

## vector

- constructor
  - `vector<T> v1`
  - `vector<T> v1(v2.begin(), v2.end())`
  - `vector<T> v1(n, val)`
  - `vector<T> v1(v2)`
- iterator
  - `begin()`
  - `end()`
  - `rbegin()`
  - `rend()`
  - `cbegin()`, `cend()`, `crbegin()`, `crend()`
- capacity
  - `size()`
  - `empty()`
  - `resize(n)`
- access
  - `[]` / `at(idx)`
  - `front()`
  - `back()`
- modify
  - `push_back(v)`
  - `pop_back()`
  - `erase(ptr)`
  - `erase(v, v+k)`
  - `insert(ptr, val)`
  - `insert(ptr, size, val)`
  - `insert(ptr, v, v+k)`
  - `clear()`

## queue / pq

- `empty()`
- `size()`
- `push(v)`
- `pop()`
- `front()` (only FIFO queue)
- `back()` (only for FIFO queue)
- `top()` (only for PQ - 'last' element of array)

## set / map

- `begin`, `end`, `rbegin`, `rend`
- `empty`
- `erase(v)`
- `erase(ptr)`
- `erase(p, p+k)`

- size
- insert
- find
- lower\_bound(v)
- upper\_bound(v)

note:

- unordered\_map/unordered\_set don't have lower\_bound/upper\_bound methods
- umap/uset need hash and equal\_to functions
- set/map don't need hashes, they use comparison functions

ostringstream

- oss << v;
- oss.str()