8.9 Permissions

As you study this section, answer the following questions:

- What is a file mode?
- Which user accounts can change a file's mode?
- What permissions does 764 represent (when identifying permissions numerically)?
- What does the first dash represent in **-rwxrw-r--**?
- What are the default permissions for files and directories?

In this section, you will learn to:

- Set directory permissions.
- Add file permissions.
- Set file permissions.
- Enable directory browsing.

Key terms for this section include the following:

Term	Definition
Inode	An inode is a data structure on a filesystem on Linux that stores all the information about a file except its name and its actual data. This includes such things as when it was last modified, size, data block location, permissions, and ownership.
Permissions	The ability to grant a user read, write, and execute for a file and directory.

This section helps you prepare for the following certification exam objectives:

Exam	Objective
TestOut Linux Pro	4.2 Manage user and group access • Manage directory and file ownership for users and groups • Manage directory and file ownership for users and groups

CompTIA Linux+	3.1 Given a scenario, apply or acquire the appropriate user and/or group permissions and ownership.
	• File and directory permissions
	  ◦ Read, write, execute
	  ◦ User, group, other
	  ◦ Utilities
	  ▪ chmod
	  ▪ chown

	◦ getfacl ◦ setfacl ◦ ls • User types 4.3 Given a scenario, analyze and troubleshoot user issues. • Permissions ◦ File ◦ Directory 4.4 Given a scenario, analyze and troubleshoot application and hardware issues. • Permission ◦ Ownership ◦ Executables 5.1 Given a scenario, deploy and execute basic BASH scripts. • Directory and file permissions ◦ chmod