In Docker, both `ADD` and `COPY` are used to copy files and directories from your host machine into a Docker image during the build process. However, there are important differences between the two commands that can affect your Docker image and its behavior. Here’s a breakdown of their differences:

### 1. Basic Functionality

- `COPY`:

- The `COPY` command is used specifically to copy files and directories from the host filesystem into the Docker image.

- Syntax:

```dockerfile

COPY <source> <destination>

```

- `ADD`:

- The `ADD` command can also copy files and directories, but it has additional capabilities compared to `COPY`.

- Syntax:

```dockerfile

ADD <source> <destination>

```

### 2. Features and Capabilities

- `COPY`:

- Only supports copying files and directories.

- It is more straightforward and is generally preferred when you only need to copy files.

- `ADD`:

- In addition to copying files and directories, `ADD` can:

- Extract Tar Files: If the source is a tar file (e.g., `.tar`, `.tar.gz`, `.tar.bz2`), `ADD` will automatically extract it into the specified destination directory.

- Use URLs: You can specify a URL as the source, and `ADD` will download the content from that URL into the image.

### 3. Recommended Usage

- Prefer `COPY`:

- For most use cases where you just need to copy files or directories, it’s recommended to use `COPY`. This makes your Dockerfile clearer and avoids unnecessary behavior (like extracting archives or downloading files) that `ADD` might introduce.

- Use `ADD` Sparingly:

- Use `ADD` only when you specifically need its additional features, such as automatic extraction of tar files or downloading files from URLs.

### 4. Example Usage

Here’s how both commands would look in a Dockerfile:

- Using `COPY`:

```dockerfile

COPY ./localfile.txt /app/localfile.txt

COPY ./localdir /app/localdir

```

- Using `ADD`:

```dockerfile

ADD ./localfile.txt /app/localfile.txt

ADD ./localdir.tar.gz /app/localdir # This will be extracted

ADD https://example.com/file.txt /app/file.txt # Downloads the file

```

### Summary

In summary, while both `ADD` and `COPY` can be used to include files in a Docker image, `COPY` is preferred for copying files, whereas `ADD` should be used when you need its additional features like extracting tar files or downloading content from a URL. Using `COPY` helps to keep your Dockerfile clear and minimizes potential unintended behavior.