# Directory Operations Exercises

# directory_entry

- Briefly describe std::filesystem's directory_entry

# directory_iterator

- Briefly describe std::filesystem's directory_iterator

- What happens if the directory contains a subdirectory?

- Write a program that uses directory_iterator to display the names, properties and permissions of all the files in a directory

# Creating a Directory

- Write down a statement that creates a new directory using std::filesystem

- What happens if the directory already exists?

- What are the default permissions on the new directory?

- How can these permissions be changed?

# Creating a Directory

- Write a program that
  - Creates a directory and some files in it
  - Iterates over the entries in the directory
  - Displays the properties and permissions of all the entries

# Creating Multiple Directories

- Write down a statement that uses std::filesystem to create a path that contains a sequence of new directories

- What happens if some of the "new" directories already exist?

# remove_all()

- Briefly describe the remove_all function in std::filename

# recursive_directory_iterator

- Briefly describe std::filesystem's recursive_directory_iterator

- Write a program that
    - Creates a directory and some files in it
    - Creates a sequence of new directories in the new directory
    - Recursively iterates over the entries in the directory
    - Displays the properties and permissions of all the entries

# current_path()

- Briefly describe std::filesystem's current_path

- Write a program which
    - Creates a directory and some files in it
    - Sets the new directory to be the working directory
    - Displays the names of all the files in this directory
    - Changes the working directory back to its original value

# Disk Space

- Briefly describe how to use std::filesystem to find the amount of storage on a disk

- Write a simple program which displays the amount of storage on your computer's disk in gigabytes