

```
1 package chapter20.memo;
2
3 import java.sql.Connection;
4 import java.sql.DriverManager;
5 import java.sql.PreparedStatement;
6 import java.sql.ResultSet;
7 import java.sql.Statement;
8 import java.sql.Timestamp;
9 import java.util.ArrayList;
10 import java.util.List;
11
12 public class MemoDAO {
13     private static MemoDAO instance = new MemoDAO();
14     private MemoDAO() {
15     }
16     public static MemoDAO getInstance() {
17         return instance;
18     }
19
20     public List<MemoVO> selectMemos() throws Exception {
21         Class.forName("oracle.jdbc.driver.OracleDriver");
22         String url = "jdbc:oracle:thin:@localhost:1521:XE";
23         String user = "sem";
24         String password = "java";
25         Connection connection = DriverManager.getConnection(url, user, password);
26         Statement statement = connection.createStatement();
27         StringBuilder builder = new StringBuilder();
28         builder.append("SELECT ");
29         builder.append("    no, ");
30         builder.append("    title, ");
31         builder.append("    content, ");
32         builder.append("    b.mem_name writer, ");
33         builder.append("    register_date, ");
34         builder.append("    modify_date ");
35         builder.append("FROM ");
36         builder.append("    memo a ");
37         builder.append("    INNER JOIN member b ON a.writer = b.mem_id ");
38         String sql = builder.toString();
39         ResultSet resultSet = statement.executeQuery(sql);
40         List<MemoVO> list = new ArrayList<>();
41         while (resultSet.next()) {
42             int no = resultSet.getInt("no");
43             String title = resultSet.getString("title");
44             String content = resultSet.getString("content");
45             String writer = resultSet.getString("writer");
46             Timestamp registerDate = resultSet.getTimestamp("register_date");
47             Timestamp modifyDate = resultSet.getTimestamp("modify_date");
48             list.add(new MemoVO(no, title, content, writer, registerDate,
modifyDate));
49         }
50         resultSet.close();
}
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51     statement.close();
52     connection.close();
53     return list;
54 }
55 public MemoVO selectMemo(int searchNo) throws Exception {
56     Class.forName("oracle.jdbc.driver.OracleDriver");
57     String url = "jdbc:oracle:thin:@localhost:1521:XE";
58     String user = "sem";
59     String password = "java";
60     Connection connection = DriverManager.getConnection(url, user, password);
61     StringBuilder builder = new StringBuilder();
62     builder.append("SELECT ");
63     builder.append("    no, ");
64     builder.append("    title, ");
65     builder.append("    content, ");
66     builder.append("    b.mem_name writer, ");
67     builder.append("    register_date, ");
68     builder.append("    modify_date ");
69     builder.append("FROM ");
70     builder.append("    memo a ");
71     builder.append("    INNER JOIN member b ON a.writer = b.mem_id ");
72     builder.append("WHERE");
73     builder.append("    a.no = ?");
74     String sql = builder.toString();
75     PreparedStatement statement = connection.prepareStatement(sql);
76     statement.setInt(1, searchNo);
77     ResultSet resultSet = statement.executeQuery();
78     MemoVO memo = null;
79     if (resultSet.next()) {
80         int no = resultSet.getInt("no");
81         String title = resultSet.getString("title");
82         String content = resultSet.getString("content");
83         String writer = resultSet.getString("writer");
84         Timestamp registerDate = resultSet.getTimestamp("register_date");
85         Timestamp modifyDate = resultSet.getTimestamp("modify_date");
86         memo = new MemoVO(no, title, content, writer, registerDate,
87             modifyDate);
88     }
89     resultSet.close();
90     statement.close();
91     connection.close();
92     return memo;
93 }
94 public int insertMemo(MemoVO vo) throws Exception {
95     Class.forName("oracle.jdbc.driver.OracleDriver");
96     String url = "jdbc:oracle:thin:@localhost:1521:XE";
97     String user = "sem";
98     String password = "java";
99     Connection connection = DriverManager.getConnection(url, user, password);
100    StringBuilder builder = new StringBuilder();
101    builder.append("INSERT INTO ");
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101     builder.append("    memo ");
102     builder.append("    ( ");
103     builder.append("        no, ");
104     builder.append("        title, ");
105     builder.append("        content, ");
106     builder.append("        writer ");
107     builder.append("    ) ");
108     builder.append("VALUES ");
109     builder.append("    ( ");
110     builder.append("        seq_memo.NEXTVAL, ");
111     builder.append("        ?, ");
112     builder.append("        ?, ");
113     builder.append("        ? ");
114     builder.append("    ) ");
115     String sql = builder.toString();
116     PreparedStatement statement = connection.prepareStatement(sql);
117     statement.setString(1, vo.getTitle());
118     statement.setString(2, vo.getContent());
119     statement.setString(3, vo.getWriter());
120
121     int count = statement.executeUpdate();
122     statement.close();
123     connection.close();
124     return count;
125 }
126 public int updateMemo(MemoVO vo) throws Exception {
127     Class.forName("oracle.jdbc.driver.OracleDriver");
128     String url = "jdbc:oracle:thin:@localhost:1521:XE";
129     String user = "sem";
130     String password = "java";
131     Connection connection = DriverManager.getConnection(url, user, password);
132     StringBuilder builder = new StringBuilder();
133     builder.append("UPDATE ");
134     builder.append("    memo ");
135     builder.append("SET ");
136     builder.append("    title = ?, ");
137     builder.append("    content = ?, ");
138     builder.append("    writer = ?, ");
139     builder.append("    modify_date = SYSDATE ");
140     builder.append("WHERE ");
141     builder.append("    no = ? ");
142     String sql = builder.toString();
143     PreparedStatement statement = connection.prepareStatement(sql);
144     statement.setString(1, vo.getTitle());
145     statement.setString(2, vo.getContent());
146     statement.setString(3, vo.getWriter());
147     statement.setInt(4, vo.getNo());
148
149     int count = statement.executeUpdate();
150     statement.close();
151     connection.close();
```

```
152     return count;
153 }
154 public int deleteMemo(int deleteNo) throws Exception {
155     Class.forName("oracle.jdbc.driver.OracleDriver");
156     String url = "jdbc:oracle:thin:@localhost:1521:XE";
157     String user = "sem";
158     String password = "java";
159     Connection connection = DriverManager.getConnection(url, user, password);
160     StringBuilder builder = new StringBuilder();
161     builder.append("DELETE FROM ");
162     builder.append("    memo ");
163     builder.append("WHERE ");
164     builder.append("    no = ? ");
165     String sql = builder.toString();
166     PreparedStatement statement = connection.prepareStatement(sql);
167     statement.setInt(1, deleteNo);
168
169     int count = statement.executeUpdate();
170     statement.close();
171     connection.close();
172     return count;
173 }
174 }
175
```