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### **Asst3 Indexer: README**

Our program uses a hash table to implement our indexer. By using our tokenizer program for Asst0 we were able to tokenize the input files into alphanumeric words. We then sent each token into our hash table and dealt with collisions by chaining. We used our sorted list program from Asst1 to alphabetize the tokens. Each token also has a sorted list of occurrences stored within its structure. These occurrences contain file names and a number occurrences. After recursing through inputted directories and tokenizing files, our program prints the indexer to a file and overwrites this file if it already exists. Because we used a Hash Table:

	Average	Worst case
Space	$O(n)$	$O(n)$
Insert	$O(1)$	$O(n)$

We outputs are in JSON format according to: <https://jsonformatter.curiousconcept.com/>