```java
01 package DBLayer;
02
03 import java.sql.*;
04 import java.util.ArrayList;
05 import ModelLayer.*;
06
07 import ModelLayer.Cage;
08
09 public class DBHall implements IFDBHall
10 {
11     private Connection con;
12     public DBHall()
13     {
14         con = DbConnection.getInstance().getDBcon();
15     }
16     public ArrayList<Hall> getAllHalls (boolean
17     retriveAssociation)
18     {
19         return miscWhere("", retriveAssociation);
20     }
21
22     public Hall findHall(int hallNo, boolean retriveAssociation)
23     {
24         String wClause = " hallNo = ' " + hallNo + "'";
25         return singleWhere(wClause, retriveAssociation);
26     }
27
28     public int createHall(Hall hall) throws Exception
29     {
30         int rc = -1;
31         String query = "INSERT INTO mfHall(hallNo, farmCvr) VALUES
32         ('"+
33                 hall.getHallNo() + "', '" +
34                 hall.getFarmCvr() + "')";
35         System.out.println("insert : " + query);
36         try
37         {
38             Statement stmt = con.createStatement();
39             stmt.setQueryTimeout(5);
40             rc = stmt.executeUpdate(query);
41             stmt.close();
42         }
43         catch(SQLException ex)
44         {
45             System.out.println("Hall er ikke oprettet");
46             throw new Exception("Hall er ikke tilføjet");
47         }
48         return (rc);
49
50     }
51
52     public int deleteHall(int hallNo)
53     {
54 int rc =-1;
55
56         String qry = "DELETE FROM mfCage WHERE hallNo = '" +
57         hallNo + "'";
58         System.out.println(qry);
59         try
60         {
61             Statement stmt = con.createStatement();
62             stmt.setQueryTimeout(5);
63             rc = stmt.executeUpdate(qry);
64             stmt.close();
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65              }
66              catch(Exception ex)
67              {
68                      System.out.println("Delete exception in Hall db: "+ex)
69                      ;
70              }
71          return(rc);
72      }
73
74      public int updateHall(Hall hall)
75      {
76          Hall hallkobj = hall;
77          int rc= -1;
78
79          String qry = "UPDATE mfHall SET" +
80                      "hallNo = '" + hallkobj.getHallNo()+"', " +
81                      "FarmCvr ='" + hallkobj.getFarmCvr() + "', ";
82
83                  System.out.println("Update query: " + qry);
84                  try
85                  {
86                          Statement stmt = con.createStatement();
87                          stmt.setQueryTimeout(5);
88                          rc = stmt.executeUpdate(qry);
89
90                          stmt.close();
91                  }
92                  catch(Exception ex)
93                  {
94                          System.out.println("Update exception in Hall db:
" + ex)
95                          ;
96                  }
97                  return(rc);
98      }
99
100     private ArrayList<Hall> miscWhere(String wClause, boolean
101     retrieveAssociation)
102     {
103         ResultSet results;
104         ArrayList<Hall> hall = new ArrayList<Hall>();
105
106         String query = buildquery(wClause);
107         System.out.println(query);
108         try
109         {
110             Statement stmt = con.createStatement();
111             stmt.setQueryTimeout(5);
112             results = stmt.executeQuery(query);
113
114         while(results.next())
115         {
116             Hall hallobj = new Hall();
117             hallobj = buildHall(results);
118             hall.add(hallobj);
119         }
120         stmt.close();
121         return hall;
122         }
123         catch(Exception e)
124         {
125             System.out.println(e.getMessage());
126             return null;
127         }
```

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128    }
129    private Hall buildHall(ResultSet results)
130    {
131         Hall hallObj = new Hall();
132         try
133         {
134              hallObj.setHallNo(results.getInt("hallNo"));
135              hallObj.setFarmCvr(results.getInt("farmCvr"));
136
137         }
138         catch(Exception e)
139         {
140              System.out.println("Error in building hall");
141         }
142         return hallObj;
143
144    }
145    private String buildquery(String wClause)
146    {
147         String query = "SELECT hallNo, farmCvr FROM mfHall";
148         if(wClause.length()>0)
149              query=query + " WHERE " + wClause;
150         return query;
151    }
152    private Hall singleWhere(String wClause, boolean
153    retrieveAssociation)
154    {
155         ResultSet results;
156         Hall hallobj = new Hall();
157         String query = buildquery(wClause);
158         System.out.println(query);
159
160         try
161         {
162              Statement stmt = con.createStatement();
163              stmt.setQueryTimeout(5);
164              results = stmt.executeQuery(query);
165
166              if(results.next())
167              {
168                   hallobj = buildHall(results);
169              }
170              stmt.close();
171         }
172         catch(Exception e)
173         {
174              System.out.println(" Query exception: " + e);
175         }
176         return hallobj;
177    }
178
179
180 }
```