

# Understanding package management with yum or dnf

Topics : [Centos Server](#)

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Package management in CentOS is primarily done using the yum (Yellowdog Updater, Modified) or dnf (Dandified Yum) commands. These package managers allow users to install, remove, update, and manage software packages on their CentOS systems. Here's an overview of how to use yum or dnf for package management:

## 1. Updating Package Repositories:

- Before installing or updating packages, it's essential to update the package repositories to ensure you have the latest information about available packages. Use one of the following commands:

```
sudo yum update
```

or

```
sudo dnf update
```

## 2. Installing Packages:

- To install a package, use the `install` option followed by the package name. For example:

```
sudo yum install package_name
```

or

```
sudo dnf install package_name
```

- Replace `package_name` with the name of the package you want to install.

## 3. Removing Packages:

- To remove a package, use the `remove` option followed by the package name. For example:

```
sudo yum remove package_name
```

or

```
sudo dnf remove package_name
```

- Replace `package_name` with the name of the package you want to remove.

#### 4. Searching for Packages:

- You can search for packages using the `search` option followed by a keyword. For example:

```
yum search keyword
```

or

```
dnf search keyword
```

- Replace `keyword` with the term you want to search for.

#### 5. Listing Installed Packages:

- To list installed packages, you can use the `list` option. For example:

```
yum list installed
```

```
dnf list installed
```

#### 6. Updating Packages:

- To update installed packages to the latest available versions, you can use the `update` option. For example:

```
sudo yum update
```

```
sudo dnf update
```

#### 7. Additional Commands:

- Both `yum` and `dnf` offer additional commands and options for advanced package management tasks, such as package group management, dependency resolution, and system upgrade procedures.

#### 8. Differences Between `yum` and `dnf`:

- `dnf` is the next-generation package manager and is the default in newer versions of CentOS (such as CentOS 8).
- `dnf` offers improved performance, dependency resolution, and additional features compared to `yum`.
- While `yum` is still available in CentOS 8, it's recommended to use `dnf` for package management tasks.