
            "keyword": "Given ",
            "result": {
              "duration": "<duration>",
              "status": "passed"
            },
            "match": {}
      }
   ]
  }
]
```

Scenario: output JSON for a feature with one scenario outline with an examples table with two rows and before, after and around hooks

```
Given
a file named "features/a.feature" with: ♠ (003ms)
```

```
Feature: some feature

Scenario Outline: I've declared one step which passes
Given This <instance> step is passing

Examples:
| instance |
| first |
| second |
```

## And

```
var cucumberSteps = function() {
   this.Given(/^This (first|second) step is passing$/, function(instance, callback) {
   callback(); });
};
module.exports = cucumberSteps;
```

## And

a file named "features/support/hooks.js" with: ๗ (000ms)

```
var hooks = function () {
  this.Before(function(callback) {
    callback();
  });

this.After(function(callback) {
    callback();
  });

this.Around(function(runScenario) {
    runScenario(function(callback) {
      callback();
    });
  });
};

module.exports = hooks;
```

## When

I run cucumber.js -f json **d** (268ms)

it outputs this json: ๗ (002ms)

```
{
    "id": "some-feature",
    "name": "some feature",
    "description": "",
    "line": 1,
    "keyword": "Feature",
    "uri": "<current-directory>/features/a.feature",
    "elements": [
      {
        "name": "I've declared one step which passes",
        "id": "some-feature; i've-declared-one-step-which-passes",
        "line": 3,
        "keyword": "Scenario",
        "description": "",
        "type": "scenario",
        "steps": [
            "keyword": "Around ",
            "hidden": true,
            "result": {
              "duration": "<duration>",
              "status": "passed"
            },
            "match": {}
          },
            "keyword": "Before ",
            "hidden": true,
            "result": {
              "duration": "<duration>",
              "status": "passed"
            },
            "match": {}
          },
            "name": "This first step is passing",
            "line": 4,
            "keyword": "Given ",
            "result": {
              "duration": "<duration>",
              "status": "passed"
            },
            "match": {}
```

```
},
      "keyword": "After ",
      "hidden": true,
      "result": {
        "duration": "<duration>",
        "status": "passed"
      },
      "match": {}
    },
      "keyword": "Around ",
      "hidden": true,
      "result": {
        "duration": "<duration>",
        "status": "passed"
      },
      "match": {}
},
  "name": "I've declared one step which passes",
  "id": "some-feature; i've-declared-one-step-which-passes",
  "line": 3,
  "keyword": "Scenario",
  "description": "",
  "type": "scenario",
  "steps": [
    {
      "keyword": "Around ",
      "hidden": true,
      "result": {
        "duration": "<duration>",
        "status": "passed"
      },
      "match": {}
    },
      "keyword": "Before ",
      "hidden": true,
      "result": {
        "duration": "<duration>",
        "status": "passed"
      },
      "match": {}
    },
```

```
"name": "This second step is passing",
          "line": 4,
          "keyword": "Given ",
          "result": {
            "duration": "<duration>",
            "status": "passed"
          },
          "match": {}
        },
          "keyword": "After ",
          "hidden": true,
          "result": {
            "duration": "<duration>",
            "status": "passed"
          },
          "match": {}
        },
          "keyword": "Around ",
          "hidden": true,
          "result": {
            "duration": "<duration>",
            "status": "passed"
          },
          "match": {}
    }
}
```

# **PogoScript support**

In order to use the JS dialect that totally rocks
As a step definition implementor
I want to use PogoScript for writing step definitions

Scenario: PogoScript step definition

```
Given
a mapping written in PogoScript ♥ (000ms)

When
Cucumber executes a scenario using that mapping ♥ (000ms)

Then
the feature passes ♥ (000ms)

And
the mapping is run ♥ (000ms)
```

# **Pretty Formatter**

In order to visualize the tests in an a set of Cucumber features Developers should be able to see prettified view of the scenarios that are being executed

# Scenario: Output pretty text for a feature with no scenarios

```
Given
a file named "features/a.feature" with: ♠ (002ms)

Feature: some feature

When
I run cucumber.js -f pretty ♠ (299ms)

Then
it outputs this text: ♠ (000ms)

Feature: some feature

0 scenarios
0 steps
```

# Scenario: Pretty formatter hides around, before and after hooks

```
Given
  a file named "features/a.feature" with: •• (003ms)
 Feature: some feature
 Scenario: I've declared one step which passes
     Given This step is passing
And
  var cucumberSteps = function() {
   this.Given(/^This step is passing$/, function(callback) { callback(); });
 };
 module.exports = cucumberSteps;
And
  var hooks = function () {
   this.Before(function(callback) {
     callback();
   });
   this.After(function(callback) {
     callback();
   });
   this.Around(function(runScenario) {
     runScenario(function(callback) {
      callback();
    });
   });
 };
 module.exports = hooks;
When
```

I run cucumber.js -f pretty **d** (306ms)

it outputs this text: **★** (000ms)

```
Feature: some feature

Scenario: I've declared one step which passes # features/a.feature:3
Given This step is passing # features/a.feature:4

1 scenario (1 passed)
1 step (1 passed)
```

# Scenario: Failing hook is reported as a failed step

```
Given
   a file named "features/a.feature" with: 🍁 (004ms)
  Feature: some feature
  Scenario: I've declared one step and it is passing
      Given This step is passing
And
   a file named "features/step_definitions/cucumber_steps.js" with: d (001ms)
  var cucumberSteps = function() {
    this.Given(/^This step is passing$/, function(callback) { callback(); });
  };
  module.exports = cucumberSteps;
And
   a file named "features/support/hooks.js" with: 🔞 (000ms)
```

```
var hooks = function () {
   this.Before(function(callback) {
     callback('Fail');
   });
 };
 module.exports = hooks;
When
  I run cucumber.js -f pretty d (196ms)
Then
  it outputs this text: ★ (000ms)
  Feature: some feature
   Scenario: I've declared one step and it is passing # features/a.feature:3
      Before
        Fail
      Given This step is passing
                                                          # features/a.feature:4
 (::) failed steps (::)
  Fail
  Failing scenarios:
  <current-directory>/features/a.feature:3 # Scenario: I've declared one step and it
 is passing
 1 scenario (1 failed)
```

# **Scenario Outlines and Examples**

Scenario: Basic outline

2 steps (1 failed, 1 skipped)

```
Given
the following feature: ๗ (000ms)
```

```
Feature: testing scenarios
    Background:
      Given a background step
    Scenario Outline: A <some> step is followed by <result> steps
      When a <some> step
      Then i get <result>
    Examples:
       some
                 result
       | passing | passed
       | failing | skipped |
And
   the step "a background step" has a passing mapping d (000ms)
And
   the step "a passing step" has a passing mapping d (000ms)
And
   the step "a failing step" has a failing mapping d (000ms)
And
   the step "i get passed" has a passing mapping de (000ms)
And
   the step "i get skipped" has a passing mapping de (000ms)
When
   Cucumber runs the feature do (027ms)
Then
   the scenario called "A failing step is followed by skipped steps" is reported as failing
   (000ms)
And
   the step "a background step" passes i (000ms)
And
   the step "a passing step" passes de (000ms)
And
   the step "a failing step" passes ๗ (000ms)
```

```
And
the step "i get passed" passes ♣ (000ms)

And
the step "i get skipped" is skipped ♣ (000ms)
```

## Scenario: Outline with table

```
Given
  the following feature: d (000ms)
  Feature: testing scenarios
    Scenario Outline: outline with table
      When a table step:
        | first | second
        | <first> | <second> |
    Examples:
      | first | second |
      | 1
           | 2
And
   the step "a table step:" has a passing mapping that receives a data table do (000ms)
When
   Cucumber runs the feature do (006ms)
Then
   the received data table array equals the following: ▲ (000ms)
  [["first","second"],["1","2"]]
```

Scenario: Outline with doc string

```
Given
  the following feature: d (000ms)
  Feature: testing scenarios
    Scenario Outline: outline with doc string
      When a doc string step:
        I am doc string in <example> example
        And there are <string> string
    Examples:
      | example | string |
      | first | some |
And
  the step "a doc string step:" has a passing mapping that receives a doc string doc o000ms)
When
  Cucumber runs the feature do (005ms)
Then
  the received doc string equals the following: ▲ (000ms)
  I am doc string in first example
  And there are some string
```

## Scenario: Several outlines

```
Given
the following feature: ♠ (000ms)
```

```
Feature: testing scenarios
    Scenario Outline: scenario outline 1
      When step <id>
    Examples:
      | id |
      | a |
      | b |
    Scenario Outline: scenario outline 2
      When step <id>
    Examples:
      | id |
      | C |
      | d |
And
   the step "step a" has a passing mapping 🌢 (000ms)
And
   the step "step b" has a passing mapping de (000ms)
And
  the step "step c" has a passing mapping de (000ms)
And
```

the step "step d" has a passing mapping d (000ms)

Cucumber runs the feature do (009ms)

the step "step a" passes 🕯 (000ms)

the step "step c" passes de (000ms)

the step "step d" passes **d** (000ms)

When

Then

And

And

And

# **Scenario Statuses**

# Scenario: Check scenario statuses

```
a file named "features/a.feature" with: d (004ms)

Feature: some feature

Scenario: I've declared one step and it is passing
Given This step is passing

And

a file named "features/step_definitions/cucumber_steps.js" with: d (000ms)

var cucumberSteps = function() {
   this.Given(/^This step is passing$/, function(callback) { callback(); });
   };
   module.exports = cucumberSteps;

And

a file named "features/support/hooks.js" with: d (000ms)
```

```
function checkScenarioStatuses(scenario) {
 var error;
  if (scenario.isSuccessful() !== true)
    error = "Expected isSuccessful to be true";
 else if (scenario.isFailed() !== false)
    error = "Expected isFailed to be false";
  else if (scenario.isPending() !== false)
    error = "Expected isPending to be false";
 else if (scenario.isUndefined() !== false)
    error = "Expected isUndefined to be false";
 else if (scenario.getException() !== null)
    error = "Expected exception to be null";
  else
    error = null;
  return error;
}
var hooks = function () {
 this.Around(function(scenario, runScenario) {
    var error = checkScenarioStatuses(scenario);
    runScenario(error, function(callback) {
      var error = checkScenarioStatuses(scenario);
      callback(error);
   });
 });
 this.Before(function(scenario, callback) {
    var error = checkScenarioStatuses(scenario);
    callback(error);
 });
 this.After(function(scenario, callback) {
    var error = checkScenarioStatuses(scenario);
    callback(error);
 });
};
module.exports = hooks;
```

### Then

```
{
    "id": "some-feature",
    "name": "some feature",
    "description": "",
    "line": 1,
    "keyword": "Feature",
    "uri": "<current-directory>/features/a.feature",
    "elements": [
      {
        "name": "I've declared one step and it is passing",
        "id": "some-feature; i've-declared-one-step-and-it-is-passing",
        "line": 3,
        "keyword": "Scenario",
        "description": "",
        "type": "scenario",
        "steps": [
            "keyword": "Around ",
            "hidden": true,
            "result": {
              "duration": "<duration>",
              "status": "passed"
            },
            "match": {}
          },
            "keyword": "Before ",
            "hidden": true,
            "result": {
              "duration": "<duration>",
              "status": "passed"
            },
            "match": {}
          },
            "name": "This step is passing",
            "line": 4,
            "keyword": "Given ",
            "result": {
              "duration": "<duration>",
              "status": "passed"
```

```
},
            "match": {}
          },
            "keyword": "After ",
            "hidden": true,
            "result": {
              "duration": "<duration>",
              "status": "passed"
           },
           "match": {}
          },
            "keyword": "Around ",
            "hidden": true,
            "result": {
              "duration": "<duration>",
              "status": "passed"
            },
            "match": {}
        ]
     }
   ]
]
```

## Scenario: Success status

```
Given

a file named "features/a.feature" with: ♣ (004ms)

Feature: some feature

Scenario: I've declared one step and it is passing
Given This step is passing

And

a file named "features/step_definitions/cucumber_steps.js" with: ♣ (001ms)
```

```
var cucumberSteps = function() {
  this.Given(/^This step is passing$/, function(callback) { callback(); });
};
module.exports = cucumberSteps;
```

### And

a file named "features/support/hooks.js" with: **★** (001ms)

```
var hooks = function () {
  this.After(function(scenario, callback) {
    if (scenario.isSuccessful() !== true)
      error = "Expected isSuccessful to be true";
    else if (scenario.isFailed() !== false)
      error = "Expected isFailed to be false";
    else if (scenario.isPending() !== false)
      error = "Expected isPending to be false";
    else if (scenario.isUndefined() !== false)
      error = "Expected isUndefined to be false";
    else if (scenario.getException() !== null)
      error = "Expected exception to be null";
    else
      error = null;
    callback(error);
 });
};
module.exports = hooks;
```

## When

I run cucumber.js -f json d (289ms)

## Then

it outputs this json: **★** (000ms)

```
{
    "id": "some-feature",
    "name": "some feature",
    "description": "",
    "line": 1,
    "keyword": "Feature",
    "uri": "<current-directory>/features/a.feature",
    "elements": [
      {
        "name": "I've declared one step and it is passing",
        "id": "some-feature; i've-declared-one-step-and-it-is-passing",
        "line": 3,
        "keyword": "Scenario",
        "description": "",
        "type": "scenario",
        "steps": [
            "name": "This step is passing",
            "line": 4,
            "keyword": "Given ",
            "result": {
              "duration": "<duration>",
              "status": "passed"
            },
            "match": {}
          },
            "keyword": "After ",
            "hidden": true,
            "result": {
              "duration": "<duration>",
              "status": "passed"
            },
            "match": {}
     }
   ]
 }
]
```

# Scenario: Failed status

a file named "features/a.feature" with: 🌢 (003ms)

```
Feature: some feature

Scenario: I've declared one step and it is failing

Given This step is failing
```

## And

a file named "features/step\_definitions/cucumber\_steps.js" with: **▲** (000ms)

```
var cucumberSteps = function() {
  this.Given(/^This step is failing$/, function(callback) { callback("Fail"); });
};
module.exports = cucumberSteps;
```

## And

a file named "features/support/hooks.js" with: • (000ms)

```
var hooks = function () {
 this.After(function(scenario, callback) {
    if (scenario.isSuccessful() !== false)
      error = "Expected isSuccessful to be false";
    else if (scenario.isFailed() !== true)
      error = "Expected isFailed to be true";
    else if (scenario.isPending() !== false)
      error = "Expected isPending to be false";
    else if (scenario.isUndefined() !== false)
      error = "Expected isUndefined to be false";
    else if (scenario.getException() !== "Fail")
      error = "Expected exception to be 'Fail'";
    else
      error = null;
    callback(error);
 });
};
module.exports = hooks;
```

## When

```
I run cucumber.js -f json d (189ms)
```

it outputs this json: ๗ (000ms)

```
{
    "id": "some-feature",
    "name": "some feature",
    "description": "",
    "line": 1,
    "keyword": "Feature",
    "uri": "<current-directory>/features/a.feature",
    "elements": [
      {
        "name": "I've declared one step and it is failing",
        "id": "some-feature; i've-declared-one-step-and-it-is-failing",
        "line": 3,
        "keyword": "Scenario",
        "description": "",
        "type": "scenario",
        "steps": [
            "name": "This step is failing",
            "line": 4,
            "keyword": "Given ",
            "result": {
              "error_message": "<error_message>",
              "duration": "<duration>",
              "status": "failed"
            },
            "match": {}
          },
            "keyword": "After ",
            "hidden": true,
            "result": {
              "duration": "<duration>",
              "status": "passed"
            },
            "match": {}
        ]
      }
   1
 }
]
```

## Scenario: Pending status

```
Given
  a file named "features/a.feature" with: •• (004ms)
  Feature: some feature
  Scenario: I've declared one step and it is pending
     Given This step is pending
And
  var cucumberSteps = function() {
    this.Given(/^This step is pending$/, function(callback) { callback.pending(); });
 };
 module.exports = cucumberSteps;
And
  a file named "features/support/hooks.js" with: • (001ms)
  var hooks = function () {
   this.After(function(scenario, callback) {
     if (scenario.isSuccessful() !== false)
       error = "Expected isSuccessful to be false";
     else if (scenario.isFailed() !== false)
       error = "Expected isFailed to be false";
     else if (scenario.isPending() !== true)
       error = "Expected isPending to be true";
     else if (scenario.isUndefined() !== false)
       error = "Expected isUndefined to be false";
     else if (scenario.getException() !== null)
       error = "Expected exception to be null";
     else
       error = null;
     callback(error);
   });
 };
 module.exports = hooks;
```

```
I run cucumber.js -f json d (295ms)
```

Then

it outputs this json: ๗ (001ms)

```
{
    "id": "some-feature",
    "name": "some feature",
    "description": "",
    "line": 1,
    "keyword": "Feature",
    "uri": "<current-directory>/features/a.feature",
    "elements": [
      {
        "name": "I've declared one step and it is pending",
        "id": "some-feature;i've-declared-one-step-and-it-is-pending",
        "line": 3,
        "keyword": "Scenario",
        "description": "",
        "type": "scenario",
        "steps": [
            "name": "This step is pending",
            "line": 4,
            "keyword": "Given ",
            "result": {
              "status": "pending"
            },
            "match": {}
          },
            "keyword": "After ",
            "hidden": true,
            "result": {
              "duration": "<duration>",
              "status": "passed"
            },
            "match": {}
        1
      }
   ]
 }
]
```

## Scenario: Undefined status

```
Given
  a file named "features/a.feature" with: • (005ms)
  Feature: some feature
  Scenario: I've declared one step and it is undefined
      Given This step is undefined
And
  a file named "features/step_definitions/cucumber_steps.js" with: d (001ms)
  var cucumberSteps = function() {
  };
  module.exports = cucumberSteps;
And
  a file named "features/support/hooks.js" with: 🔞 (001ms)
  var hooks = function () {
    this.After(function(scenario, callback) {
      if (scenario.isSuccessful() !== false)
        error = "Expected isSuccessful to be false";
      else if (scenario.isFailed() !== false)
        error = "Expected isFailed to be false";
      else if (scenario.isPending() !== false)
        error = "Expected isPending to be false";
      else if (scenario.isUndefined() !== true)
        error = "Expected isUndefined to be true";
      else if (scenario.getException() !== null)
        error = "Expected exception to be null";
      else
        error = null;
      callback(error);
    });
  };
  module.exports = hooks;
```

```
Irun cucumber.js -f json d (296ms)
```

Then

it outputs this json: ๗ (000ms)

```
{
    "id": "some-feature",
    "name": "some feature",
    "description": "",
    "line": 1,
    "keyword": "Feature",
    "uri": "<current-directory>/features/a.feature",
    "elements": [
      {
        "name": "I've declared one step and it is undefined",
        "id": "some-feature;i've-declared-one-step-and-it-is-undefined",
        "line": 3,
        "keyword": "Scenario",
        "description": "",
        "type": "scenario",
        "steps": [
            "name": "This step is undefined",
            "line": 4,
            "keyword": "Given ",
            "result": {
              "status": "undefined"
            },
            "match": {}
          },
            "keyword": "After ",
            "hidden": true,
            "result": {
              "duration": "<duration>",
              "status": "passed"
            },
            "match": {}
        1
      }
   ]
 }
]
```

#### Scenario: Simultaneous statuses

#### And

a file named "features/support/hooks.js" with: **★** (000ms)

```
var hooks = function () {
 this.After(function(scenario, callback) {
    if (scenario.isSuccessful() !== false)
      error = "Expected isSuccessful to be false";
    else if (scenario.isFailed() !== true)
      error = "Expected isFailed to be true";
    else if (scenario.isPending() !== true)
      error = "Expected isPending to be true";
    else if (scenario.isUndefined() !== true)
      error = "Expected isUndefined to be true";
    else
      error = null;
    callback(error);
 });
  this.After(function(scenario, callback) {
    callback("fail");
 });
};
module.exports = hooks;
```

When

I run cucumber.js -f json **d** (299ms)

Then

it outputs this json: **★** (000ms)

```
{
    "id": "some-feature",
    "name": "some feature",
    "description": "",
    "line": 1,
    "keyword": "Feature",
    "uri": "<current-directory>/features/a.feature",
    "elements": [
      {
        "name": "I've declared one step and it is undefined",
        "id": "some-feature;i've-declared-one-step-and-it-is-undefined",
        "line": 3,
        "keyword": "Scenario",
        "description": "",
        "type": "scenario",
```

```
"steps": [
            "name": "This step is pending",
            "line": 4,
            "keyword": "Given ",
            "result": {
             "status": "pending"
            },
            "match": {}
          },
            "name": "This step is undefined",
            "line": 5,
            "keyword": "And ",
            "result": {
             "status": "undefined"
            },
            "match": {}
          },
            "keyword": "After ",
            "hidden": true,
            "result": {
              "error_message": "fail",
              "duration": 351161,
              "status": "failed"
            },
            "match": {}
          },
            "keyword": "After ",
            "hidden": true,
            "result": {
              "duration": 319244,
              "status": "passed"
            },
            "match": {}
        ]
     }
    ]
 }
]
```

## Step definition callbacks

Scenario: fail with single-parameter error (Node.js style)

```
Given
a scenario with: ♠ (000ms)

When I divide 10 by 0

And
the step "I divide 10 by 0" has a mapping failing via a Node-like error construct ♠ (000ms)

When
Cucumber executes the scenario ♠ (009ms)

Then
the scenario fails ♠ (000ms)
```

### Scenario: succeed with promise

```
Given
a promise-based mapping ♥ (000ms)

When
Cucumber executes that mapping ♥ (000ms)

Then
the mapping is run ♥ (000ms)

And
the scenario passes ♥ (000ms)
```

Scenario: fail with promise

```
Given

a failing promise-based mapping ♠ (000ms)

When

Cucumber executes that mapping ♠ (000ms)

Then

the mapping is run ♠ (000ms)

And

the scenario fails ♠ (000ms)
```

#### Scenario: succeed synchronously

```
Given
a passing synchronous mapping ♥ (000ms)

When
Cucumber executes that mapping ♥ (000ms)

Then
the mapping is run ♥ (000ms)

And
the scenario passes ♥ (000ms)
```

## step definition snippets

Scenario: escape regexp special characters

```
a scenario with: ♣ (000ms)

Given I am a happy veggie \o/
When I type -[]{}()*+?.\^$|#/

When

Cucumber executes the scenario ♣ (006ms)

Then

a "Given" step definition snippet for /^I am a happy veggie \\o\/$/ is suggested ♠ (000ms)

Then

a "When" step definition snippet for /^I type \-\[\]\{\}\(\)\*\+\?\.\\\^\$\|#\/$/ is suggested ♠ [small right]#(000ms)#
```

#### Scenario: step matching groups

```
Given

a scenario with: ♣ (000ms)

Given I have 5 "kekiri" cucumbers

When

Cucumber executes the scenario ♣ (004ms)

Then

a "Given" step definition snippet for /^I have (\d+) "([^"]*)" cucumbers$/ with 2 parameters is suggested ♠ (000ms)
```

### Scenario: multiple matching groups

```
a scenario with: ♣ (000ms)

Given I have some "hekiri", "wild" and "regular" cucumbers

When

Cucumber executes the scenario ♣ (004ms)

Then

a "Given" step definition snippet for /^I have some "(<strong class="^"">)", "([^"]</strong>)" and "([^"]*)" cucumbers$/ with 3 parameters is suggested <font name="fa"> </font> <span class="small right">(000ms)</span>
```

#### Scenario: outline steps with examples

```
Given
a scenario with: ♠ (000ms)

Given I have <some> cucumbers

When
Cucumber executes the scenario ♠ (005ms)

Then
a "Given" example step definition snippet for /^I have "(.*)" cucumbers$/ with 1 parameters is suggested ♠ (000ms)
```

## step definitions with string pattern

Some people don't like Regexps as step definition patterns. Cucumber also supports string-based patterns.

### Scenario: step definition with string-based pattern

```
Given

a mapping with a string-based pattern ♣ (000ms)

When

Cucumber executes a scenario using that mapping ♣ (004ms)

Then

the feature passes ♣ (000ms)

And

the mapping is run ♣ (000ms)
```

#### Scenario: step definition with string-based pattern and parameters

```
Given
a mapping with a string-based pattern and parameters ♣ (000ms)

When
Cucumber executes a scenario that passes arguments to that mapping ♣ (003ms)

Then
the feature passes ♣ (000ms)

And
the mapping is run ♣ (000ms)

And
the mapping receives the arguments ♣ (000ms)
```

Scenario: step definition with string-based pattern and multiple parameters

```
a mapping with a string-based pattern and multiple parameters ♣ (000ms)

When

Cucumber executes a scenario that passes multiple arguments to that mapping ♣ (003ms)

Then

the feature passes ♣ (000ms)

And

the mapping is run ♣ (000ms)

And

the mapping receives the multipple arguments ♠ (000ms)
```

### Strict mode

Using the --strict flag will cause cucumber to fail unless all the step definitions have been defined.

Scenario: Succeed scenario with implemented step with --strict

```
Given
  a file named "features/a.feature" with: •• (003ms)
  Feature: Missing
   Scenario: Missing
     Given this step passes
Given
  var cucumberSteps = function() {
   this.When(/^this step passes$/, function(callback) { callback(); });
 };
 module.exports = cucumberSteps;
When
  I run cucumber.js -f progress features/a.feature --strict d (292ms)
Then
  it outputs this text: ๗ (000ms)
 1 scenario (1 passed)
 1 step (1 passed)
And
  the exit status should be 0 d (000ms)
```

Scenario: Fail scenario with undefined step with --strict

```
Given
   a file named "features/a.feature" with: •• (003ms)
  Feature: Missing
    Scenario: Missing
      Given this step passes
When
   I run cucumber.js -f progress features/a.feature --strict d (292ms)
Then
  it outputs this text: ๗ (000ms)
  IJ
  1 scenario (1 undefined)
  1 step (1 undefined)
  You can implement step definitions for undefined steps with these snippets:
  this.Given(/^this step passes$/, function (callback) {
    // Write code here that turns the phrase above into concrete actions
    callback.pending();
  });
And
   the exit status should be 1 de (000ms)
```

Scenario: Fail Scenario with pending step with --strict

```
Given
  a file named "features/a.feature" with: •• (003ms)
  Feature: Missing
   Scenario: Missing
     Given this step passes
Given
  var cucumberSteps = function() {
   this.Given(/^this step passes$/, function(callback) { callback.pending(); });
 };
 module.exports = cucumberSteps;
When
  I run cucumber.js -f progress features/a.feature --strict d (214ms)
Then
  it outputs this text: ๗ (000ms)
  Р
 1 scenario (1 pending)
 1 step (1 pending)
And
  the exit status should be 1 de (000ms)
```

Scenario: Fail scenario with undefined step with -S

```
Given
   a file named "features/a.feature" with: •• (003ms)
  Feature: Missing
    Scenario: Missing
      Given this step passes
When
   I run cucumber.js -f progress features/a.feature -S d (244ms)
Then
  it outputs this text: ๗ (000ms)
  IJ
  1 scenario (1 undefined)
  1 step (1 undefined)
  You can implement step definitions for undefined steps with these snippets:
  this.Given(/^this step passes$/, function (callback) {
    // Write code here that turns the phrase above into concrete actions
    callback.pending();
  });
And
   the exit status should be 1 de (000ms)
```

Scenario: Fail Scenario with pending step with -S

```
Given
  a file named "features/a.feature" with: 🍁 (002ms)
  Feature: Missing
   Scenario: Missing
     Given this step passes
Given
  a file named "features/step_definitions/cucumber_steps.js" with: d (001ms)
  var cucumberSteps = function() {
   this.Given(/^this step passes$/, function(callback) { callback.pending(); });
 };
 module.exports = cucumberSteps;
When
  Then
  it outputs this text: ๗ (000ms)
  Р
 1 scenario (1 pending)
  1 step (1 pending)
And
  the exit status should be 1 de (000ms)
```

### **Summary Formatter**

In order to get a quick overview of Cucumber test run Developers should be able to see a high level summary of the scenarios that were executed

Scenario: Output summary for a feature with no scenarios

```
Given
a file named "features/a.feature" with: ♣ (003ms)

Feature: some feature

When
I run cucumber.js -f summary ♣ (213ms)

Then
it outputs this text: ♣ (000ms)

0 scenarios
0 steps
```

#### Scenario: Summary formatter hides around, before and after hooks

```
Given
  a file named "features/a.feature" with: ★ (002ms)
 Feature: some feature
 Scenario: I've declared one step which passes
     Given This step is passing
And
  var cucumberSteps = function() {
   this.Given(/^This step is passing$/, function(callback) { callback(); });
 };
 module.exports = cucumberSteps;
And
  a file named "features/support/hooks.js" with: • (001ms)
```

```
var hooks = function () {
   this.Before(function(callback) {
      callback();
   });
   this.After(function(callback) {
      callback();
   });
   this.Around(function(runScenario) {
      runScenario(function(callback) {
        callback();
     });
   });
 };
 module.exports = hooks;
When
  I run cucumber.js -f summary d (291ms)
Then
  it outputs this text: ๗ (000ms)
  1 scenario (1 passed)
  1 step (1 passed)
```

### User logs into the system

```
In order to be able to use eraNET components
As a user
I want to log in to the system
```

Scenario: Unlogged user sees welcome page with login

```
Given

I have not logged or have logged out before ♥ (000ms)

When

I visit initial page ♥ (000ms)

Then

Default app should be loaded ♥ (000ms)

And

I should see login request ♥ (000ms)

And

I should not see any username ♥ (000ms)
```

### Scenario: Minimal user sees welcome page with its username and logout

```
Given

I have logged as guest named "Guest" ♠ (000ms)

When

I visit initial page ♠ (000ms)

Then

Default app should be loaded ♠ (000ms)

And

I should see logout request ♠ (000ms)

And

I should see "Guest" as username ♠ (000ms)
```

Scenario: Unlogged user logs in

```
Given

I have not logged or have logged out before ♥ (000ms)

And

I have visited initial page ♥ (000ms)

And

I have seen login request ♥ (000ms)

When

I ask to log in ♥ (000ms)

Then

I should be taken to login page ♥ (000ms)
```

### Scenario: Logged user logs out

```
Given

I have logged as guest named "Guest" ♠ (000ms)

And

I have visited initial page ♠ (000ms)

And

I have seen logout request ♠ (000ms)

When

I ask to log out ♠ (000ms)

Then

I should be taken to logout page ♠ (000ms)
```

Scenario: Disconnected user sees welcome page and reconnect option

```
Given

I have had a broken connection with api site ♥ (000ms)

When

I visit initial page ♥ (000ms)

Then

Default app should be loaded ♥ (000ms)

And

I should see reconnect request ♥ (000ms)

And

I should not see any username ♥ (000ms)
```

### Scenario: User sees 'connecting' while connecting

```
Given

I have had lagging api site ♥ (000ms)

When

I visit initial page ♥ (000ms)

Then

I should see connecting message ♥ (000ms)

And

I should not see any username ♥ (000ms)
```

# World constructor callback with object

```
It is possible for the World constructor function to tell Cucumber to use another object than itself as the World instance:

this.World = function WorldConstructor(callback) {
  var myCustomWorld = { dance: function() { /* ... */ } };
  callback(myCustomWorld); // tell Cucumber to use myCustomWorld
  // as the world object.
  };

If no parameter is passed to the callback, the WorldConstructor
  instance will be used by Cucumber:

this.World = function WorldConstructor(callback) {
  var myCustomWorld = {};
  callback(); // could have been written callback(this);
  };
```

#### Scenario: scenario calling function on explicit world instance

```
a custom World constructor calling back with an explicit object ♣ (000ms)

When

Cucumber executes a scenario that calls a function on the explicit World object ♣ (005ms)

Then

the feature passes ♣ (000ms)

And

the explicit World object function should have been called ♣ (000ms)
```