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HW05 Web APIs
Database Errors Document

1. Missing Database Driver
   - The required driver for the database is not included in the project's dependencies or not properly loaded at runtime.
   - To fix: Ensure that the correct driver is added to the project's dependencies.
     (in Maven) include the correct dependency in pom.xml
2. Database Unreachable
   - The database server is down, or there is a network issue between the application and the database server.
   - To fix: Correct database URL in the connection string. Contact the administrator if the database server is down.
3. Database Not Authorized
   - The provided database credentials (username and/or password) are incorrect, or user lacks the required permissions to access the database or perform an operation.
   - To fix: Verify the credentials are correct in project code; grant appropriate privileges to the database user.
4. Syntax error in SQL Statement
   - The SQL statement contains a syntax error, such as a missing semicolon or misspelled keyword.
   - To fix: Double-check the SQL syntax and ensure it follows the database's SQL standards; use parameterized queries to avoid errors.
5. Error Extracting Data from Result Set (bad column name)
   - The column name used in the result set does not exist in the result set returned by the query.
   - To fix: Verify the column name matches the database schema exactly.
6. Error Extracting Data from Result Set (wrong data type)
   - Attempting to extract a column value using the wrong data type method (e.g., trying to get an int from a string column).
   - Ensure the method used to extract the value matches the column's data type.