

# Design Document (Draft)

## Assignment 7

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### Note

I am still in the early stages of this assignment, so naturally, my design material is not yet exhaustive

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### Purpose

Create a program that will censor words in a given infile and write a punishment message to outfile

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### Pseudocode

- Parse command-line arguments
  - Create Bloom filter and hash table
    - Initialize Bloom filter
    - Initialize hash table
    - Add each word in badspeak.txt to Bloom filter and hash table
    - Add each word in oldspeak.txt to Bloom filter and add both words in oldspeak.txt and newspeak.txt to hash table
  - Read words from infile
    - If word is not in Bloom filter then move on
    - Otherwise, check for thoughtcrime and write message to outfile accordingly
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H => T

A => A

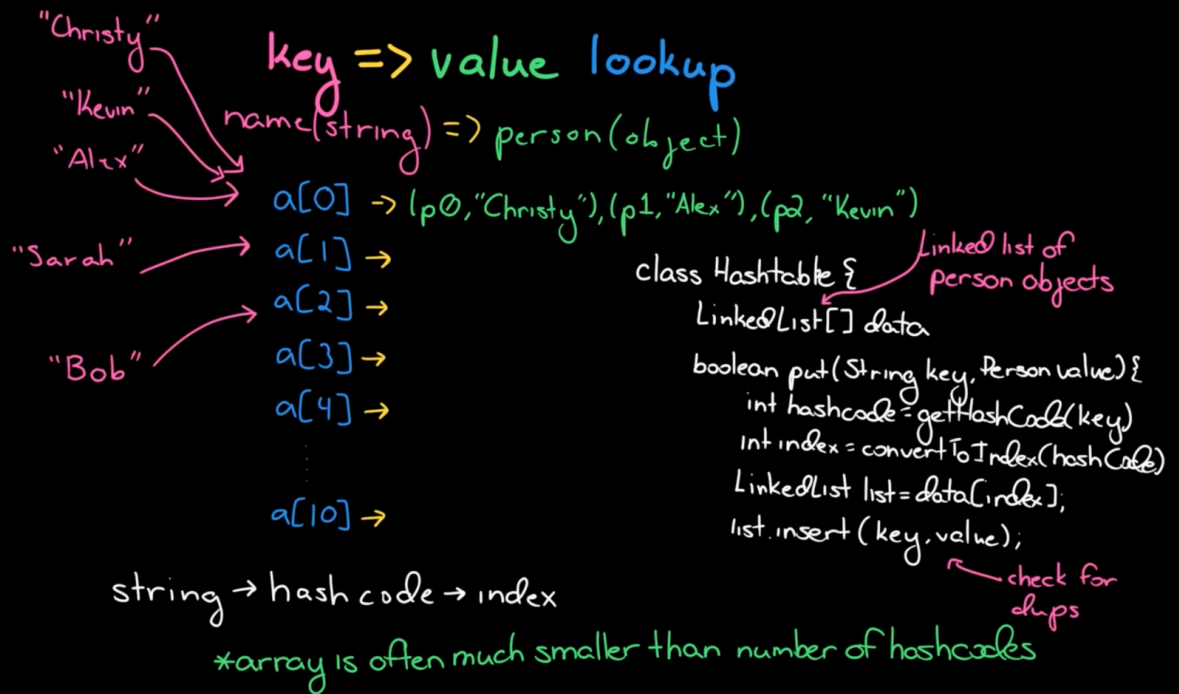
S => B

H => L

• => E

\* For any problem, have hash tables at the top of your mind

```
int hashCode(String s) {  
    // some computation  
}
```



1. Create Bloom Filter and Hash table from badspk.txt and newpeak.txt
3. Read infile
4. Write to outfile

Hash function  
given a string, get a completely unique number

key: value

Database  
insert a key and its value  
search and fetch value given a key  
Delete key and its value

{ A:B, A