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| --- | --- | --- | --- | --- | --- |
| **SL No** | **Test Data File** | **Error** | **Fails** | **Total Tests** | **Remark/ Error** |
| 1 | 3D | 9 |  | 10 | java.lang.RuntimeException: java.io.IOException: Error decoding WKB. |
| 2 | Aggregate Function | 0 | 0 | 16 | Works fine |
| 3 | Boolean | 0 | 0 | 2 | Works on adding a piece of code in GeoTools codebase for bytes support: gt-main/src/main/java/org/geotools /util/BooleanConvertorFactory.java |
| 4 | Connection Lifecycle | 0 | 2 | 2 | Works fine |
| 5 | Data Store API | 0 | 3 | 44 | **Failures:**  1. Test Case creates a table and counts the number of attributes. It creates 3 attributes but the count returns 6.  2. ReferenceEnvelopBounds of Road table mismatched.  3. ReferenceEnvelopBounds of Rivertable mismatched. |
| 6 | Data Store Factory | 0 | 1 | 1 | Works fine |
| 7 | Data Store | 0 | 1 | 14 | testCreateSchemaUTMCRS- Assertion Failed Error- Related to incorrect decoding of Coordinate Reference System from Hana. |
| 8 | Date | 0 | 0 | 4 | Works fine |
| 9 | Empty Geometry | 2 |  | 6 | **Errors:**  1. Empty points cannot be represented in WKB  2. Error inserting Polygons |
| 10 | Empty | 0 | 0 | 0 | Works fine |
| 11 | Feature Collection | 0 | 0 | 5 | Works fine |
| 12 | Feature Locking | 0 | 0 | 8 | Works fine |
| 13 | Feature Reader | 0 | 0 | 1 | Works fine |
| 14 | Feature Source Expose PK | 4 |  | 31 | **Errors-**  1. testGetFeatureWithOffset  2. testCaseInsensitiveFilter  3. testCountWithOffsetLimit  4. testGetFeaturesWIthOffsetLimit  **Failure-**  1. testGetFeatureWithMax |
| 15 | Feature Source | 3 |  | 14 | **Errors-**  1. testGetFeaturesWithOffset  2.testCountWithOffsetLimit  3. testGetFeaturesOffsetLimit  **Failure-**  1. testGetFeaturesWithMax |
| 16 | Feature Store Expose PK | 1 |  | 14 | java.lang.RuntimeException: org.apache.commons. dbcp.SQLNestedException: Borrow prepareStatement from pool failed |
| 17 | Feature Store | 0 | 1 | 14 | Works fine |
| 18 | Function | 0 | 0 | 20 | Works fine |
| 19 | Geography | 0 | 2 | 12 | junit.framework.AssertionFailedError: expected:<2> but was:<3> Bounding Box for the query *select "geo". ST\_AsText() from "GeoToolsTest"."geopoint" where "geo". ST\_Intersects(ST\_GeomFromText('POLYGON((-120 25, -100 25, -100 40, -120 40, -120 25))')) = 1;*  Returns 2 in Hana Studio and test expects 2. But the plugin returns 3. |
| 20 | Geometry | 0 | 8 | 9 | junit.framework.AssertionFailedError: expected:<class com.vividsolutions.jts.geom.LineString> but was:<class com.vividsolutions.jts.geom.Geometry>  Hana has all geometries like linestring, etc as a subclass of one single class geometry. But test case expects linestring for linestring and not linestring for geometry. |
| 21 | Group By Visitor | 16 |  | 16 | java.io.IOException: Schema 'buildings\_group\_by\_tests' does not exist. |
| 22 | JNDI Data Source | 2 |  | 2 | Null Pointer Exception- Doesn't fetch the parameter information. |
| 23 | Join | 3 |  | 15 | **Errors-**  1. testSimpleJoinWithFilterCount  2. testJoinMoreThanTwo  3. testSimpleJoinWithLimitOffset  **Failure-**  1.testOuterJoin  2. testSpatialJoin  3.testSimpleJoinWithFIlter |
| 24 | Lob | 4 |  | 4 | java.io.IOException: Schema 'testLobCreate' doesnt exist. |
| 25 | No Primary Key | 0 | 0 | 4 | Works fine |
| 26 | Primary Key Finder | 2 |  | 3 | java.io.IOException: Schema 'assignedmultipk' does not exist. The error seems to be misleading. The testcase expects the db metadata to have list of views in list of tables. Hana returns only tables. |
| 27 | Primary Key | 7 |  | 8 | DataStore is Null |
| 28 | Skip Column | 0 | 1 | 3 | junit.framework.AssertionFailedError: expected:<name> but was:<weirdproperty> |
| 29 | Spatial Filters | 11 | 11 | 11 | Spatial Filters not detected. Need to look into the FilterToSQL Plugin code probably. This part of the code is yet to be reviewed. |
| 30 | Temporal Filter | 0 | 12 | 12 | Works fine |
| 31 | Test Setup | 0 | 0 | 16 | Works fine |
| 32 | Three Valued Logic | 4 |  | 4 | java.io.IOException: Schema 'abc' doesn’t exist. |
| 33 | Time zone CET Date | 0 | 0 | 1 | Works fine |
| 34 | Time zone GMT Minus 14 Date | 0 | 0 | 1 | Works fine |
| 35 | Time zone GMT Plus 12 Date | 0 | 0 | 1 | Works fine |
| 36 | Transactions | 3 |  | 4 | 1. testConcurrentTransaction- Error Inserting Features  2. testNoCommit- java.lang.NullPointerException: while trying to invoke the method org.geotools.jdbc. JDBCDataStore.getFeatureWriterAppend  3. testCommit- same as above |
| 37 | Type Names | 1 |  | 1 | The testcase expects the database metadata to have list of views in list of tables. Hana returns only list of tables. |
| 38 | View | 4 |  | 5 | java.io.IOException: Schema 'lakesview' does not exist. The error is misleading. The testcase expects the database metadata to have list of views in list of tables. Hana returns only list of tables. |

**Total** Test Cases: 341  
**Errors** in running Test Cases: 96  
**Failed** Test Cases: 29

Apart from the 38 test files above, 7 more files are written for PostGIS, but didn’t write them for Hana:   
CiText, Curves, FilteToSQL, ngdATAsTORE, NGCreateDatabase, UDT, Uuid

<https://github.com/geotools/geotools/tree/master/modules/plugin/jdbc/jdbc-postgis/src/test/java/org/geotools/data/postgis>

**Hana Plugin Code Files:**

HanaDataStoreFactory.java- Reviewed and changes made.  
HanaDialect.java- Reviewed and changes made.  
HanaFilterToSQL- Yet to be reviewed.  
HanaJNDIDataStoreFactory- Reviewed and changes made.