CHEF cookbook [tunes] example.

This is an output exaple applying the [defaults] limits to the /etc/security/limits.conf file

```
PuTTY (inactive)
         -#
        +# This file is controlled by CHEF. >>>Do not modify<<<
         #<domain>        <type>  <item>          <value>
         #
        -
        -#*               soft    core            0
        -#*               hard    rss             10000
        -#@student        hard    nproc           20
        -#@faculty        soft    nproc           20
        -#@faculty        hard    nproc           50
        -#ftp             hard    nproc           0
        -#@student        -       maxlogins       4
        -
        -# End of file
        +*                soft    memlock         8388608
        +*                hard    memlock         8388608
        +*                soft    nofile          16384
        +*                hard    nofile          16384
        +*                soft    nproc           16384
        +*                hard    nproc           16384
        +

      Running handlers:
      Running handlers complete
      Chef Client finished, 1/1 resources updated in 03 seconds
      Finished converging <default-centos-7> (2m6.67s).
-----> Setting up <default-centos-7>...
$$$$$$ Running legacy setup for 'Docker' Driver
-----> Installing Busser (busser)
Fetching: thor-0.19.0.gem (100%)
```

CHEF cookbook [tunes] example.

This is an output exaple applying the [oracle] limits to the /etc/security/limits.conf file

```
 PuTTY (inactive)
         -#
        +# This file is controlled by CHEF. >>>Do not modify<<<
         #<domain>        <type>  <item>          <value>
         #
         -
         -#*              soft    core            0
         -#*              hard    rss             10000
         -#@student       hard    nproc           20
         -#@faculty       soft    nproc           20
         -#@faculty       hard    nproc           50
         -#ftp            hard    nproc           0
         -#@student       -       maxlogins       4
         -
         -# End of file
        +oracle           soft    nproc           16384
        +oracle           hard    nproc           16384
        +oracle           soft    nofile          65536
        +oracle           hard    nofile          65536
        +

        Running handlers:
        Running handlers complete
        Chef Client finished, 1/1 resources updated in 01 seconds
        Finished converging <default-centos-7> (0m49.56s).
-----> Setting up <default-centos-7>...
$$$$$$ Running legacy setup for 'Docker' Driver
-----> Installing Busser (busser)
Fetching: thor-0.19.0.gem (100%)
        Successfully installed thor-0.19.0
Fetching: busser-0.7.1.gem (100%)
```

CHEF cookbook [tunes] example.

This is the main directory for the cookbooks

```
[root@sandman tunes]# pwd
/opt/company-chef-repo/cookbooks/tunes
```

This is the main template for tje /etc/security/limits.conf file

```
[root@sandman tunes]# cat templates/default/limits.conf.erb
# /etc/security/limits.conf
#
#Each line describes a limit for a user in the form:
#
#<domain>        <type>  <item>  <value>
#
#Where:
#<domain> can be:
#        - an user name
#        - a group name, with @group syntax
#        - the wildcard *, for default entry
#        - the wildcard %, can be also used with %group syntax,
#                 for maxlogin limit
#
#<type> can have the two values:
#        - "soft" for enforcing the soft limits
#        - "hard" for enforcing hard limits
#
#<item> can be one of the following:
#        - core - limits the core file size (KB)
#        - data - max data size (KB)
#        - fsize - maximum filesize (KB)
#        - memlock - max locked-in-memory address space (KB)
#        - nofile - max number of open files
#        - rss - max resident set size (KB)
#        - stack - max stack size (KB)
#        - cpu - max CPU time (MIN)
#        - nproc - max number of processes
#        - as - address space limit
#        - maxlogins - max number of logins for this user
#        - maxsyslogins - max number of logins on the system
#        - priority - the priority to run user process with
#        - locks - max number of file locks the user can hold
#        - sigpending - max number of pending signals
#        - msgqueue - max memory used by POSIX message queues (bytes)
#        - nice - max nice priority allowed to raise to
#        - rtprio - max realtime priority
# This file is controlled by CHEF. >>>Do not modify<<<
#<domain>       <type>  <item>          <value>
#
<% @ulimits = [] -%>
<% @ulimits = [@ulimit_domain, @ulimit_type, @ulimit_item, @ulimit_value] -%>
<% if (( @ulimit_domain.size == @ulimit_type.size ) && ( @ulimit_type.size == @ulimit_item.size )
&& ( @ulimit_item.size == @ulimit_value.size )) -%>
  <% for e in 0..@ulimit_item.size do -%>
<%= "%-15s" % "#{@ulimits[0][e]}" + "%-8s" % "#{@ulimits[1][e]}" + "%-15s" % "#{@ulimits[2][e]}"
+ "%-9s" % "#{@ulimits[3][e]}" %>
  <% end -%>
<%else -%>
  <%= "Ulimits attributes mismatch" + "%2s" % "#{@ulimit_domain.size}" + "%2s" %
"#{@ulimit_type.size}" + "%2s" % "#{@ulimit_item.size}" + "%2s" % "#{@ulimit_value.size}" %>
<% end -%>
```

CHEF cookbook [tunes] example.

This is the [default] limits attributes using the default [tunes::default] recipe

```
[root@sandman tunes]# cat attributes/default.rb
#
## Cookbook Name:: ../tunes/
## Attributes:: default
#
#Author::
#Copyright 2016, Company
#
default[:limits_conf][:d]  = '*','*','*','*','*','*'
default[:limits_conf][:t]  = 'soft','hard','soft','hard','soft','hard'
default[:limits_conf][:i]  = 'memlock','memlock','nofile','nofile','nproc','nproc'
default[:limits_conf][:v]  = '8388608','8388608','16384','16384','16384','16384'
```

This is the [default] recipe for the [tunes] cookbook (TODO: restart the SSHD service)

```
[root@sandman tunes]# cat recipes/default.rb
#
# Cookbook Name:: ../tunes/
# Recipe:: default
#
# Copyright 2016, YOUR_COMPANY_NAME
#
template "/etc/security/limits.conf" do
  source "default/limits.conf.erb"
  owner    'root'
  group    'root'
  mode     '0644'
  action   :create
  variables({ :ulimit_domain => node[:limits_conf][:d],
              :ulimit_type   => node[:limits_conf][:t],
              :ulimit_item   => node[:limits_conf][:i],
              :ulimit_value  => node[:limits_conf][:v]  })
end
```

This is the [oracle] recipe (wrapper) with the limits attributes using the default [tunes::default] recipe

```
[root@sandman tunes]# cat recipes/oracle.rb
#
# Cookbook Name:: ../tunes/ (Wrapper)
# Recipe:: oracle
#
# Copyright 2016, YOUR_COMPANY_NAME
#
node.default[:limits_conf][:d]  = 'oracle','oracle','oracle','oracle'
node.default[:limits_conf][:t]  = 'soft','hard','soft','hard'
node.default[:limits_conf][:i]  = 'nproc','nproc','nofile','nofile'
node.default[:limits_conf][:v]  = '16384','16384','65536','65536'

include_recipe 'tunes::default'
```

CHEF cookbook [tunes] example.

This is the [.kitchen.yml] file to test the recipes using "kitchen test" with docker

```
[root@sandman test]# egrep -v  '#|^$' .kitchen.yml
---
driver:
  name: docker
provisioner:
  name: chef_solo
  cookbooks_path: /opt/ company-chef-repo/cookbooks
  platforms:
  - name: centos-7
suites:
  - name: default
    run_list:

      #- recipe[tunes::default]
      #- recipe[tunes::oracle]

    attributes:
```