

Friday, March 19th, 2021

Today: more STL } recap
maps.
ex 8-1 review

⇒ ex 8-2

slido.com
jhuip01

⇒ Midterm project
due Thurs 3/25 by 11pm

pair < string, int >

Recap Qs

1) map Python dict
 Java TreeMap

phone book
name → phone number

(key) → value

Set (no
duplicates)

ordered fast lookups $O(\log N)$
(default <)

std::pair

2 values
used in map

First — key
second — value

std::tuple

many values
more complicated

tuple < string, int, char > t { "Hello", 42, 'A' };

get<0>(t) \Rightarrow string("Hello")

pair < string, int > p;

p.first = "Hello";

p.second = 42;

2) return a pair or tuple

pair < int, int > div(int n, int p) {

pair < int, int > res;

res.first = n / p;

res.second = n % p;

return res;

}

3) vector - seq. (random access)
map - assoc
list - seq. (sequential seq.)
set
deque (double ended queue)

4) std::sort (works for arrays, vectors, deque)
(?)
std::find sequential

5) iterator read / modify (assignable $*i = \square;$)
const_iterator read-only $\square = *i$ $*i = \square;$
✓ ✗
--- available for
const objects / references