

# The Path Class Exercises

# Path Interface

- Write a program which creates an `std::filesystem::path` object and prints out
  - The root's name and path
  - The relative path and parent path
  - The file's name, stem and extension

# Path Iteration

- Write a program which iterates over all the elements in your path object from the previous exercise

# Path Composition

- `std::filesystem::path` has `concat()` and `append()` operators
- What is the difference between these two operators?
- Write a program which builds up a path object, using `concat()` and `append()`
  - You may also use the alternative compound operators

# Filename Modification

- Write a program which creates a path object for a file and
  - Changes the directory separator to the operating system's preferred separator
  - Changes the filename's extension
  - Changes the filename's name
- What effect do these operations have on the file on disk?
  - These operations have no effect on the file
  - To change the file on disk, call rename()
- Modify your program so that the disk file's name matches the path object