**SQL Insert Data Structure**

**1. Table Class**

|  |  |  |
| --- | --- | --- |
| **Instance Variable** | **Data Type** | **Use** |
| Name | String | Table Name |

**2. Column Class**

|  |  |  |
| --- | --- | --- |
| **Instance Variable** | **Data Type** | **Use** |
| Name | String | Column Name |
| Type | Integer | Column Database Type |
| Name In Query | String | Name Considered In Query |

| **Method** | **Parameters/Return** | **Use** |
| --- | --- | --- |
| plusYear | Value: Integer | Increment Year of Date  /Timestamp |
| minusYear | Value: Integer | decrement Year of Date  /Timestamp |
| plusMonth | Value: Integer | Increment Month of Date  /Timestamp |
| minusMonth | Value: Integer | decrement Month of Date  /Timestamp |
| plusDay | Value: Integer | Increment Day of Date  /Timestamp |
| minusDay | Value: Integer | decrement Day of Date  /Timestamp |
| plusHour | Value: Integer | Increment Hour of  Timestamp/Time |
| minusHour | Value: Integer | decrement Hour of  Timestamp/Time |
| plusMinute | Value: Integer | Increment Minute of  Timestamp/Time |
| minusMinute | Value: Integer | decrement Minute of  Timestamp/Time |

**3. Query Class**

|  |  |  |
| --- | --- | --- |
| **Instance Variable** | **Data Type** | **Use** |
| Current Date | Column | Date Column with name CURRENT\_DATE |
| Current Timestamp | Column | Timestamp Column with name CURRENT\_TIMESTAMP |
| Current Time | Column | Time Column with name CURRENT\_TIME |
| Table | Table | Table in insert into clause |
| Columns | List<Column> | Columns in insert into clause for insert from select |
| Values | Map<Column, Object> | Column/Value Mapping for insert into and values clauses |

| **Method** | **Parameters/Return** | **Use** |
| --- | --- | --- |
| InsertInto | Table: Table | Save Insert Table |
| values | Column: Column  Value: Column | Insert some column as value for inserted column |
| values | Column: Column  Value: Object | Inserted if value is not null and not empty and not zero |
| valuesNull | Column: Column  Value: Object | Insert value with null if it is null or empty or zero else keep same value |
| valuesZero | Column: Column  Value: Object | Insert value with 0 if it is null or empty or zero else keep same value |
| valuesExact | Column: Column  Value: Object | Insert value as it is |
| InsertInto | Table: Table  Columns: Variable Column Array | Save Insert Table and Columns of Insert from Select |
| from | Query: Query | Select Query for insert |
| executeInsert | Return generated ID | Construct Insert Query and Send Parameters and Read Generated ID |