```cpp
1    #include <iostream>
2    #include <iomanip>
3    using std::cout;
4    using std::endl;
5    using std::setw;
6
7    class demo
8    {
9        char chChar;
10       int iNo;
11       float fNo;
12       double dNo;
13
14       int *pPtr1;
15       int *pPtr2;
16
17   public:
18       demo()
19       {
20           chChar = '\0';
21           iNo = 0;
22           fNo = 0.0f;
23           dNo = 0.0;
24
25           pPtr1 = NULL;
26
27           pPtr2 = new int[3];
28           if(NULL == pPtr2)
29           {
30               cout << "Memory allocation FAILED\n";
31               return;
32           }
33
34           /*
35           for(int iCounter = 0; iCounter < 3; iCounter++)
36               pPtr2[iCounter] = 0;
37           */
38
39           memset(pPtr2, 0, 3 * sizeof(int));
40       }
41
42       ~demo()
43       {
44           chChar = '\0';
45           iNo = 0;
46           fNo = 0.0f;
47           dNo = 0.0;
48
49           pPtr1 = NULL;
50
51           if(pPtr2 != NULL)
52           {
53               delete []pPtr2;
54               pPtr2 = NULL;
55           }
56       }
57
58       void set(char chParam, int iParam, float fParam, double dParam)
59       {
60           chChar = chParam;
61           iNo = iParam;
62           fNo = fParam;
63           dNo = dParam;
64
65           pPtr1 = &iNo;
66
67           if(pPtr2 != NULL)
```

```cpp
68              {
69                  for(int iCounter = 0; iCounter < 3; iCounter++)
70                      pPtr2[iCounter] = iParam + iCounter + 1;
71              }
72          }
73
74      void get()
75          {
76              cout << "Character is " << chChar << endl;
77              cout << "Integer is " << iNo << endl;
78              cout << "Float is " << fNo << endl;
79              cout << "Double is " << dNo << endl;
80
81              cout << "&iNo is " << &iNo << endl;
82              cout << "pPtr1 is " << pPtr1 << endl;
83              if(pPtr1 != NULL)
84                  cout << "*pPtr1 is " << *pPtr1 << endl;
85
86              cout << "pPtr2 is " << pPtr2 << endl;
87              cout << "pPtr2 values are :\n";
88              if(pPtr2 != NULL)
89              {
90                  for(int iCounter = 0; iCounter < 3; iCounter++)
91                      cout << pPtr2[iCounter] << setw(20);
92                  cout << endl;
93              }
94          }
95
96      demo(demo &refobj)
97          {
98              cout << "\nIn copy constructor\n";
99              chChar = refobj.chChar;
100             iNo = refobj.iNo;
101             fNo = refobj.fNo;
102             dNo = refobj.dNo;
103
104             pPtr1 = refobj.pPtr1;
105             pPtr2 = refobj.pPtr2;
106         }
107
108     demo& operator =(demo &refobj2)
109         {
110             cout << "\nIn assignment operator\n";
111             chChar = refobj2.chChar;
112             iNo = refobj2.iNo;
113             fNo = refobj2.fNo;
114             dNo = refobj2.dNo;
115
116             pPtr1 = refobj2.pPtr1;
117             pPtr2 = refobj2.pPtr2;
118
119             return *this;
120         }
121 };
122
123 int main(void)
124 {
125     demo obj1;
126     cout << "OBJ1:\n";
127     obj1.get();
128
129     obj1.set('A', 10, 57.33f, 69.33);
130     cout << "\nOBJ1:\n";
131     obj1.get();
132
133     demo obj2 = obj1;
134     cout << "\nOBJ2:\n";
```

```cpp
135        obj2.get();
136
137        demo obj3;
138        obj3 = obj1;
139        cout << "\nOBJ3:\n";
140        obj3.get();
141
142        cout << "Done\n";
143
144        return 0;
145    }
146
```