Objectives:

- Update the apache cookbook to listen on both ports 80 and 8080
- Create custom resources to be used in later labs

Include attributes created for the template resource in the apache attributes file:

1. **Update ~/chef-repo/cookbooks/apache/attributes/default.rb to:**

```
case node['platform']
when 'ubuntu'
  default['apache']['package_name'] = 'apache2'
  default['apache']['service_name'] = 'apache2'
  default['apache']['service_resource'] = 'service[apache2]'
  default['apache']['conf_dir'] = '/etc/apache2/sites-enabled'
else
  default['apache']['package_name'] = 'httpd'
  default['apache']['service_name'] = 'httpd'
  default['apache']['service_resource'] = 'service[httpd]'
  default['apache']['conf_dir'] = '/etc/httpd/conf.d'
end

default['apache']['default_index_html'] = '/var/www/html/index.html'
```

Create a conf.erb template file from apache directory.

2. **Execute:** `$chef generate template conf`

3. Update templates/conf.erb as follows:

```
<% if @port !=80 -%>
  Listen <%= @port %>
<% end -%>

<VirtualHost *:<%= @port %>>
  ServerAdmin webmaster@localhost

  DocumentRoot <%= @document_root %>
    <Directory />
      Options FollowSymLinks
      AllowOverride None
    </Directory>
    <Directory <%= @document_root %>>
      Options Indexes FollowSymLinks
      AllowOverride None
      Require all granted
  </Directory>
</VirtualHost>
```

Add a new integration test that expects content when listening to port 8080.

4. **Update test/integration/default/default_test.rb to the following:**

```
describe command('curl http://localhost:8080') do
  its(:stdout) { should match(/Welcome admins/) }
end
```

5. Run ChefSpec to validate the changes:

```
$chef exec rspec
/home/ubuntu/chef-repo/cookbooks/apache $chef exec rspec
.........

Finished in 2.38 seconds (files took 1.13 seconds to load)
9 examples, 0 failures
```

6. If ChefSpec has no failures, execute the cookbook using the test kitchen.

```
$kitchen test
```

```
Port 80
    ✔  is expected to be listening
Command: `curl http://localhost`
    ✔  stdout is expected to match /Welcome Home/
File /var/www/html/index.html
    ✔  is expected to exist
Command: `curl http://localhost:8080`
    ✔  stdout is expected to match /Welcome admins/

Test Summary: 4 successful, 0 failures, 0 skipped
        Finished verifying <default-ubuntu-2004> (0m1.50s).
```

Note : The test summary for both ubuntu and centos platforms are displaying 4 successful tests with 0 failures and 0 skipped

Notify your instructor that you are done with the lab

END OF LAB