cucumber-js-documentation

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# Summary

Scenarios			Steps							Features: 22	
Passed	Failed	Total	Passed	Failed	Skippe d	Pendin g	Undefi ned	Missin g	Total	Durati on	Status
Asynchronous 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	icks			
1	0	1	4	0	0	0	0	0	4	061ms	passed
					Attacl	hments					
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	nvironme	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 Formatter											
3	0	3	13	0	0	0	0	0	13	816ms	passed
				Scenari	o Outlin	es and E	xamples				
4	0	4	31	0	0	0	0	0	31	050ms	passed
				9	Scenario	Statuse	S				

Scenarios			Steps							Features: 22	
6	0	6	30	0	0	0	0	0	30	01s 707ms	passed
				Step	definit	ion call	backs				
1	3	4	4	0	6	0	6	0	16	010ms	failed
Strict mode											
5	1	6	23	0	0	0	0	1	24	01s 366ms	failed
					Summary	Formatte	r				
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	ect			
1	0	1	4	0	0	0	0	0	4	006ms	passed
				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
					Tot	als					
92	17	109	440	0	14	0	43	1	498	19s	210ms

## **Features**

## Asynchronous failing steps

Scenario: see asynchronously failing scenarios

```
the following feature: •• (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 with the message
"Divide by 0, uh?" •• (000ms)

When
Cucumber runs the feature •• (019ms)

Then

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

## Scenario: see asynchronously failing scenarios with exception

tags: @untestable-on-self

```
the following feature: •• (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)

Then

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

# **Asynchronous pending steps**

Scenario: Pending step means the scenario is pending

```
Given
  a scenario with: d (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 d (000ms)
And
  the step "the result is 9" has a passing mapping d (000ms)
When
  Cucumber executes the scenario de (013ms)
Then
  the scenario is pending do (000ms)
And
  the step "the result is 9" is skipped ๗ (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

# Given a step definition matching /^an asynchronous step passes\$/ calling back asynchronously after 50 milliseconds d (000ms) And a step definition matching /^a step passes\$/ **i** (000ms) When I run the following feature: d (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

## **Attachments**

#### Scenario: Attach a buffer

the feature should have run successfully 🌢 (000ms)

```
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: (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 ๗ (196ms)
```

Then

#### 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 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": {}
          }
        ]
      }
   ]
 }
]
```

### Scenario: Attach a stream

```
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 ๗ (249ms)
```

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": "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": {}
          }
        ]
      }
   ]
 }
]
```

## 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
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: ๗ (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 d (286ms)
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": {},
            "embeddings": [
                "mime_type": "text/plain",
                "data": "dGV4dA=="
            ]
          },
            "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": {}
```

### Scenario: Attach from an around hook (post 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
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.Around(function(scenario, runScenario) {
        runScenario(function(callback) {
          scenario.attach("text");
          callback();
        });
      });
    };
    module.exports = hooks;
```

```
Irun cucumber.js -f json ⋅ (258ms)
```

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

#### Scenario: Attach from a before hook

```
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: ♠ (000ms)

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

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

var hooks = function () {
   this.Before(function(scenario, callback) {
      scenario.attach("text");
      callback();
   });
};

module.exports = hooks;
```

When

```
I run cucumber.js -f json ๗ (208ms)
```

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": "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
  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 (000ms)
    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
```

#### 

```
{
    "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=="
              }
            ]
          }
        ]
      }
   ]
 }
]
```

## Scenario: Attach from a step definition

```
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
  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: • (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=="
              }
            ]
          }
        ]
      }
   ]
 }
]
```

# **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 🌢 (000ms)
When
  Cucumber runs the feature do (009ms)
Then
  the feature passes 🌢 (000ms)
And
  the step "a background step" passes 🌢 (000ms)
And
  the step "a scenario step" passes 🕯 (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 🌢 (000ms)
And
  the step "a second scenario step" has a passing mapping d (000ms)
When
  Cucumber runs the feature de (014ms)
Then
  the feature passes de (000ms)
And
  the step "a background step" passes 🛍 (000ms)
And
  the step "a scenario step" passes ๗ (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 📭

```
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: ๗ (000ms)
   1 scenario (1 passed)
   1 step (1 passed)
And
  the exit status should be 0 i (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: d (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 i (189ms)
Then
  it outputs this text: d (000ms)
    U
    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: ๗ (000ms)
    var cucumberSteps = function() {
      this.When(/^a step is passing$/, function(callback) { callback(); });
    };
    module.exports = cucumberSteps;
When
        run cucumber.js -f
                                             progress features/a.feature
                                                                                    -٢
  step_definitions/cucumber_steps.js definitions/cucumber_steps.js
Then
  it outputs this text: d (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
  Irun cucumber.js -f progress features/a.feature -r step_definitions d (285ms)
Then
  it outputs this text: ๗ (000ms)
    1 scenario (1 passed)
    1 step (1 passed)
And
  the exit status should be 0 i (000ms)
```

## Scenario: display Cucumber version

## Scenario: display help

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

```
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: 1 (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 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: ★ (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: ๗ (001ms)
When
  I run cucumber.js -f progress features/a.feature i (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 🍁 (000ms)
```

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

```
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"); });
    j;
    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

#### And

```
the exit status should be 1 🏕 (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

```
a step definition matching /^a step passes$/ ♣ (000ms)

When

I run the following feature: ♣ (005ms)

Feature: Simple flat steps
In order to execute features
As cucumber
I want to run features successfully

Scenario: Simple flat step
Given a step passes
When a step passes
Then a step passes
Then a step passes
```

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

```
Given
 And
 a "When" step definition matching /^a "When" step passes$/ ♣ (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 d (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 do (000ms)

## Scenario: Steps accepting parameters

# Given a step definition matching /^I call a step with "(.\*)"\$/ recording its parameters **d** (000ms) And parameters de (000ms) And

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

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

## Scenario: Steps accepting a DocString parameter

```
Given
```

a step definition matching /^I call a step with the following text:\$/ recording its parameters de (000ms)

And

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

#### And

a step definition matching /^the (\d+)(?:st|nd) received parameter should be "(.\*)"\$/ checking a recorded parameter  $\clubsuit$  (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: **★** (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 |'kyoō,kəmbər|
        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

the feature should have run successfully 🔞 (000ms)

## **Data Tables**

Scenario: a data table can be read as a hash

# **Environment Hooks**

Scenario: Tagged around hook with untagged scenario

```
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

```
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: 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

```
Irun cucumber.js -f json ⋅ (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>",
              "status": "passed"
            },
            "match": {}
          },
            "keyword": "Around ",
            "hidden": true,
            "result": {
             "duration": "<duration>",
              "status": "passed"
            },
            "match": {}
          }
      }
   ]
 }
]
```

## 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
  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.Around(function(runScenario) {
       runScenario('Fail', function(callback) { callback(); });
     });
   };
   module.exports = hooks;
When
  Irun cucumber.js -f json d (302ms)
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": {
            "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
  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
  Irun cucumber.js -f json d (300ms)
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": {
            "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
  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 (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: ★ (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": {}
        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
  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 (249ms)
```

### it outputs this json: ๗ (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": {}
```

## Scenario: Failing before hook 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
  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 d (236ms)
```

### 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

```
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
  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: 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": "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": {}
          ]
        }
      ]
    }
  1
```

## Scenario: Failing after hook fails the scenario

```
a file named "features/a.feature" with: d (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.After(function(callback) {
     callback('Fail');
   });
  });

module.exports = hooks;
```

#### When

```
I run cucumber.js -f json ๗ (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": {}
          }
        ]
     }
   ]
 }
]
```

## 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
 Irun 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": {}
          }
        ]
     }
   ]
 }
]
```

## Scenario: Hooks still execute after a failure

```
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: ๗ (000ms)

```
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 ๗ (207ms)
```

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": {
      "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/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/world.js" with: (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;
```

#### a file named "features/support/hooks.js" with: ๗ (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 ♣ (200ms)
```

#### 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": {}
        ]
      }
   ]
 }
]
```

# **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
 Irun cucumber.js -f json i (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
  Irun 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: **d** (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 d (202ms)
```

```
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 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": {}
          ]
        }
      ]
    }
  ]
```

# 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 ๗ (307ms)
```

#### 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": {
            }
          }
        ]
     }
   ]
 }
1
```

# 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: ๗ (000ms)
    var cucumberSteps = function() {
      this.Given(/^This step is pending$/, function(callback) {
    callback.pending(); });
    module.exports = cucumberSteps;
When
  Irun cucumber.js -f json d (218ms)
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 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": {
             }
           }
         1
       }
     ]
   }
  ]
```

# 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 ๗ (214ms)
```

```
{
     "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": {
             }
           }
       }
     ]
   }
  ]
```

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

```
Given
```

```
a file named "features/a.feature" with: ♣ (012ms)

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

```
I run cucumber.js -f json ๗ (301ms)
```

```
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 step is passing",
              "line": 4,
              "keyword": "Given ",
              "result": {
                "duration": "<duration>",
                "status": "passed"
              },
              "match": {
          1
        }
      ]
    }
  ]
```

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

```
Given
84
```

```
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
```

#### And

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

var cucumberSteps = function() {
    this.Given(/^This step is passing$/, function(callback) { callback(); });
    this.Given(/^This step is pending$/, 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 ๗ (298ms)
```

#### Then

it outputs this json: **★** (000ms)

```
"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
```

#### And

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

```
I run cucumber.js -f json ♣ (287ms)
```

#### 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 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 88
```

```
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: d (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

it outputs this json: **★** (000ms)

```
[
    "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": {
          }
        1
      },
        "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: ♠ (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: (001ms)

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

#### When

```
{
   "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": {
          }
       ]
     }
   ]
 },
   "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": {}
        1
     }
   ]
 }
]
```

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

```
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
```

And

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

Given This step is passing

Scenario: This is the feature a scenario three

```
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: (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 deatures/c.feature deatures/c.f

#### Then

it outputs this json: **▲** (003ms)

```
[
    "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": {}
   }
 1
},
  "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": {}
      ]
    }
  1
},
  "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": {}
        }
      1
    },
      "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": {}
        }
      ]
    }
 ]
},
  "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": {}
```

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

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

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 ๗ (289ms)
```

```
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": "",
          "keyword": "Background",
          "description": "",
          "type": "background",
          "line": 3,
          "steps": [
              "name": "This applies to all scenarios but fails",
              "line": 4,
              "keyword": "Given "
          ]
        }
      ]
   }
  ]
```

## Scenario: output JSON for a feature with a DocString

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

Feature: some feature

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

This is a DocString
"""
```

```
a file named "features/step_definitions/cucumber_steps.js" with: d (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 (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": {}
          ]
        }
      ]
    }
  ]
```

# Scenario: output JSON for background step with a DocString

Given

#### 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 ๗ (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": ""
             }
           }
         ]
       }
     ]
   }
  ]
```

### 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
```

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 ๗ (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
    Qone Qtwo Qthree
    Scenario: This scenario has tags
        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 d (305ms)
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": "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: ம் (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 |
       |1
            |2
                 |3
       11
            ~
                 0
And
  var cucumberSteps = function() {
     this.Given(/^This table:$/, function(table, callback) { callback(); });
   };
   module.exports = cucumberSteps;
When
 I run cucumber.js -f json d (262ms)
Then
```

```
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": "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": {}
          ]
        }
      ]
    }
  ]
```

## 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

```
[
   {
     "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": ["!", "~", "@"] }
             1
           }
         ]
       }
     ]
   }
  ]
```

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
 "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
 Irun 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"
      }
    ]
```

# 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: decide (003ms)

Feature: some feature

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

Examples:
| instance |

#### And

| first | second

```
a file named "features/step_definitions/cucumber_steps.js" with: d (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: 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": {}
          }
      },
        "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": {}
        1
     }
   1
 }
]
```

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: d (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

```
[
    "id": "some-feature",
    "name": "some feature",
    "description": "",
    "line": 1,
    "keyword": "Feature",
    "uri": "<current-directory>/features/a.feature",
    "elements": [
      {
         "name": "",
         "keyword": "Background",
         "seature",
         "seature",
```

```
"description": "",
        "type": "background",
        "line": 2,
        "steps": [
            "name": "This applies to all scenarios",
            "line": 3,
            "keyword": "Given "
        ]
      },
      {
        "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: ★ (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
  var cucumberSteps = function() {
     this.Given(/^This (first|second) step is passing$/, function(instance,
   callback(); });
   };
   module.exports = cucumberSteps;
When
 Irun cucumber.js -f json d (306ms)
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 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": {}
          }
        ]
      }
   1
 }
]
```

# 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

```
Irun cucumber.js -f json ⋅ (268ms)
```

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 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 📭

```
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

```
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

```
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
```

```
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: do (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 pretty d (306ms)
```

Then

```
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

```
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;
```

```
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)
2 steps (1 failed, 1 skipped)
```

# **Scenario Outlines and Examples**

### Scenario: Basic outline

```
Given
  the following feature: d (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 i (000ms)
And
  the step "a passing step" has a passing mapping i (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 (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 (000ms)

And

the step "a passing step" passes (000ms)

And

the step "a failing step" passes (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 🏚 (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 🌢 (000ms)
And
  the step "step c" has a passing mapping i (000ms)
And
  the step "step d" has a passing mapping d (000ms)
When
  Cucumber runs the feature do (009ms)
Then
  the step "step a" passes de (000ms)
```

```
And
```

```
the step "step b" passes de (000ms)
And
  the step "step c" passes 🏚 (000ms)
And
  the step "step d" passes d (000ms)
```

## **Scenario Statuses**

### Scenario: Check scenario statuses

```
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: •• (000ms)
    var cucumberSteps = function() {
      this.Given(/^This step is passing$/, function(callback) { callback(); });
    };
    module.exports = cucumberSteps;
And
```

### 

```
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;
```

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

#### 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

```
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.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

```
Irun cucumber.js -f json • (289ms)
```

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": {
                "duration": "<duration>",
                "status": "passed"
              },
              "match": {}
          ]
        }
      ]
    }
  1
```

#### 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: d (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

```
Irun cucumber.js -f json • (189ms)
```

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 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": {}
        ]
     }
   ]
 }
]
```

## Scenario: Pending status

```
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

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;
```

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;
```

When

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

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 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": {}
           }
       }
     ]
    }
  ]
```

#### 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: (001ms)

var cucumberSteps = function() {
};
module.exports = cucumberSteps;
```

And

a file named "features/support/hooks.js" with: **i** (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;
```

When

```
I run cucumber.js -f json • (296ms)
```

```
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 undefined",
              "line": 4,
              "keyword": "Given ",
              "result": {
                "status": "undefined"
              },
              "match": {}
            },
              "keyword": "After ",
              "hidden": true,
              "result": {
                "duration": "<duration>",
                "status": "passed"
              },
              "match": {}
          ]
        }
      ]
    }
  ]
```

#### Scenario: Simultaneous statuses

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

Feature: some feature

Scenario: I've declared one step and it is undefined
Given This step is pending
And This step is undefined
```

And

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

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: **▲** (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

```
Irun cucumber.js -f json ⋅ (299ms)
```

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 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": {}
        1
     }
   ]
 }
]
```

# **Step definition callbacks**

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

```
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 📭

```
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 📭

```
a passing synchronous mapping ♠ (000ms)

When

Cucumber executes that mapping ♠ (000ms)

Then

the mapping is run ♠ (000ms)

And

the scenario passes ♠ (000ms)
```

# Strict mode

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

### Background 📭

```
a file named "features/a.feature" with: ♣

Feature: Missing
Scenario: Missing
Given this step passes
```

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: d (000ms)
    U
    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 ⋅ (214ms)
Then
 it outputs this text: d (000ms)
   P
   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
  Irun cucumber.js -f progress features/a.feature -S d (244ms)
Then
  it outputs this text: d (000ms)
    U
    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
  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 -S d (301ms)
Then
 it outputs this text: d (000ms)
   P
   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

```
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)

Ø scenarios
Ø steps
```

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

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

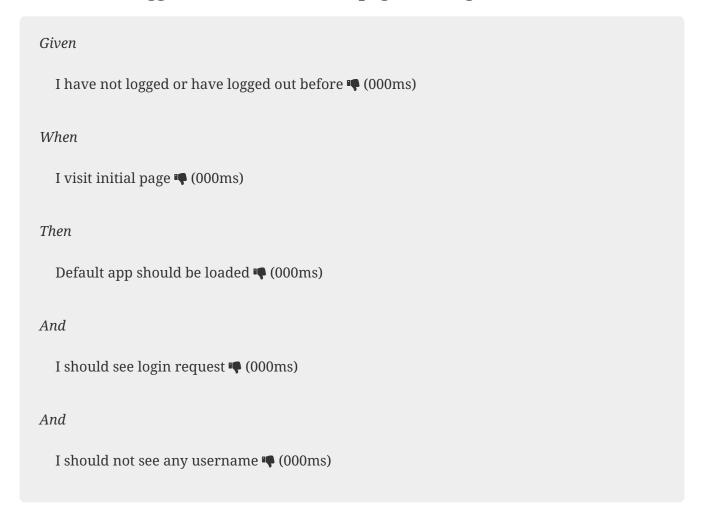
```
Irun cucumber.js -f summary d (291ms)
```

#### Then

# 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 📭



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

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

When

I visit initial page ♥ (000ms)

Then

Default app should be loaded ♥ (000ms)

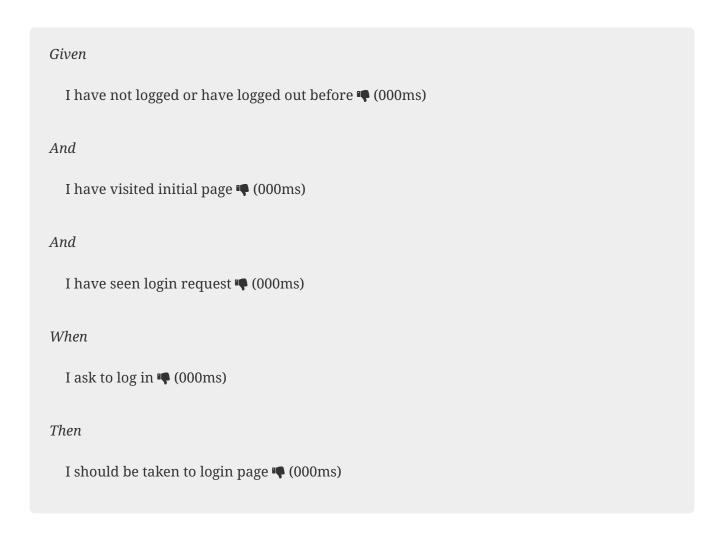
And

I should see logout request ♥ (000ms)

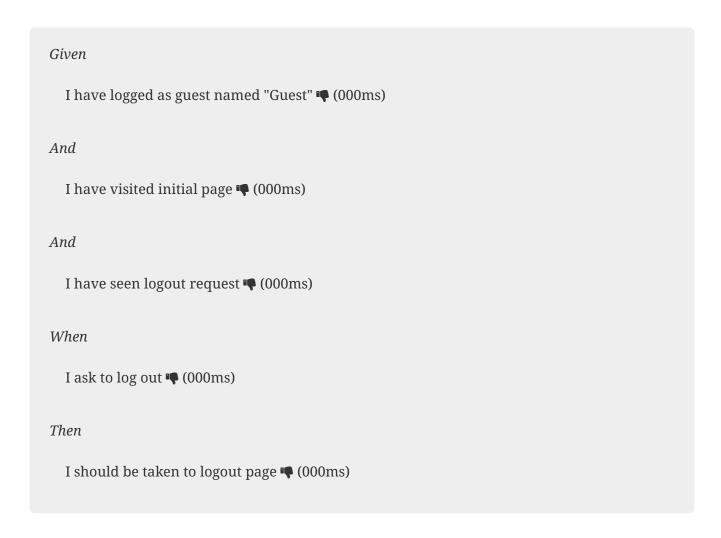
And

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

Scenario: Unlogged user logs in 📭



Scenario: Logged user logs out 📭



Scenario: Disconnected user sees welcome page and reconnect option 📭

```
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)
```

# step definition snippets

#### Scenario: escape regexp special characters 📭

```
a scenario with: double (000ms)

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

When

Cucumber executes the scenario double (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 \[
\begin{align*}
\text{Small right]#(000ms)#}

\end{align*}
```

### Scenario: step matching groups 📭

```
a scenario with: d (000ms)

Given I have 5 "kekiri" cucumbers

When

Cucumber executes the scenario d (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

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

When

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

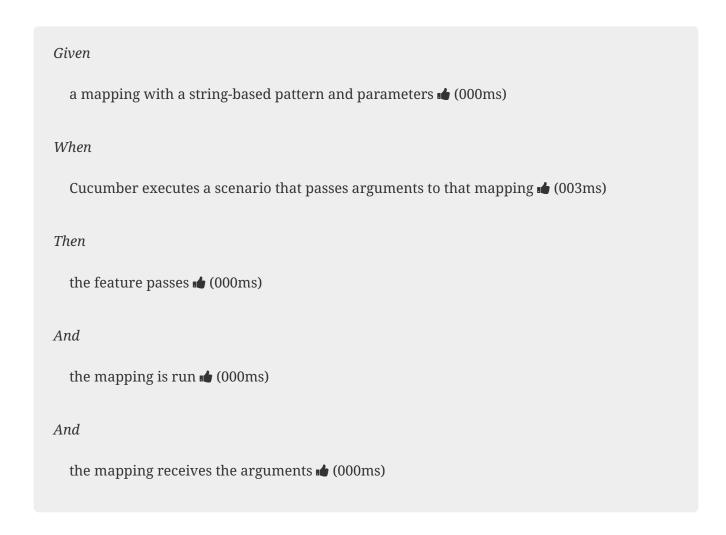
Then

the feature passes ♣ (000ms)

And

the mapping is run ♣ (000ms)
```

Scenario: step definition with string-based pattern and parameters



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

```
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)
```