

```

1  #include <iostream>
2  #include <string>
3
4  using namespace std;
5
6  class Student {
7  protected:
8      string name;
9      int id;
10 public:
11     Student(string n, int i) : name(n), id(i) {}
12     virtual void displayInfo() = 0;
13 };
14
15 class Law : public Student {
16 public:
17     Law(string n, int i) : Student(n, i) {}
18     void displayInfo() {
19         cout << "Name: " << name << "\nReg: " << id << "\nCourse: Law" << endl;
20     }
21 };
22
23
24 class Business : public Student {
25 public:
26     Business(string n, int i) : Student(n, i) {}
27     void displayInfo() {
28         cout << "Name: " << name << "\nReg: " << id << "\nCourse: Business" << endl;
29     }
30 };
31
32 class ICT : public Student {
33 public:
34     ICT(string n, int i) : Student(n, i) {}
35     virtual void displayInfo() = 0;
36 };
37
38
39 class ICTCertificate : public ICT {
40 public:
41     ICTCertificate(string n, int i) : ICT(n, i) {}
42     void displayInfo() {
43         cout << "Name: " << name << "\nReg: " << id << "\nCourse: ICT\nProgram:
44 Certificate" << endl;
45     }
46 };
47
48 class ICTDiploma :public ICT {
49 public:
50     ICTDiploma(string n, int i) : ICT(n, i) {}
51     void displayInfo() {
52         cout << "Name: " << name << "\nReg: " << id << "\nCourse: ICT\nProgram: Diploma"
53 << endl;
54     }
55 };
56
57 class BscIT : public ICT {
58 protected:
59     int stage;
60 public:
61     BscIT(string n, int i, int s) : ICT(n, i), stage(s) {}
62     virtual void displayInfo() = 0;
63 };
64
65 class BscITStage1 : public BscIT {
66 public:
67     BscITStage1(string n, int i) : BscIT(n, i, 1) {}
68     void displayInfo() {
69         cout << "Name: " << name << "\nReg: " << id << "\nCourse: ICT\nProgram:
70 BSC-IT\nStage: 1" << endl;
71     }
72 };
73
74 class BscITStage2 : public BscIT {
75 public:
76     BscITStage2(string n, int i) : BscIT(n, i, 2) {}
77     void displayInfo() {
78         cout << "Name: " << name << "\nReg: " << id << "\nCourse: ICT\nProgram:
79 BSC-IT\nStage: 2" << endl;
80     }
81 };
82
83 class BscITStage3 : public BscIT {
84 public:
85     BscITStage3(string n, int i) : BscIT(n, i, 3) {}
86     void displayInfo() {
87         cout << "Name: " << name << "\nReg: " << id << "\nCourse: ICT\nProgram:

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```

81     BSC-IT\nStage: 3" << endl;
82     }
83 };
84
85
86 int main() {
87
88     Law la("Mary", 12390);
89     la.displayInfo();
90     cout << endl;
91
92     Business bs("Rose", 19372);
93     bs.displayInfo();
94     cout << endl;
95
96     ICTCertificate itc("Mercy", 78203);
97     itc.displayInfo();
98     cout << endl;
99
100    ICTDiploma itd("Martin", 54879);
101    itd.displayInfo();
102    cout << endl;
103
104
105    BscITStage1 s1("Daniel", 49718);
106    s1.displayInfo();
107    cout << endl;
108
109    BscITStage2 s2("Caroline", 70231);
110    s2.displayInfo();
111    cout << endl;
112
113    BscITStage3 s3("Jemma", 75024);
114    s3.displayInfo();
115    cout << endl;
116
117 }
118

```