```
1: #include <iostream>
 2: #include <string>
 3: using namespace std;
 4: int main(){
 5:
        int mode;
 6:
        bool end = false;
 7:
        string str;
        string text[5], graph[5];
 8:
 9:
        text[0] = "(happy)";
                                      graph[0] = "^w^";
10:
        text[1] = "(heart)";
                                      graph[1] = "<3";
        text[2] = "(confused)";
11:
                                      graph[2] = "?_?";
12:
        text[3] = "(kiss)";
                                      graph[3] = "-3-";
        text[4] = "(speechless)";
                                      graph[4] = "= =";
13:
        size_t found;
14:
        // finish the program here
15:
        while(!end)
16:
17:
        {
            cout<<"Please enter the mode: ";</pre>
18:
19:
            cin>>mode:
20:
            cin.ignore(100,'\n');
21:
            if(mode==-1)
22:
            {
23:
                 cout<<"Programs ends...";
24:
                 break;
25:
26:
            if(mode==0)
27:
            {
28:
                 cout<<"Input: ";
                 getline(cin,str);
29:
30:
31:
                 found=str.find(text[0]);
32:
                while(found!=string::npos){
33:
                     str.replace(found,7,graph[0]);
34:
                     found=str.find(text[0],found+1);
35:
36:
                 found=str.find(text[1]);
37:
                 while(found!=string::npos){
                     str.replace(found,7,graph[1]);
38:
39:
                     found=str.find(text[1],found+1);
40:
41:
                 found=str.find(text[2]);
42:
                 while(found!=string::npos){
43:
                     str.replace(found, 10, graph[2]);
                     found=str.find(text[2],found+1);
44:
45:
                 }
46:
                 found=str.find(text[3]);
```

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47:
                while(found!=string::npos){
48:
                    str.replace(found,6,graph[3]);
                    found=str.find(text[3],found+1);
49:
50:
51:
                found=str.find(text[4]);
                while(found!=string::npos){
52:
53:
                    str.replace(found, 12, graph[4]);
54:
                    found=str.find(text[4],found+1);
55:
                cout<<"Output: "<<str<<"\n-----\n":
56:
57:
58:
            if(mode==1)
59:
            {
                cout<<"Input: ";</pre>
60:
61:
                getline(cin,str);
62:
63:
                found=str.find(graph[0]);
                while(found!=string::npos){
64:
                    str.replace(found,3,text[0]);
65:
66:
                    found=str.find(graph[0],found+1);
67:
                found=str.find(graph[1]);
68:
                while(found!=string::npos){
69:
                    str.replace(found, 2, text[1]);
70:
71:
                    found=str.find(graph[1],found+1);
72:
73:
                found=str.find(graph[2]);
                while(found!=string::npos){
74:
75:
                    str.replace(found,3,text[2]);
76:
                    found=str.find(graph[2],found+1);
77:
78:
                found=str.find(graph[3]);
79:
                while(found!=string::npos){
80:
                    str.replace(found,3,text[3]);
81:
                    found=str.find(graph[3],found+1);
82:
83:
                found=str.find(graph[4]);
                while(found!=string::npos){
84:
85:
                    str.replace(found,3,text[4]);
                    found=str.find(graph[4],found+1);
86:
87:
                cout<<"Output: "<<str<<"\n-----\n";</pre>
88:
89:
            }
90:
91:
        return 0;
92: }
```