Inverted Index Program Description

The Inverted Index program is a text processing application that creates an inverted index from a set of text files. An inverted index is a data structure used to map words to the documents in which they appear, enabling efficient full-text searches. This program allows users to search for terms across multiple text files and returns a list of files that contain the query terms.

Key Features:

- **Create Inverted Index**: Processes a set of text files and builds an inverted index.
- **Full-Text Search**: Allows users to search for single or multiple terms in the indexed files.
- **Efficient Retrieval**: Quickly retrieves and displays files containing the query terms.
- **Case-Insensitive Search**: Handles searches in a case-insensitive manner.
- **User Interface**: Provides a simple command-line interface for searching.

How to Use:

1. **Run the Application**: Start the application using your Python environment.
2. **Create Inverted Index**:
- Specify the directory containing the text files to be indexed.
- The program will read each file, tokenize the text, and build the inverted index.
3. **Search for Terms**:
- Enter the search terms in the command-line interface.
- The program will search the inverted index for the specified terms.
- The program will display a list of files that contain the query terms.