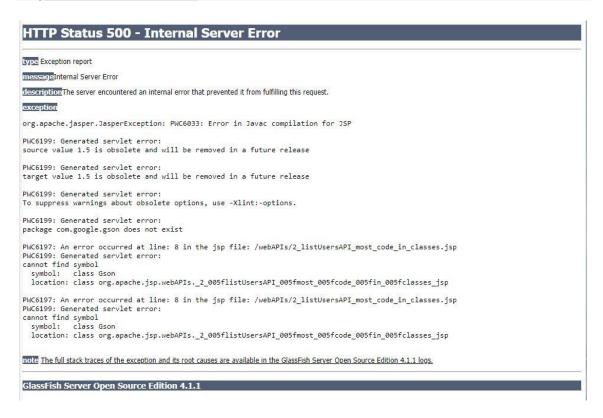# 3344 Web API Homework

1. Missing Database Driver

- To simulate this error, remove the mysql driver (Right click on the Jar file and select "remove")

- To fix this error, add reference of two jar files (gson-2.6.2.jar, mysql-connector-java-5.1.14-bin.jar)

2. Database Unreachable

- To simulate this error, not tunneled in. If we are not tunneled in (or our PC/MAC is unable to connect to cis-linux2's MySql database management system for any reason)

- To fix this error, tunneled in

```
{
    dbError: "Problem getting connection:Communications link failure The 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

- To simulate this error, change something in our connect string (perhaps incorrect database name, or username or password)

For example: String dbAndPass = "SP20_3344_tuk85873?user=tuk85873&password=123456";

- To fix this error, correct database name, or username or username or password

```
{
    dbError: "Problem getting connection:Access denied for user 'tuk85873'@'cis-linux2-priv.temple.edu' (using password: YES)",
    webUserList: [ ]
}
```

4. Syntax error in SQL Statement

- To simulate this error, change something in our sql statement (perhaps misspell a keyword or table name or column name)

For example: String sql="SELECT web_user_id, user_email, user_password, membership_fee, birthday FROM webUser ORDER BY web_user_id";

- To fix this error, correct the table name in our sql statement

```
{
    dbError: "",
  - webUserList: [
      - {
            webUserId: "",
            userEmail: "",
            userPassword: "",
            birthday: "",
            membershipFee: "",
            errorMsg: "Exception thrown in WebUserView.allUsersAPI(): Table 'SP20_3344_tuk85873.webuser' doesn't exist"
        }
    ]
}
```

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

- To simulate this error, misspell a column name in the constructor of the StringData class

For example: this.webUserId = FormatUtils.formatInteger(results.getObject("webuserid"));

- To fix this error, correct the misspelled column name

```
{
    dbError: "",
  - webUserList: [
      - {
            webUserId: "",
            userEmail: "",
            userPassword: "",
            birthday: "",
            membershipFee: "",
            errorMsg: "Exception thrown in model.webUser.StringData (the constructor that takes a ResultSet): Column 'webuserid' not found."
        },
      - {
            webUserId: "",
            userEmail: "",
            userPassword: "",
            birthday: "",
            membershipFee: "",
            errorMsg: "Exception thrown in model.webUser.StringData (the constructor that takes a ResultSet): Column 'webuserid' not found."
        },
      - {
            webUserId: "",
            userEmail: "",
            userPassword: "",
            birthday: "",
            membershipFee: "",
            errorMsg: "Exception thrown in model.webUser.StringData (the constructor that takes a ResultSet): Column 'webuserid' not found."
        },
      - {
```

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

- To simulate this error, convert data of one type using the wrong data type for formatting method

For example: this.birthday = FormatUtils.formatString(results.getObject("birthday"));

- To fix this error, correct the format data type

```
{
    dbError: "",
  - webUserList: [
      - {
            webUserId: "1",
            userEmail: "tuk85873@temple.edu",
            userPassword: "test123!",
            birthday: "",
            membershipFee: "",
            errorMsg: ""
        },
      - {
            webUserId: "2",
            userEmail: "cindytran311@gmail.com",
            userPassword: "abc456!",
            birthday: "",
            membershipFee: "",
            errorMsg: "Exception thrown in model.webUser.StringData (the constructor that takes a ResultSet): java.sql.Date cannot
            be cast to java.lang.String"
        },
      - {
            webUserId: "3",
            userEmail: "htran@yahoo.com",
            userPassword: "123abc@",
            birthday: "",
            membershipFee: "",
            errorMsg: "Exception thrown in model.webUser.StringData (the constructor that takes a ResultSet): java.sql.Date cannot
            be cast to java.lang.String"
        },
      - {
```