

JUTGE PRO2 FIB

2.1 Iteradors

GitHub: <https://github.com/MUX-enjoyer/PRO2-FIB-2025>

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Exercici: X31697 Don Camilo.cc

```
1 #include <iostream>
2 #include <vector>
3 #include <iterator>
4 using namespace std;
5
6 void inserta_don(vector<string>& frase) {
7     vector<string>::iterator it;
8     for (it = frase.begin(); it != frase.end(); ++it) {
9         if (*it == "Camilo") {
10             it = frase.insert(it, "Don");
11             ++it;
12         }
13     }
14 }
15
16 int main() {
17     string p;
18     vector<string> frase;
19     while (cin >> p) frase.push_back(p);
20     inserta_don(frase);
21     copy(frase.begin(), frase.end(),
22         ostream_iterator<string>(cout, " "));
23     cout << endl;
24 }
```

Exercici: X31852 Ajuntar paraules.cc

```
1 #include <iostream>
2 #include <sstream>
3 #include <vector>
4 using namespace std;
5
6 string join(vector<string>::iterator ini, vector<string>::iterator fin, string
sep) {
7     string s;
8     if (ini == fin) return s;
9     vector<string>::iterator it = ini;
10    s.append(*it);
11    for (++it; it != fin; ++it) {
12        s.append(sep);
13        s.append(*it);
14    }
15    return s;
16 }
17
18 int main() {
19     string line;
20     getline(cin, line);
21     const string separator = line.substr(1, line.size() - 2);
22
23     getline(cin, line);
24     istringstream S(line);
25
26     vector<string> words;
27     string word;
28     while (S >> word) {
29         words.push_back(word);
30     }
31
32     cout << '"' << join(words.begin(), words.end(), separator) << '"' << endl;
33
34     return 0;
35 }
```

Exercici: X80667 Guanyadors.cc

```
1 #include <iostream>
2 #include <iterator>
3 #include <string>
4 #include <vector>
5 using namespace std;
6
7 struct Player {
8     string name;
9     int score;
10 };
11
12 vector<string> winners(vector<Player>::iterator ini, vector<Player>::iterator
fin) {
13     vector<string> winners;
14     if (ini == fin) return winners;
15
16     int max_punt = ini->score;
17     for (vector<Player>::iterator it = ini; it != fin; ++it) {
18         if (it->score == max_punt) {
19             winners.push_back(it->name);
20         } else if (it->score > max_punt) {
21             max_punt = it->score;
22             winners.clear();
23             winners.push_back(it->name);
24         }
25     }
26     return winners;
27 }
28
29 int main() {
30     Player p;
31     vector<Player> v;
32     while (cin >> p.name >> p.score) {
33         v.push_back(p);
34     }
35     vector<string> w = winners(v.begin(), v.end());
36     for (int i = 0; i < w.size(); i++) {
37         cout << (i == 0 ? "" : " ") << w[i];
38     }
39     cout << endl;
40 }
```

Exercici: X83553 Paraula més llarga.cc

```
1 #include <iostream>
2 #include <list>
3 #include <string>
4 using namespace std;
5
6 list<string>::const_iterator longest(const list<string>& v) {
7     int mida_max = 0;
8     list<string>::const_iterator longest_word = v.end();
9     list<string>::const_iterator it;
10    for (it = v.begin(); it != v.end(); ++it) {
11        string paraula = *it;
12        if (paraula.size() > mida_max) {
13            mida_max = paraula.size();
14            longest_word = it;
15        }
16    }
17    return longest_word;
18 }
19
20 int main() {
21     string word;
22     list<string> text;
23     while (cin >> word) {
24         text.push_back(word);
25     }
26     auto i = longest(text);
27     if (i != text.end()) {
28         cout << *i << endl;
29     } else {
30         cout << "<empty sequence>" << endl;
31     }
32     return 0;
33 }
```