Solution M4: Chef

Resources used for this solution include:

- Chef Documentation - https://docs.chef.io/resources/
- Vagrant Documentation - https://www.vagrantup.com/docs/provisioning/chef_solo

As usual, this is not neither the only, nor the most remarkable way of solving the challenge. Instead, it is just one way that gets the things done. Yours may be different, and still correct

Solution Task #1

This solution uses one machine based on the **shekeriev/centos-stream-9** box

The following files are part of the solution:

```
task-1
├── cookbooks
│   ├── docker                    -> supporting cookbook
│   │   ├── ...
│   │   └── ...
│   └── hwdocker                  -> Homework cookbook
│       ├── metadata.rb           -> Cookbook metadata
│       └── recipes
│           ├── install_docker.rb -> Docker installation recipe
│           └── run_nginx.rb      -> Container run recipe
└── Vagrantfile                   -> Vagrantfile to create the whole environment
```

More about the supporting cookbook can be found here https://github.com/sous-chefs/docker

The solution offers complete automatization. It may be brought up with

vagrant up

Then, we can visit the http://192.168.99.100:8080 address to see the result

Solution Task #2

This solution uses two machines. The first one is based on the **shekeriev/centos-stream-9** box and the second one on the **shekeriev/debian-11** box

The following files are part of the solution:

```
task-2
├── cookbooks
│   ├── firewalld                 -> supporting cookbook
│   │   ├── ...
│   │   └── ...
│   ├── hwdb                      -> DB cookbook
│   │   ├── files
│   │   │   └── db_setup.sql      -> DB initialization script
│   │   ├── metadata.rb
│   │   └── recipes
```

```
│   │       └── default.rb            -> The default recipe for DB related tasks
│   ├── hwweb                        -> WEB cookbook
│   │   ├── files
│   │   │   ├── bulgaria-map.png     -> application files
│   │   │   └── index.php            -> application files
│   │   ├── metadata.rb              -> cookbook metadata
│   │   └── recipes
│   │       └── default.rb           -> The default recipe for WEB related tasks
│   └── selinux                      -> supporting cookbook
│       ├── ...
│       └── ...
└── Vagrantfile                      -> Vagrantfile to create the whole environment
```

More about the supporting cookbooks can be found here https://github.com/sjsadowski/firewalld-cookbook and here https://github.com/sous-chefs/selinux

The solution offers complete automatization. It may be brought up with

`vagrant up`

Then, we can visit the http://192.168.99.101 address to see the result