```
1 using System;
 2 using System.Collections.Generic;
 3 using System.Data;
 4 using System.Linq;
 5 using System.Text;
 6 using System.Threading.Tasks;
8 namespace DAL
9 {
10
       public class CardFunctions
11
           public static List<Card> getByClub(string club)
12
13
           {
14
                List<Card> ret = new List<Card>();
15
                string com = "SELECT * FROM [card] where [club] = '" + club + "'";
16
                DataTable dt = oledbhelper.GetTable(com);
17
                foreach (DataRow dr in dt.Rows)
18
19
                    Card c = new Card(Convert.ToInt32(dr.ItemArray[0].ToString()),
                      dr.ItemArray[1].ToString(), dr.ItemArray[2].ToString(),
                                                                                       P
                      dr.ItemArray[3].ToString(), dr.ItemArray[4].ToString(),
                                                                                       P
                      Convert.ToInt32(dr.ItemArray[5].ToString()), dr.ItemArray
                      [6].ToString(), dr.ItemArray[7].ToString());
20
21
                    ret.Add(c);
22
23
                return ret;
24
           }
25
           public static List<string> getByClubNames(string club)
26
27
                List<string> ret = new List<string>();
                string com = "SELECT * FROM [card] where [club] = '" + club + "'";
28
29
                DataTable dt = oledbhelper.GetTable(com);
30
                foreach (DataRow dr in dt.Rows)
31
32
                    ret.Add(dr.ItemArray[1].ToString());
33
34
                return ret;
35
           public static List<Card> getByNation(string nation)
36
37
38
                List<Card> ret = new List<Card>();
39
                string com = "SELECT * FROM [card] where [country] = '" + nation +
                DataTable dt = oledbhelper.GetTable(com);
40
41
                foreach (DataRow dr in dt.Rows)
42
43
                    Card c = new Card(Convert.ToInt32(dr.ItemArray[0].ToString()),
                      dr.ItemArray[1].ToString(), dr.ItemArray[2].ToString(),
                                                                                       P
                      dr.ItemArray[3].ToString(), dr.ItemArray[4].ToString(),
                                                                                       P
                      Convert.ToInt32(dr.ItemArray[5].ToString()), dr.ItemArray
                      [6].ToString(), dr.ItemArray[7].ToString());
```

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```
44
45
                    ret.Add(c);
46
                }
47
                return ret;
48
            }
49
            public static Card getByRating(int ratinglow, int ratinghigh)
50
                string com = "SELECT * FROM [card] where [rating] >= " + ratinglow + >
51
                  " and [rating] <=" + ratinghigh;</pre>
52
                DataTable dt = oledbhelper.GetTable(com);
53
                Random rnd = new Random();
54
                int num = rnd.Next(0, dt.Rows.Count);
55
                DataRow dr = dt.Rows[num];
56
                int itemNum = dr.ItemArray.Length;
57
                Card c = new Card(Convert.ToInt32(dr.ItemArray[0].ToString()),
                  dr.ItemArray[1].ToString(), dr.ItemArray[2].ToString(),
                  dr.ItemArray[3].ToString(), dr.ItemArray[4].ToString(),
                                                                                        P
                  Convert.ToInt32(dr.ItemArray[5].ToString()), dr.ItemArray
                  [6].ToString(), dr.ItemArray[7].ToString());
58
                return c;
59
            }
60
            public static Card getByCardId(int id)
61
62
                string com = "SELECT * FROM [card] where [cardID] = " + id;
63
                DataTable dt = oledbhelper.GetTable(com);
64
                DataRow dr = dt.Rows[0];
65
                int itemNum = dr.ItemArray.Length;
66
                Card c = new Card(Convert.ToInt32(dr.ItemArray[0].ToString()),
                  dr.ItemArray[1].ToString(), dr.ItemArray[2].ToString(),
                  dr.ItemArray[3].ToString(), dr.ItemArray[4].ToString(),
                                                                                        P
                  Convert.ToInt32(dr.ItemArray[5].ToString()), dr.ItemArray
                  [6].ToString(), dr.ItemArray[7].ToString());
67
                return c;
68
            }
69
            public static List<Card> getALLByCardId(string Id)
70
            {
71
                try
72
                {
                    string com = "SELECT * FROM [card] where [cardID] IN " + Id;
73
74
                    DataTable dt = oledbhelper.GetTable(com);
75
                    List<Card> lc = new List<Card>();
                    for (int i = 0; i < dt.Rows.Count; i++)</pre>
76
77
78
                        DataRow dr = dt.Rows[i];
79
                        int itemNum = dr.ItemArray.Length;
80
                        lc.Add(new Card(Convert.ToInt32(dr.ItemArray[0].ToString()),
                         dr.ItemArray[1].ToString(), dr.ItemArray[2].ToString(),
                         dr.ItemArray[3].ToString(), dr.ItemArray[4].ToString(),
                         Convert.ToInt32(dr.ItemArray[5].ToString()), dr.ItemArray
                         [6].ToString(), dr.ItemArray[7].ToString()));
81
                    }
82
                    return lc;
```

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```
83
 84
                 catch { return new List<Card>(); }
 85
 86
             public static Dictionary<string, clubColour> getcolours()
 87
 88
                 var dic =new Dictionary<string, clubColour>();
 89
                 string com = "SELECT * FROM [Clubs]";
                 DataTable dt = oledbhelper.GetTable(com);
 90
 91
                 foreach (DataRow dr in dt.Rows)
 92
 93
                     dic.Add(dr.ItemArray[1].ToString(),new clubColour(dr.ItemArray
                       [2].ToString(), dr.ItemArray[3].ToString()));
 94
                 }
 95
                 return dic;
 96
             }
 97
             public static List<string[]> getClubsTotal()
 98
 99
                 var li = new List<string[]>();
                 string com = "SELECT * FROM [Clubs]";
100
101
                 DataTable dt = oledbhelper.GetTable(com);
102
                 foreach (DataRow dr in dt.Rows)
103
104
                     li.Add(new string[] {dr.ItemArray[1].ToString(),dr.ItemArray
                       [4].ToString() });
105
                 }
106
                 return li;
107
             }
108
         }
109
    }
```

3