# Ruby on Rails

**Advanced Testing** 

### **Test Doubles**

#### **Dummies**

Just a placeholder, not really used

Most frameworks don't have built-in capability

Object.new can usually be used

### **Test Doubles**

### **Stubs**

Provide canned responses

Often hard coded

### Test Doubles

#### **Mocks**

Smart stubs

Used to verify that some action occurred, such as a specific method being called with specific parameters

# Stub Example

Create a project called Wardrobe

Add a Helper called WardrobeHelper

Create a service called WeatherService (create it in app/services)

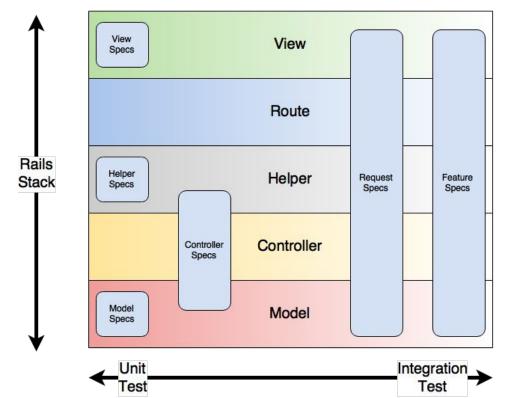
Add a method to WeatherService called current\_temp

# Stub Example

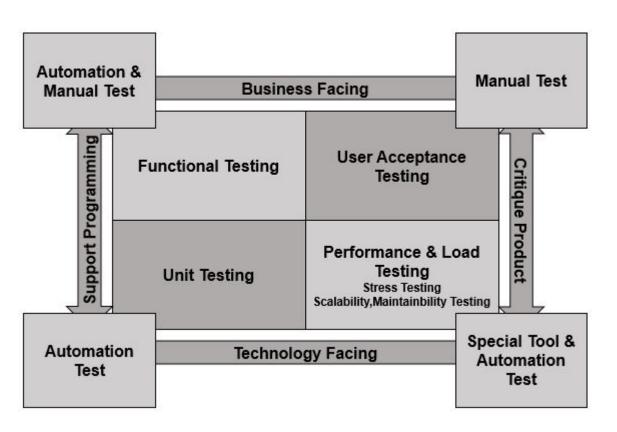
```
class WardrobeHelperTest < ActiveSupport::TestCase
  test 'chooses heavycoat when it's cold' do
   mock = Minitest::Mock.new
   def mock.current_temp; 0; end

   WeatherService.stub :new, mock do
    wh = WardrobeHelper.new
    assert_equal 'heavy', wh.coat_for_today
   end
end
end</pre>
```

# Testing "Pyramid"



### **Test Quadrants**



# Test Types

#### System

- uses a headless browser
- Tests user interactions
- Can take screenshots

#### Integration

Tests internal interactions

#### **Functional**

Tests for a specific controller/action

### Assertions

Built-in assertions from Minitest

Includes some Rails specific assertions

- Routes and parameters
- Response codes
- Redirects