Test Coverage

Metrics for Testing

Test Coverage is a metric that describes **how much** of a system was tested by its tests (for example, unit and end to end tests). There are various ways to measures this.

Code Coverage is a type of **Test Coverage metric** that measure how much of our code was **executed** by the tests.
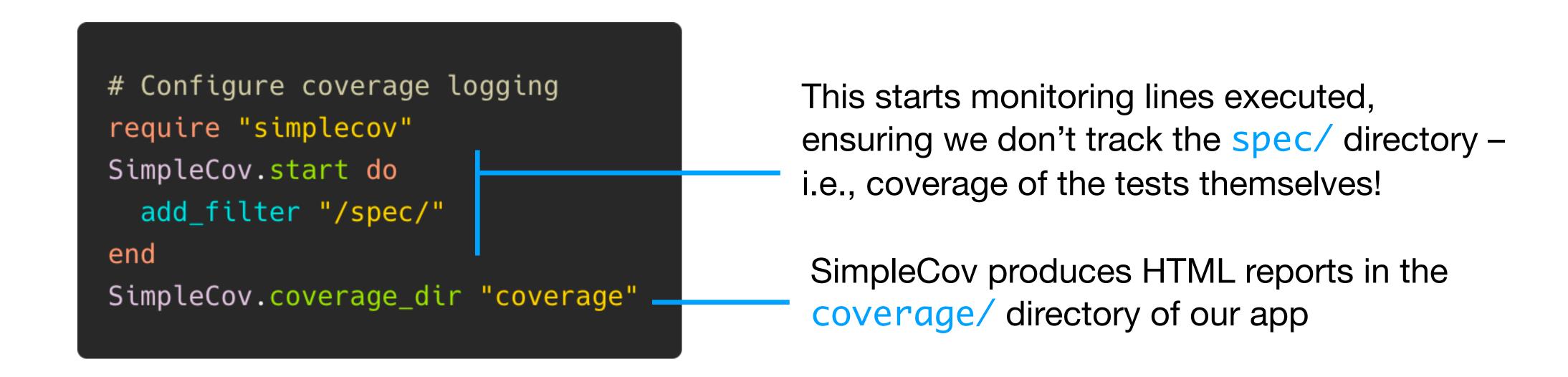
Line Coverage is a specific **Code Coverage metric** that measures how many code lines were executed.

Code Coverage tells us which parts of a system were **missed by our tests**, and what tests we may still need to write.

SimpleCov

SimpleCov is a gem that can track the lines of code executed by our RSpec tests.

We can set it up to work with our tests in `spec_helper.rb` as follows:

```ruby
# Configure coverage logging
require "simplecov"
SimpleCov.start do
  add_filter "/spec/"
end
SimpleCov.coverage_dir "coverage"
```

This starts monitoring lines executed, ensuring we don't track the `spec/` directory – i.e., coverage of the tests themselves!

SimpleCov produces HTML reports in the `coverage/` directory of our app

Live Demonstration:

Using Coverage Monitoring