

1. int
2. iterator of list a1
3. const iterator of list a2
4. unsigned long
5. reference to the double value 4.5 in map m1
6. reference to the double value 4.5 in map m1
7. `std::pair<const int, double>`
8. unsigned long
9. `push_back` on vectors are expected to be faster than lists. Vectors pre-allocate memory, so most of the time it does not need to allocate memory when calling `push_back` which makes it relatively fast, while lists need to allocate memory each time `push_back` is called.