

1. Student Question:

I saw the new content guidelines and it said we cannot use associative arrays. Could we still use regular arrays in java for our labs and exercises?

-Yes

Also, for exam 1, I was wondering how we would take it at Oakton. Where at Oakton do we go to take the exam?

- the Testing Center in Des Plaines or Skokie campus

Also I saw that the exam is open book, but do we have to bring our own copy of the text?

- you do not have to but can bring your textbook or use e-textbook on your laptop.

Will the exam coding question be similar to the labs and exercises?

- No, it is multiple choice quiz.

2. Student Question

For lab 3, if the key is supposed to be an integer for the hash method in the linear probing pseudo-code, is the Key supposed to be a generic object such as Key key, or an int like int key?

-If you are comfortable with it, write generic (template) classes. Otherwise just write classes that work with int or Integer keys and values.

-In Java you can create generic class using Key type.

In main() when you create object instead of Key use Integer

If it is Key key how do you return `key(>>8) | ((key&0xff)<<16)` seeing that it is bitwise operation on integers.

- you can use `key.longValue()` to get value of this Integer as a long.

Also for exercise 3, do we have to use a seed? if we are able to sort and print the data by just using a new random would that be fine?

- you can use seed or not use it, you can use default beginning value.

Student hint:

I had a difficult time with the double hashing implementation, until I tried using the output of the first hash() function as the input to the second.

3. Student Question

I noticed something interesting with the out150 file sample. Can you please confirm that we need to use size of the hash table as 191? Because for the in150 file, for linear probing in random order, the number 1675 mod 191 is 147, so when number 147 occurs in the file, it encounters collision. However the out150_sample.txt has 0 collision for both 1675 and 147. Can you please check?

-There is no contradiction, because as startIndex you shall use `index = hash(key) % table.size();`

not `key%table.size();`

and `hash(key)` is `(key>>8)|((key&0xff)<<16);`