

📌 Level 50 — Iteration & Iterators (std::vector)

② Three ways to iterate a vector

- ◆ Method 1: Index-based loop (old but clear)

```
for(int i = 0; i < v.size(); i++) { cout << v[i] << " "; }
```

- ◆ Method 2: Range-based for loop (modern C++)

```
for(int x : v) { cout << x << " "; }
```

④ Shorter iterator syntax (use this)

```
for(auto it = v.begin(); it != v.end(); it++) { cout << *it << " "; }
```

③ begin() and end() explained properly

- v.begin() → points to first element
- v.end() → points just AFTER last element

⚠ end() does NOT point to last element

That's why loop condition is: it != v.end()

