

Data Bags

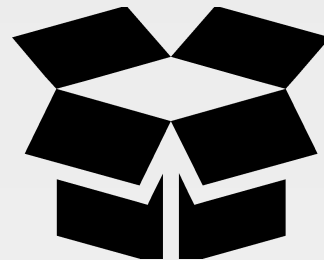
Working with Custom Data Sets

Objectives

After completing this module, you should be able to

- Understand how to use and manage a Data Bag
- Create a Data Bag
- Upload Data Bag to Chef Server

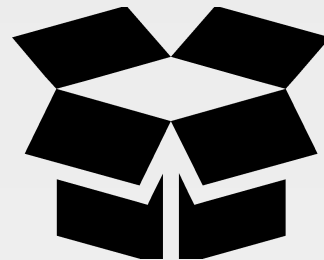
CONCEPT



What about user data?

Where should we store data that each node might need access to?

CONCEPT

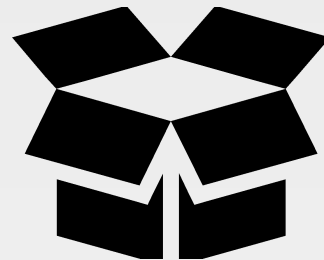


What about user data?

We could start by storing information about users as Node Attributes...

But this would duplicate a lot of information - every user in the company would be stored in every Node object!

CONCEPT

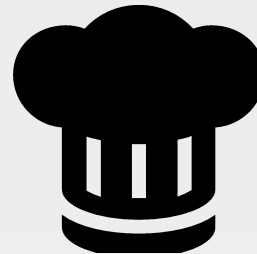


Data Bags

A data bag is a container for items that represent information about your infrastructure that is not tied to a single node.

Examples:

- Users
- Groups
- Application Release Information
- Passwords (in an encrypted data bag)



Custom Data Sets

We can store sets of JSON data on our Chef Server, accessible by a node with search

Objective:

- ☐ Create “users” and “groups” data bags
- ☐ Upload data bags to Chef Server
- ☐ Create a cookbook to manage users and groups

What Can 'knife data bag' Do?



```
$ cd ~/chef-repo
```

```
$ knife data bag --help
```

```
** DATA BAG COMMANDS **
```

```
knife data bag create BAG [ITEM] (options)
```

```
knife data bag delete BAG [ITEM] (options)
```

```
knife data bag edit BAG ITEM (options)
```

```
knife data bag from file BAG FILE|FOLDER [FILE|FOLDER..] (options)
```

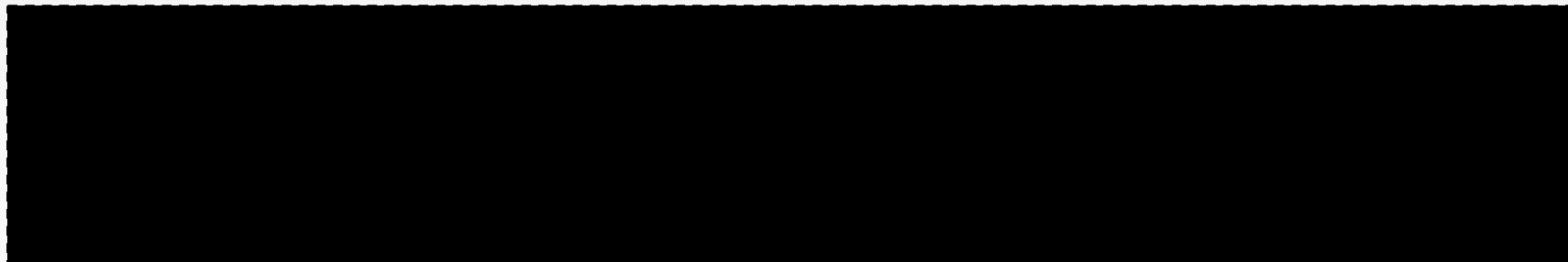
```
knife data bag list (options)
```

```
knife data bag show BAG [ITEM] (options)
```

Run 'knife data bag list'



```
$ knife data bag list
```



Create a data_bags Directory



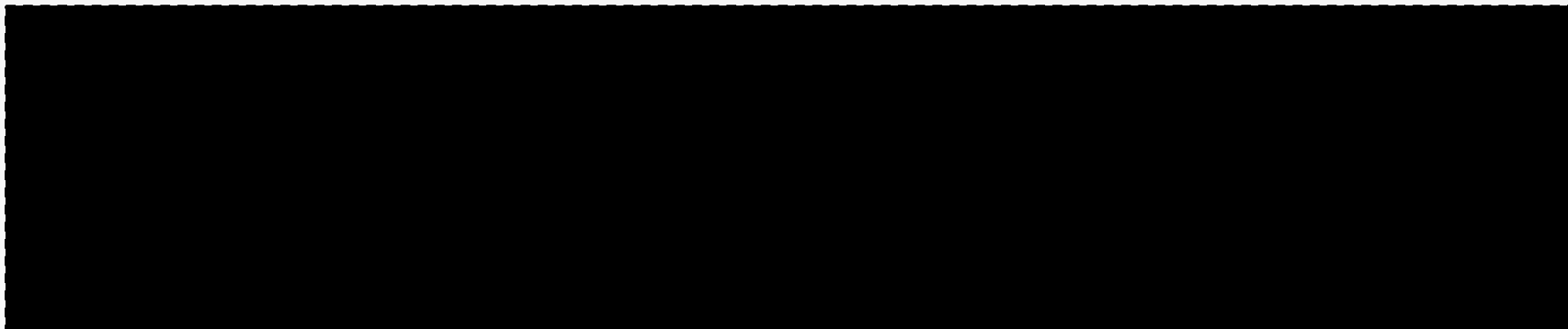
```
$ mkdir data_bags
```



Create a data_bags/users Directory



```
$ mkdir data_bags/users
```



Create users Data Bag on Chef Server



```
$ knife data bag create users
```

```
Created data_bag[users]
```

Create user1.json

`~/chef-repo/data_bags/users/user1.json`

```
{  
  "id": "user1",  
  "comment": "I am user1",  
  "uid": 100,  
  "gid": 1,  
  "home": "/home/user1",  
  "shell": "/bin/bash",  
  "platform": "centos"  
}
```

Create user2.json

`~/chef-repo/data_bags/users/user2.json`

```
{  
  "id": "user2",  
  "comment": "I am user2",  
  "uid": 101,  
  "gid": 1,  
  "home": "/home/user2",  
  "shell": "/bin/bash",  
  "platform": "centos"  
}
```

Upload data bag item to Chef Server



```
$ knife data bag from file users data_bags/users/user1.json data_bags/users/user2.json
```

```
Updated data_bag_item[users::user1]
```

```
Updated data_bag_item[users::user2]
```

Validate Chef Server Received It



```
$ knife data bag list
```

```
users
```

View Details of users Data Bag



```
$ knife data bag show users
```

```
user1
```

```
user2
```


View Details of user1



```
$ knife data bag show users/user1
```

```
comment  
gid  
home  
id  
platform  
shell  
uid
```

Search the “users” index



```
$ knife search users "*" : "*"
```

```
2 items found

chef_type: data_bag_item
Comment:   I am user2
gid:       1
home:      /home/user2
id:        user2
Platform:  centos
shell:     /bin/bash
uid:       100
....
```

Return users with “platform:centos”



```
$ knife search users "platform:centos*"
```

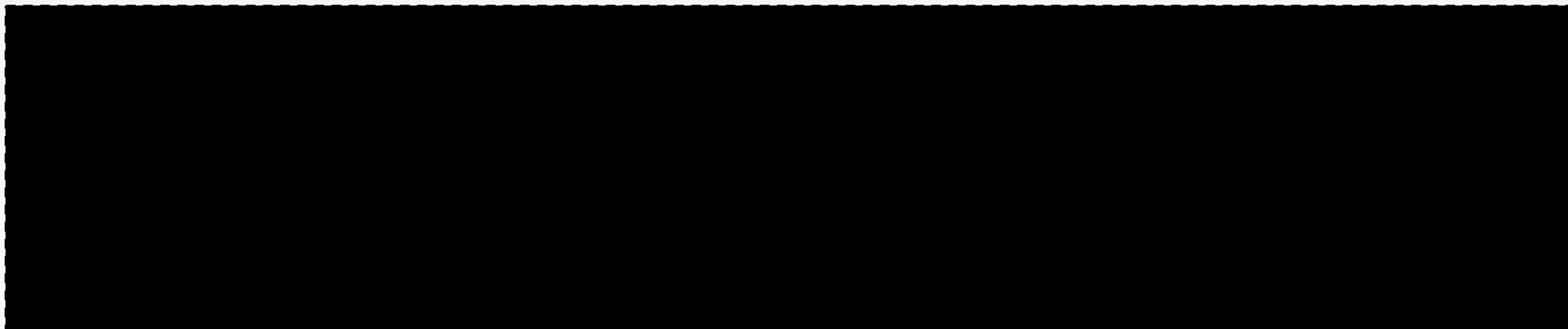
```
2 items found

chef_type: data_bag_item
Comment:   I am user2
gid:       1
home:      /home/user2
id:        user2
Platform:  centos
shell:     /bin/bash
uid:       100
....
```

Create a data_bags/groups Directory



```
$ mkdir data_bags/groups
```



Create groups Data Bag on Chef Server



```
$ knife data bag create groups
```

```
Created data_bag[groups]
```

Create group1.json

`~/chef-repo/data_bags/groups/group1.json`

```
{  
  "id": "group1",  
  "gid": 2000,  
  "members": ["user1", "user2"],  
  "platform": "centos"  
}
```

Upload data bag item to Chef Server



```
$ knife data bag from file groups data_bags/groups/group1.json
```

```
Updated data_bag_item[groups::group1]
```

Validate Chef Server Received It



```
$ knife data bag list
```

```
users  
groups
```


View Details of users Data Bag



```
$ knife data bag show groups
```

```
group1
```

View Details of user1



```
$ knife data bag show groups group1
```

```
gid:      2000
id:       group1
members:
  user1
  user2
```