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Package Explorer ×

```
> bankingapp-with-jdbc [indium_javabootcamp-batch
  > JRE System Library [JavaSE-17]
  > src
    > com.indium.bankingapp
      > BankingAppMain.java
    > com.indium.bankingapp.model
      > Account.java
    > com.indium.bankingapp.service
      > AccountService.java
      > AccountServiceMySQLImpl.java
  > Referenced Libraries
    > mysql-connector-java-8.0.30.jar
  > lib
```

AccountServiceMySQLImpl.java ×

```java
 1  package com.indium.bankingapp.service;
 2
 3  import com.indium.bankingapp.model.Account;
 4
 5  import java.sql.Connection;
 6  import java.sql.DriverManager;
 7  import java.sql.PreparedStatement;
 8  import java.sql.ResultSet;
 9  import java.sql.SQLException;
10  import java.util.ArrayList;
11  import java.util.List;
12
13  public class AccountServiceMySQLImpl implements AccountService<Account> {
14      private static final String DB_URL = "jdbc:mysql://localhost:3306/bankingapp";
15      private static final String DB_USER = "root";
16      private static final String DB_PASSWORD = "DBPassword";
17
18      //Defining SQL queries here
19      private static final String CREATE_ACCOUNT_SQL = "INSERT INTO accounts (id, name, bal
20      private static final String GET_ALL_ACCOUNTS_SQL = "SELECT * FROM accounts";
21      private static final String GET_ACCOUNT_BY_ID_SQL = "SELECT * FROM accounts WHERE id
22      private static final String UPDATE_ACCOUNT_SQL = "UPDATE accounts SET name = ?, balan
23      private static final String DELETE_ACCOUNT_SQL = "DELETE FROM accounts WHERE id = ?";
24
25      @Override
26      public boolean createAccount(Account account) {
27          try (Connection connection = DriverManager.getConnection(DB_URL, DB_USER, DB_PASS
28              PreparedStatement preparedStatement = connection.prepareStatement(CREATE_ACC
29              preparedStatement.setInt(1, account.getId());
30              preparedStatement.setString(2, account.getName());
31              preparedStatement.setDouble(3, account.getBalance());
32              preparedStatement.setDouble(4, account.getRoi());
33              preparedStatement.setString(5, account.getAccountType());
```

Task List ×

Find   All Activate...

Outline ×

```
com.indium.bankingapp.service
  AccountServiceMySQLImpl
    DB_URL : String
    DB_USER : String
    DB_PASSWORD : String
    CREATE_ACCOUNT_SQL : String
    GET_ALL_ACCOUNTS_SQL : Strin
    GET_ACCOUNT_BY_ID_SQL : Stri
    UPDATE_ACCOUNT_SQL : String
    DELETE_ACCOUNT_SQL : String
    createAccount(Account) : boolea
    getAllAccounts() : List<Account
```

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AccountServiceMySQLImpl.java ×

```java
34
35              int rowsAffected = preparedStatement.executeUpdate();
36              return rowsAffected > 0;
37          } catch (SQLException e) {
38              e.printStackTrace();
39              return false;
40          }
41      }
42
43      @Override
44      public List<Account> getAllAccounts() {
45          List<Account> accounts = new ArrayList<>();
46
47          try (Connection connection = DriverManager.getConnection(DB_URL, DB_USER, DB_PASS
48              PreparedStatement preparedStatement = connection.prepareStatement(GET_ALL_AC
49              ResultSet resultSet = preparedStatement.executeQuery();
50
51              while (resultSet.next()) {
52                  int id = resultSet.getInt("id");
53                  String name = resultSet.getString("name");
54                  double balance = resultSet.getDouble("balance");
55                  double roi = resultSet.getDouble("roi");
56                  String accountType = resultSet.getString("account_type");
57
58                  Account account = new Account(id, name, balance, roi, accountType);
59                  accounts.add(account);
60              }
61          } catch (SQLException e) {
62              e.printStackTrace();
63          }
64
65          return accounts;
```

Package Explorer section:
- bankingapp-with-jdbc [indium_javabootcamp-batch]
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Task List ×

Find   ▸ All ▸ Activate...

Outline ×
- com.indium.bankingapp.service
- AccountServiceMySQLImpl
  - DB_URL : String
  - DB_USER : String
  - DB_PASSWORD : String
  - CREATE_ACCOUNT_SQL : String
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  - GET_ACCOUNT_BY_ID_SQL : Strin
  - UPDATE_ACCOUNT_SQL : String
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  > 🗁 JRE System Library [JavaSE-17]
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      > 📄 AccountService.java
      > 📄 AccountServiceMySQLImpl.java
  > 🗁 Referenced Libraries
  > 🗁 > lib

AccountServiceMySQLImpl.java ×

```java
67
68⊖    @Override
69     public Account getAccount(int id) {
70         try (Connection connection = DriverManager.getConnection(DB_URL, DB_USER, DB_PASS
71              PreparedStatement preparedStatement = connection.prepareStatement(GET_ACCOUN
72             preparedStatement.setInt(1, id);
73             ResultSet resultSet = preparedStatement.executeQuery();
74
75             if (resultSet.next()) {
76                 String name = resultSet.getString("name");
77                 double balance = resultSet.getDouble("balance");
78                 double roi = resultSet.getDouble("roi");
79                 String accountType = resultSet.getString("account_type");
80
81                 return new Account(id, name, balance, roi, accountType);
82             }
83         } catch (SQLException e) {
84             e.printStackTrace();
85         }
86
87         return null;
88     }
89
90⊖    @Override
91     public boolean updateAccount(int id, Account account) {
92         try (Connection connection = DriverManager.getConnection(DB_URL, DB_USER, DB_PASS
93              PreparedStatement preparedStatement = connection.prepareStatement(UPDATE_ACC
94             preparedStatement.setString(1, account.getName());
95             preparedStatement.setDouble(2, account.getBalance());
96             preparedStatement.setDouble(3, account.getRoi());
97             preparedStatement.setString(4, account.getAccountType());
98             preparedStatement.setInt(5, id);
99
```

Task List ×

Find   ▸ All ▸ Activate...

Outline ×

⊞ com.indium.bankingapp.service
∨ ⊕ AccountServiceMySQLImpl
  ◦ DB_URL : String
  ◦ DB_USER : String
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  ◦ CREATE_ACCOUNT_SQL : String
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AccountServiceMySQLImpl.java ×

```java
 90    @Override
 91    public boolean updateAccount(int id, Account account) {
 92        try (Connection connection = DriverManager.getConnection(DB_URL, DB_USER, DB_PASS
 93             PreparedStatement preparedStatement = connection.prepareStatement(UPDATE_ACC
 94            preparedStatement.setString(1, account.getName());
 95            preparedStatement.setDouble(2, account.getBalance());
 96            preparedStatement.setDouble(3, account.getRoi());
 97            preparedStatement.setString(4, account.getAccountType());
 98            preparedStatement.setInt(5, id);
 99
100            int rowsAffected = preparedStatement.executeUpdate();
101            return rowsAffected > 0;
102        } catch (SQLException e) {
103            e.printStackTrace();
104            return false;
105        }
106    }
107
108    @Override
109    public boolean deleteAccount(int id) {
110        try (Connection connection = DriverManager.getConnection(DB_URL, DB_USER, DB_PASS
111             PreparedStatement preparedStatement = connection.prepareStatement(DELETE_ACC
112            preparedStatement.setInt(1, id);
113
114            int rowsAffected = preparedStatement.executeUpdate();
115            return rowsAffected > 0;
116        } catch (SQLException e) {
117            e.printStackTrace();
118            return false;
119        }
120    }
121 }
```

Task List ×

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- AccountServiceMySQLImpl
  - DB_URL : String
  - DB_USER : String
  - DB_PASSWORD : String
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