

**GETTING STARTED
WITH
COMPRESSION & ARCHIVING**

➤ **FILE COMPRESSION & ARCHIVING:**

- It is useful to store a group of files in one file for easy backup, for transfer to another directory, or for transfer to another computer.
- It is also useful to compress large files; compressed files take up less disk space and download faster via the Internet.

COMPRESSED FILE:

- A compressed file is a collection of files and directories that are stored in one file and stored in a way that uses less disk space than all the individual files and directories combined.
- Red Hat provides the following tools for compression.

Compression Tool	File Extension	Decompression Tool
bzip2	.bz2	bunzip2
gzip	.gz	gunzip
zip	.zip	unzip

NOTE: Create one large file and apply the tools.

BZIP2:

→ To compress a file using bzip2. The file will be saved as **filename.bz2**.

\$bzip2 filename

\$ls -l filename.bz2

→ To uncompress a compressed file:

\$bunzip2 filename.bz2

→ You can bzip2 multiple files and directories at the same time by listing them with a space between each one:

\$bzip2 filename.bz2 file1 file2 file3 dir1

\$ls -l filename.bz2

GZIP:

→ To compress a file using gzip. The file will be saved as **filename.gz**.

```
$gzip filename
```

```
$ls -l filename.gz
```

→ To uncompress a compressed file:

```
$gunzip filename.gz
```

→ To gzip multiple files and directories at the same time by listing them with a space between each one:

```
$gzip filename.gz file1 file2 file3 dir1
```

→ To compress a file with zip:

```
$zip filename.zip filename
```

→ To uncompress a compressed file:

```
$unzip filename.zip
```

→ To zip multiple files and directories at the same time by listing them with a space between each one:

```
$zip -r filename.zip file1 file2 file3 dir1
```

```
$ls -l filename.zip
```

➤ **ARCHIVING FILES:**

- An archive file is a collection of files and directories stored in one file.
- The archive file is not compressed - it uses the same amount of disk space as all the individual files and directories combined.

NOTE: An archive file is not compressed, but a compressed file can be an archive file.

TAR (TAPE ARCHIVE):

- A TAR file is a collection of several files and directories in one file.
- This is good way to create backups and archives.

SYNTAX: **\$tar [options] [archive-file] [file / directories to be archived]**

- c** : create a new archive.
- f** : File names.
- t** : show the list of files in the tar file.
- v** : show the progress of the files being archived.
- r** : Append files to the end of an archive
- x** : extract files from an archive.
- z** : compress the tar file with gzip.
- j** : compress the tar file with bzip2.

→ To create a tar file:

```
$tar -cvf backup.tar file1 file2 dir1 dir2
```

```
$ls -l backup.tar
```

→ To list the contents of a tar file:

```
$tar -tvf backup.tar
```

→ Appending a file to backup.tar file:

```
$tar -rvf backup.tar filename
```

→ To extract the contents of a tar file:

```
$tar -xvf backup.tar
```

→ To extract files in specific location:

```
$tar -xvf backup.tar -C /opt      $ls /opt
```

→ To create a tarred and bziped compressed file, use the -j option:

```
$tar -cjvf backup.tar.bzip2 file1 file2 dir1 dir2
```

→ To create a tarred and gunzipped compressed file, use the -z option:

```
$tar -czvf backup.tar.gz file1 file2 dir1 dir2
```

```
$ls -l backup*
```