Work Station

   A workstation is a computer that is configured to run various Chef command-line tools that synchronize with a chef-repo, author cookbooks, interact with the Chef server, and interact with nodes (A typical devops engineer uses this machine for all the configuration management activities)

Activities performed By the user at the Workstation typically are:

- Developing cookbooks and recipes (and authoring them using Ruby syntax and patterns)
- Keeping the chef-repo synchronized with version source control
- Using command-line tools
- Configuring organizational policy, including defining roles and environments and ensuring that critical data is stored in data bags
- Interacting with nodes, as (or when) required, such as performing a bootstrap operation

Components of Workstation

Knife: knife is a command-line tool that provides an interface between a local chef-repo and the Chef server. knife helps users to manage

- Nodes
- Cookbooks and recipes
- Roles
- Stores of JSON data (data bags), including encrypted data
- Environments
- Cloud resources, including provisioning
- The installation of the chef-client on management workstations
- Searching of indexed data on the Chef server

Chef-Repo: The chef-repo is the repository structure in which cookbooks are authored, tested, and maintained

- Cookbooks contain recipes, attributes, custom resources, libraries, definitions, files, templates, tests, and metadata
- The chef-repo should be synchronized with a version control system (such as git), and then managed as if it were source code

Chef-repo is the location in which the following data objects are stored

1. Cookbooks
2. Roles
3. Data bags
4. Environment
5. Configuration files

Best-Practice: Store the chef-repo in the Version Control System such as git or svn etc..

Directory Structure of chef-repo:

Directory	Description
.chef/	A hidden directory that is used to store validation key files and the knife.rb file.
cookbooks/	Contains cookbooks that have been downloaded from the https://supermarket.chef.io or created locally.
data_bags/	Stores data bags (and data bag items) in JSON (.json).
environments/	Stores environment in Ruby (.rb) or JSON (.json).
roles/	Stores roles in Ruby (.rb) or JSON (.json).

Chef-Components