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1: #include <iostream>
2: #include <vector>
3: #include <map>
4: using namespace std;
5:
6: // Topic 10 >> Iterators: Sample code
7:
8: class Point
9: {
10: private:
11:     int x, y;
12:
13: public:
14:     Point(int _x = 0, int _y = 0) : x(_x), y(_y) {}
15:     int getX() const { return x; }
16:     int getY() const { return y; }
17: };
18:
19: int main()
20: {
21:     vector<int> numbers;
22:     numbers.push_back(1);
23:     numbers.push_back(2);
24:     numbers.push_back(3);
25:
26:     //without iterator
27:     for (int i = 0; i < numbers.size(); i++)
28:         cout << numbers[i] << "\t";
29:     cout << endl;
30:
31:     //with iterator
32:     vector<int>::iterator i;
33:     for (i = numbers.begin(); i != numbers.end(); i++)
34:         cout << *i << "\t";
35:     cout << endl;
36:
37:     vector<Point> points;
38:     points.push_back(Point(1, 2));
39:     points.push_back(Point(11, 22));
40:     points.push_back(Point(41, 32));
41:
42:     // work with objects without iterator
43:     for (int i = 0; i < points.size(); i++)
44:         cout << "x=" << points[i].getX() << "\ty=" << points[i].getY() << endl;
45:
46:     // work with objects with iterator
47:     vector<Point>::iterator p;
48:     for (p = points.begin(); p != points.end(); p++)
49:         cout << "x=" << (*p).getX() << "\ty=" << p->getY() << endl;
50:
51:     map<string, int> days;
52:     days["mon"] = 1;
53:     days["tue"] = 2;
54:
55:     map<int, string> hari;
56:     hari[1] = "isnin";
57:     hari[5] = "jumaat";
58:
59:     map<string, int>::iterator d;
60:     for (d = days.begin(); d != days.end(); d++)

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61:         cout << d->first << "\t" << d->second << endl;
62:
63:     map<int, string>::iterator h;
64:     for (h = hari.begin(); h != hari.end(); h++)
65:         cout << h->first << "\t" << h->second << endl;
66:
67:     system("pause");
68:     return 0;
69: }
```