Comparing files in the archive and file system

Sometimes it is useful to know whether files in the archive and the files with the same filename in the filesystem are the same or contain any differences. The `-d` flag can be used to print the differences:

```
$ tar -df archive.tar
afile: Mod time differs
afile: Size differs
```

Deleting files from the archive

We can remove files from a given archive using the `-delete` option. For example:

```
$ tar -f archive.tar --delete file1 file2 ..
```

Or,

```
$ tar --delete --file archive.tar [FILE LIST]
```

Let's see an example:

```
$ tar -tf archive.tar
filea
fileb
filec
```

Now let's delete filea:

```
$ tar --delete --file archive.tar filea
$ tar -tf archive.tar
fileb
filec
```

Compression with the tar archive

The `tar` command only archives files, it does not compress them. For this reason, most people usually add some form of compression when working with tarballs. This can significantly decrease the size of the files. Tarballs are often compressed into one of the following formats:

- `file.tar.gz`
- `file.tar.bz2`
- `file.tar.lzma`

Different `tar` flags are used to specify different compression formats:

- ▸ `-j` for bunzip2
- ▸ `-z` for gzip
- ▸ `--lzma` for lzma

They are explained in the following compression-specific recipes.

It is possible to use compression formats without explicitly specifying special options as above. `tar` can compress by looking at the given extension of the output or input file names. In order for tar to support compression automatically by looking at the extensions, use `-a` or `--auto-compress` with `tar`:

```
$ tar acvf archive.tar.gz filea fileb filec
filea
fileb
filec
$ tar tf archive.tar.gz
filea
fileb
filec
```

Excluding a set of files from archiving

It is possible to exclude a set of files from archiving by specifying patterns.Use `--exclude [PATTEN]` for excluding files matched by wildcard patterns.

For example, to exclude all `.txt` files from archiving use:

```
$ tar -cf arch.tar * --exclude "*.txt"
```

> Note, that the pattern should be enclosed within quotes to prevent the shell from expanding it.