SimplePostingList:

Introduction of class:

Each instance of this class contains just a word and its postings as integer numbers by increasing order, mostly used for retrieval purposes. Each instance of this class is specialized for one single word.

Fields:

token: A word that we want keep its included in which documents. Type is string.

idList: List of ids of documents that our word is included in it. Type is forward\_list<int> that is a link list of integers.

currentPosting: A pointer can be setted on idList elements.

Methods:

SimplePostingList(string): Constructor, receives and sets word.

void addSingleDocId(int): recieves one single document id and puts it in correct position (by keeping increasing order) in idList. If an id exists in list, insertion won’t happen.

void addSortedDocIds(vector<int>): recieves a sorted vector of document ids by increasing order and puts each of them in correct place of idList.

void setPointerToBegining(): sets currentPosting pointer to first element of idList.

void clear(): removes all document ids in idList.

void addDocId(vector<int>): receives an unsorted vector of document ids and puts each of them in correct place of idList.

void addByOrder(int): recieves a document id and appends id to end of list. Its useful while tokenizing documents. Before using it setPointerToBegining() method should be called and until completion of insertion any other methods of an instant should not be called.

void setNewIds(vector<int>): removes all current ids and sets input to idList. Input can be unsorted.

forward\_list<int> intersectWith(SimplePostingList): Finds common document ids between current words idList and one other as input.

Code example:

SimplePostingList firstWord(“sth”);

SimplePostingList seconWord(“othrTh”);

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Forward\_list<int> intersect = firstWord. intersectWith(secondWord);

forward\_list<int> unionWith(SimplePostingList): finds union of two words idLists(mechanism is similar to intersectWith method).

forward\_list<int> getPostings(): returns a clone of a words document id list.

void removePosting(int): removes a single document id from idList.

int postingCount(forward\_list<int>): returns number of document ids of a word. It shows how many documents includes this word.

void printAll(): prints all document ids.