Random Access to Streams Solutions

Stream Position Marker

- What is the stream position marker?
    - The stream position marker indicates the position in the stream where the next read or write operation will be performed
    - Normally, this is controlled by the stream
    - In some cases, the programmer is allowed to move it within the stream

Seek and Tell Operations

- What are seek and tell operations?
  - A tell operation gives the current position of the marker
  - A seek operation moves the marker to a different position
- Which stream member functions does C++ provide for these operations?
  - seekg and tellg for input streams
  - seekp and tellp for output streams

File Modification

- seek and tell operations could be used to modify the data in a file

- However, there is a better way to do this

- What is this alternative?
  - Read the file's data into an istringstream
  - Get the bound string and make the changes to the data
  - Overwrite the original file with the new data

- Why is this other approach better?
  - The code is simpler
  - std::string has a good interface for finding and replacing data
  - If an error occurs, the original file is not affected