

ICE v of v cheat sheet.cpp

```

1 //=====
2 // Name      : ICE.cpp
3 // Author    : Paul Hrycewicz
4 // Version   :
5 // Copyright : Your copyright notice
6 // Description : Hello World in C++, Ansi-style
7 //=====
8
9 #include <iostream>
10 #include <vector>
11 using namespace std;
12 struct flight
13 {
14     int flightNumber;
15     int planeNumber;
16     vector <string> passName;
17 };
18
19 int main() {
20
21     vector <flight> todaysFlights;
22     int flight1=100, plane1=1000, flight2=200, plane2=2000;
23     string name1="mary", name2="joe", name3="sally", name4="bob";
24
25     flight temp;
26
27     temp.flightNumber = flight1;    // create first flight in todaysFlights with some data
28     temp.planeNumber = plane1;      // first need a temp struct so that we can push
    something
29     temp.passName.push_back(name1);
30     temp.passName.push_back(name2);
31     todaysFlights.push_back(temp);  // this creates the element in todaysFlights
32
33     temp.passName.clear();          // to reuse temp, better clear out the old names
34
35     temp.flightNumber = flight2;    // create second flight, same as the first
36     temp.planeNumber = plane2;
37     temp.passName.push_back(name3);
38     temp.passName.push_back(name4);
39     todaysFlights.push_back(temp);
40
41
42     cout << "list of today's passengers - index + iterator" << endl;
43     int flightnum=0;                // will index through flights, and iterate through
    passengers
44     vector <string>::iterator pi;
45     while (flightnum < todaysFlights.size() )
46     {
47         cout << "flight number " << todaysFlights[flightnum].flightNumber << endl;
48
49         for (pi=todaysFlights[flightnum].passName.begin(); pi!=todaysFlights
    [flightnum].passName.end();pi++)
50         {
51             cout << "pass name " << *pi << endl;
52         }
53         flightnum++;
54     }

```

```
55
56     cout << "list of today's passengers - iterator + iterator" << endl;
57     vector<flight>::iterator fi; // iterate through both flights and passengers
58     for (fi=todaysFlights.begin(); fi != todaysFlights.end(); fi++)
59     {
60         cout << "flight number " << fi->flightNumber << endl;
61         for (pi=fi->passName.begin(); pi!=fi->passName.end(); pi++)
62         {
63             cout << "pass name " << *pi << endl;
64         }
65     }
66
67     return 0;
68 }
69
```