

# Cucumber

Implementing Executable Requirements

# Organization

- What is Cucumber?
- Simple Example
- Running Specifications with Cucumber
- Beyond the Basics

# Cucumber

- Cucumber is a tool for executing specifications and collecting results
  - Cucumber is implemented in Ruby
  - Specification steps are implemented in Ruby and executed in a Ruby VM
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- Specs are defined in Gherkin, implemented in Ruby and executed with Cucumber

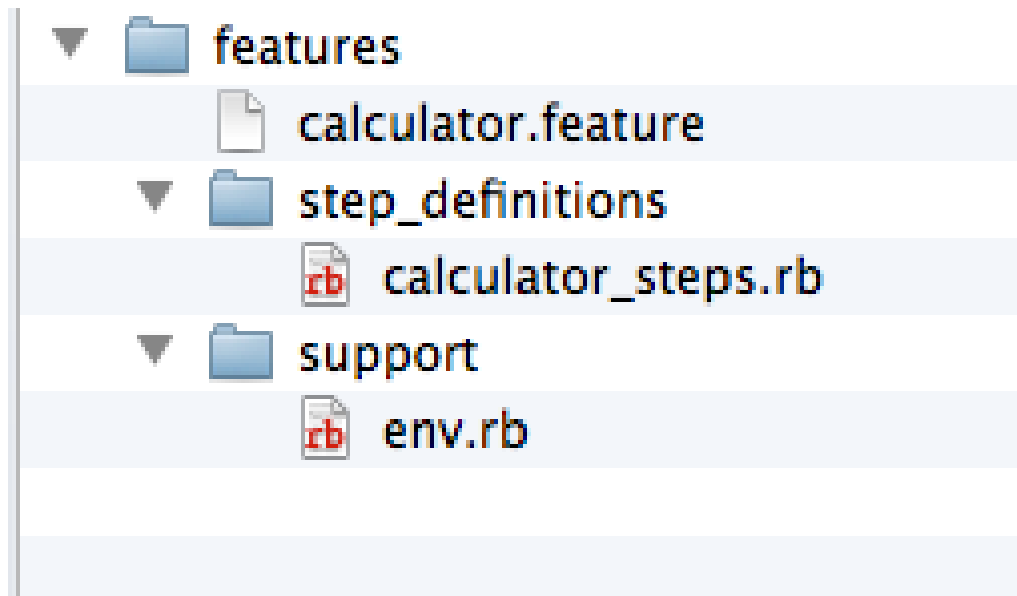
# Cucumber Variations

Cucumber is specific to the Ruby Platform, but other variations exist:

- cucumber-jvm - any JVM language
- specflow - .NET
- Many others

# Organizing Specs with Cucumber

- Scenarios organized in feature files
- Step definitions organized in step files
- Typical folder structure for Cucumber:



# Organizing Specs with Cucumber

- Cucumber feature folder organization based on convention over configuration
- No limit to the number of feature files
- Feature files can exist virtually anywhere
- No limit to the number of step definition files
- OK to create subfolders

# Organizing Specs with Cucumber

Keeping tests organized is an ongoing effort

- Split large features
- Renaming features
- Refactor step definition modules
- Splitting and combining scenarios

# Implementing a Simple Spec

**Feature:** Calculator

**Scenario:** Add 2 numbers

**Given** I enter 2 and 3

**When** I add the numbers

**Then** the result should be 5

```
Given /^I enter (\d) and (\d)$/ do |a, b|  
  @calc = Calculator.new  
  @calc.num1 = a  
  @calc.num2 = b  
end
```

```
When /^I add the numbers$/ do  
  @result = @calc.perform_add  
end
```

```
Then /^the result should be (\d)$/ do |expected|  
  @result.should == expected  
end
```



# Executing Specs

- Cucumber comes with an executable
  - runs all features by default
- Can specify specific
  - feature file
  - scenario
  - line number
- Can use multiple formatters for test output

# What Can You Test with Cucumber

Virtually anything!

- Web applications
- Web services
- Desktop application
- Command line applications
- Applications on remote servers
- Mobile applications

# Other Topics

- Hooks
- Tags
- Continuous Integration
- Formatting Output