

# SchemaAnalyst Test Visualisation Tool

## User Guide

### Installation Instructions

In order to install the test visualisation tool, you must first download the latest version of SchemaAnalyst from GitHub. This can be done in one of the two following ways:

- You can clone the following Git repository:
  - <https://github.com/schemaanalyst/schemaanalyst.git>
- Or you can download the software as a .ZIP file from the GitHub repository page for SchemaAnalyst at the following location:
  - <https://github.com/schemaanalyst/schemaanalyst>

Now that we have SchemaAnalyst downloaded, please navigate to the root folder. From now on, this root folder will be referred to as 'schemaanalyst\'.

The Visualisation Tool install files consist of the 'Visualise' folder, and the following files - 'Go.java', 'GenerationCommand.java' and 'UserGuide.pdf'. They need to be placed in their corresponding locations.

Item	Location
Visualise (folder)	schemaanalyst/src/main/java/org/schemaanalyst
Go.java	schemaanalyst/src/main/java/org/schemaanalyst/util
GenerationCommand.java	schemaanalyst/src/main/java/org/schemaanalyst/util
UserGuide.pdf	schemaanalyst/

Next, the Gradle wrapper needs to be set to use version 2.9, as issues were experienced when using the updated 4.10.2. This can be done using the following command.

- `./gradlew wrapper --gradle-version 2.9`

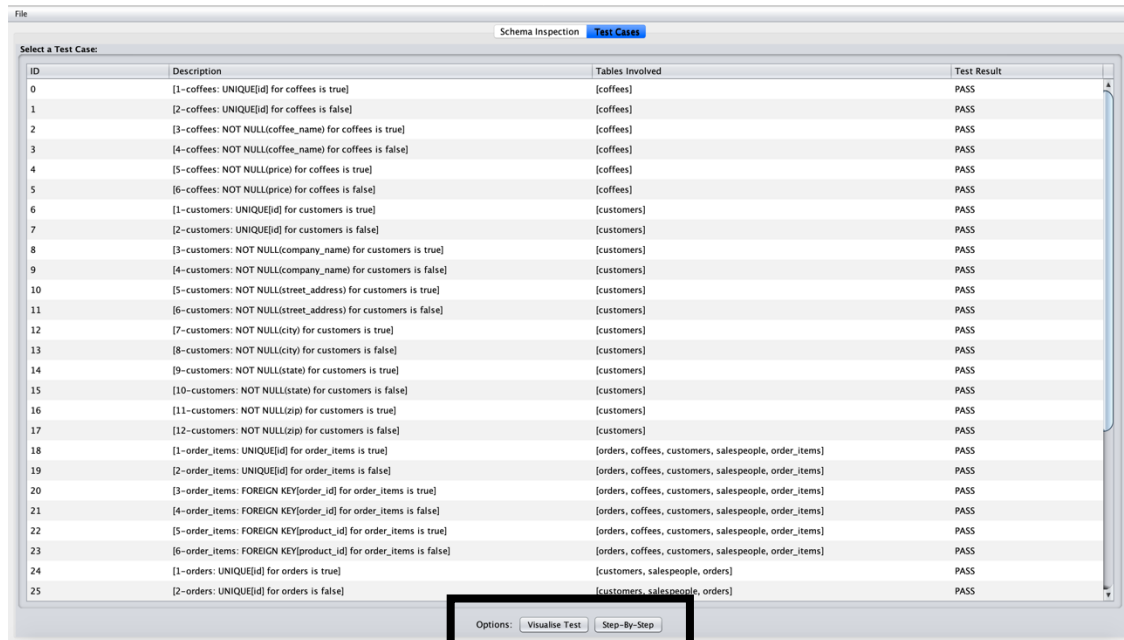
Once these items have been placed in their correct locations, SchemaAnalyst can be compiled in the normal manner.

- The CLASSPATH environment variable needs to be set with the following terminal command.
  - `export CLASSPATH="build/classes/main:lib/*:build/lib/*:."`
- SchemaAnalyst can now be compiled using the following command.
  - `./gradlew compile`
- SchemaAnalyst can now be executed in generation mode as normal, but with the command-line argument '-v' or '-visualise' to execute the visualisation tool.

## How to use the Visualisation Tool

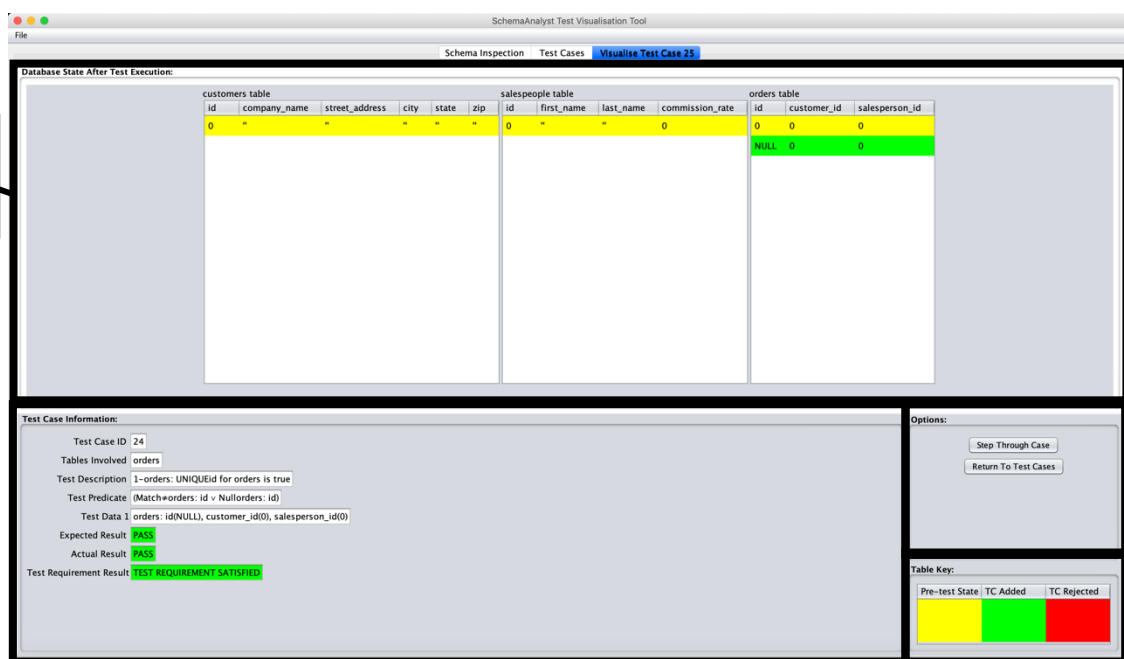
### The Main Menu

On tool execution you will be presented with the list of generated tests. You will have the option to select a test from the list and execute either a visualisation or the test case stepper. The menu options have been highlighted



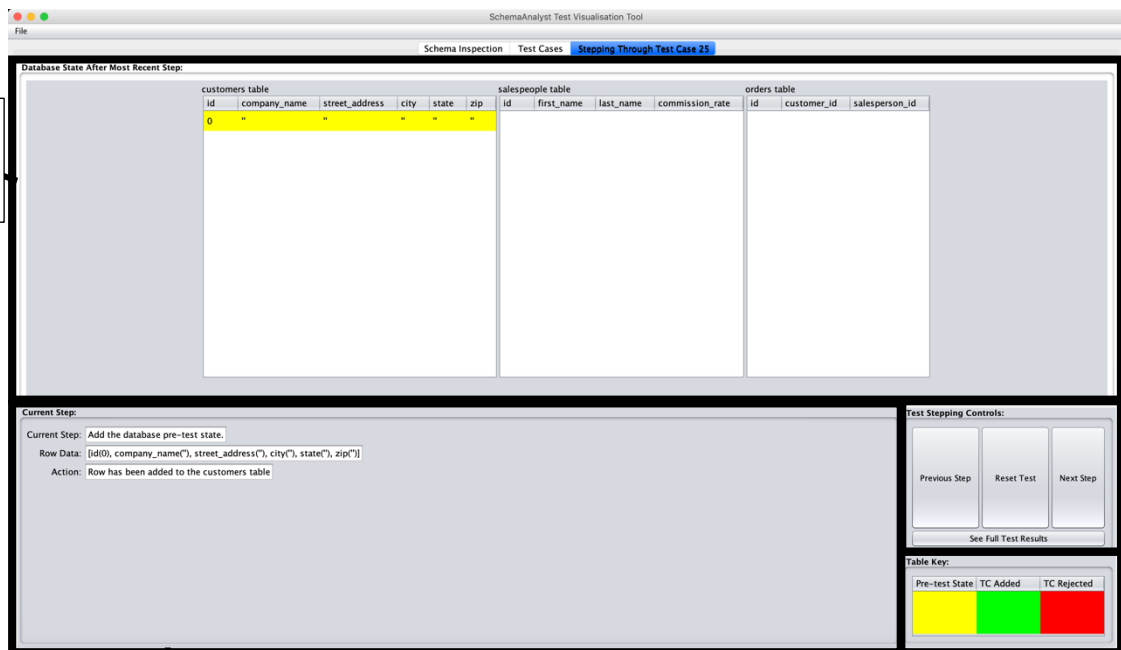
### The Visualisation Screen

On selection a visualisation the user will be taken to the following page, the contain items have been labelled. From here a user can return to the main menu using the tabs at the top or the options menu on the right, where the user can also choose to step the chosen case.



### The Test Case Stepping Screen

If the user chooses to step through a test case they will be presented with the following screen. A user has the option to step the test case using the on-screen controls, return to the visualisation screen or navigate back to the main menu using the tabs at the top.



The database state at the current step

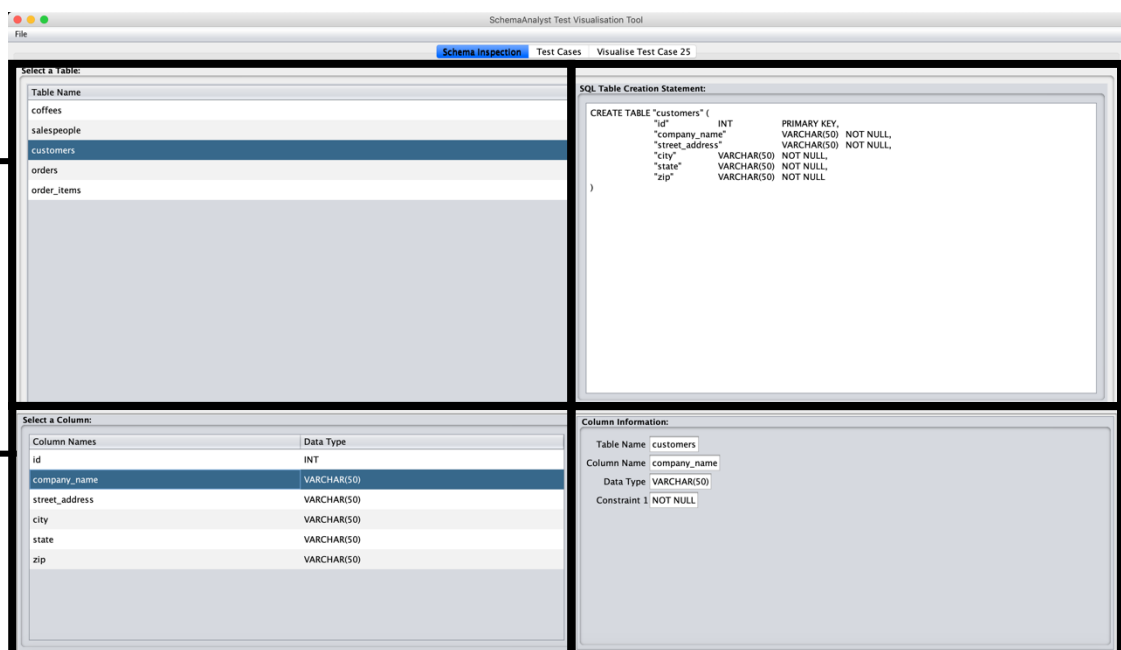
Options to adjust the current step or return to the visualisation screen.

Information about the current execution step

The colour key to explain the coloured highlighting in the test case tables.

### The Schema Inspection Screen

The final screen available to the user allows for the inspection of the schema that was used as an input. The schema is broken down into tables and columns. The SQL table creation script is available for inspection, and the user can see individual column information broken down in the bottom-right region.



A list of available tables in the supplied schema.

The SQL creation script for the selected table.

The list of available columns in the selected table.

Information about the chosen column.