

1. Missing Database Driver:

If we forget to include the database driver in project dependencies. Ensure the correct driver is included.

```
// 20241004125313
// http://localhost:8084/webUser/getAll

{
  "dbError": "Problem getting driver:com.mysql.cj.jdbc.Driver",
  "webUserList": [

  ]
}
```

2. Database Unreachable :

If we don't tunnel and try to access database then we get such errors. Tunnel before accessing database.

```
// 20241004135224
// http://localhost:8084/webUser/getAll

{
  "dbError": "Problem getting connection:Communications link failure\n\nThe last packet sent successfully to the server was 0 milliseconds ago. The driver has not received any packets from the server.",
  "webUserList": [

  ]
}
```

3. Database Not Authorized

By adding invalid username or password of our database. Ensure to add correct username and password.

```
// 20241004135553
// http://localhost:8084/webUser/getAll

{
  "dbError": "Problem getting connection:Access denied for user 'abc236'@'129.32.95.123' (using password: YES)",
  "webUserList": [

  ]
}
```

4. Syntax error in SQL Statement

Writing wrong SQL syntax can cause an error too. Ensure to have right syntax to fix it.

```
// 20241004140541
// http://localhost:8084/webUser/getAll

{
  "dbError": "",
  "webUserList": [
    {
      "webUserId": "",
      "userEmail": "",
      "userPassword": "",
      "userImage": "",
      "birthday": "",
      "membershipFee": "",
      "userRoleId": "",
      "userRoleType": "",
      "errorMsg": "Exception thrown in WebUserView.getAllUsers(): You have an error in your SQL syntax; check the manual that corresponds to your MariaDB server version for the right syntax to use near 'web_user, user_role where web_user.user_role_id = user_role.user_role_id ORDE...' at line 1"
    }
  ]
}
```

5. Error Extracting Data from Result Set (bad column name)

Having typos in extracting data can cause error too. Ensure to have correct SQL SELECT statement.

```
// 20241004140701
// http://localhost:8084/webUser/getAll

{
  "dbError": "",
  "webUserList": [
    {
      "webUserId": "",
      "userEmail": "",
      "userPassword": "",
      "userImage": "",
      "birthday": "",
      "membershipFee": "",
      "userRoleId": "",
      "userRoleType": "",
      "errorMsg": "Exception thrown in WebUserView.getAllUsers(): Unknown column 'user_img' in 'field list'"
    }
  ]
}
```

6. Error Extracting Data from Result Set (wrong data type)

Using a method that doesn't match the column's data type (e.g., `fmtInteger()` for a date column). To fix this use the appropriate method based on the column's data type (e.g., `Format.formatDate` for date columns).

```
// 20241004140810
// http://localhost:8084/webUser/getAll

{
  "dbError": "",
  "webUserList": [
    {
      "webUserId": "1",
      "userEmail": "tur08@temple.edu",
      "userPassword": "1234",
      "userImage": "https://as1.ftcdn.net/v2/img/02/43/12/34/1000_F_243123463_zTooub557xFWABDLk0jJk1DyLSG12jrr.jpg",
      "birthday": "bad Integer in FormatUtils:2000-09-03. Error:class java.sql.Date cannot be cast to class java.lang.Integer
(java.sql.Date is in module java.sql of loader 'platform'; java.lang.Integer is in module java.base of loader 'bootstrap')",
      "membershipFee": "",
      "userRoleId": "2",
      "userRoleType": "MEMBER",
      "errorMsg": ""
    }
  ],
}
```