Relational Algebra Calculator Instructions

In this assignment, you will use an online relational algebra calculator (http://138.232.66.66/ra/calc.htm) called RelaX that allows you to enter a relational algebra query expression or a SQL query and see the result. We have prepared some easily loaded sample data for you. All you will need to do is to type your relational algebra expressions and check the results. Here's how to use the site with our sample data.

1. Open a Web browser and visit http://138.232.66.66/ra/calc.htm.

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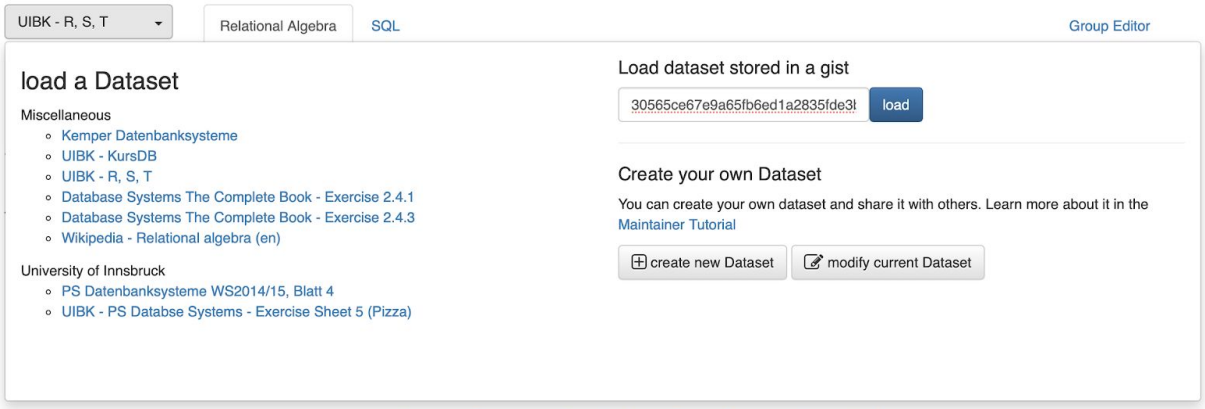
2. Click the "UIBK - R,S,T" button. In the "gist ID" box, type 19579938d8717b2ad54ec8d33ab31b76 and click the "Load" button. Note: All of the data turns out to be loaded on the browser side of this system, which means that you will have to reload the data when you refresh or reopen this page (i.e., whenever you start a new session to work on the HW). It loads in an instant, so this should be very livable.



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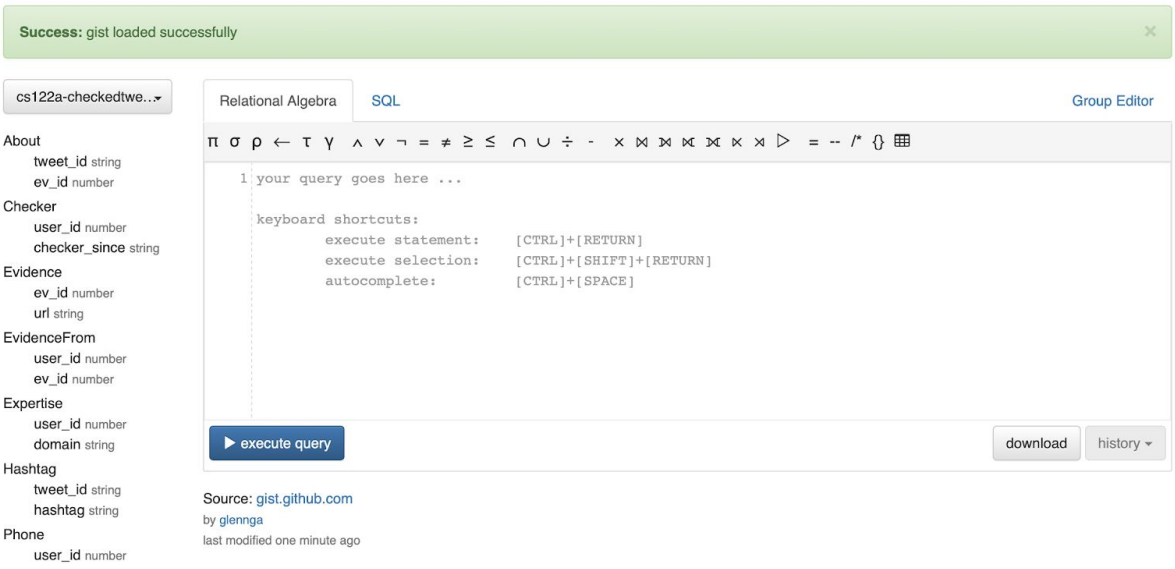
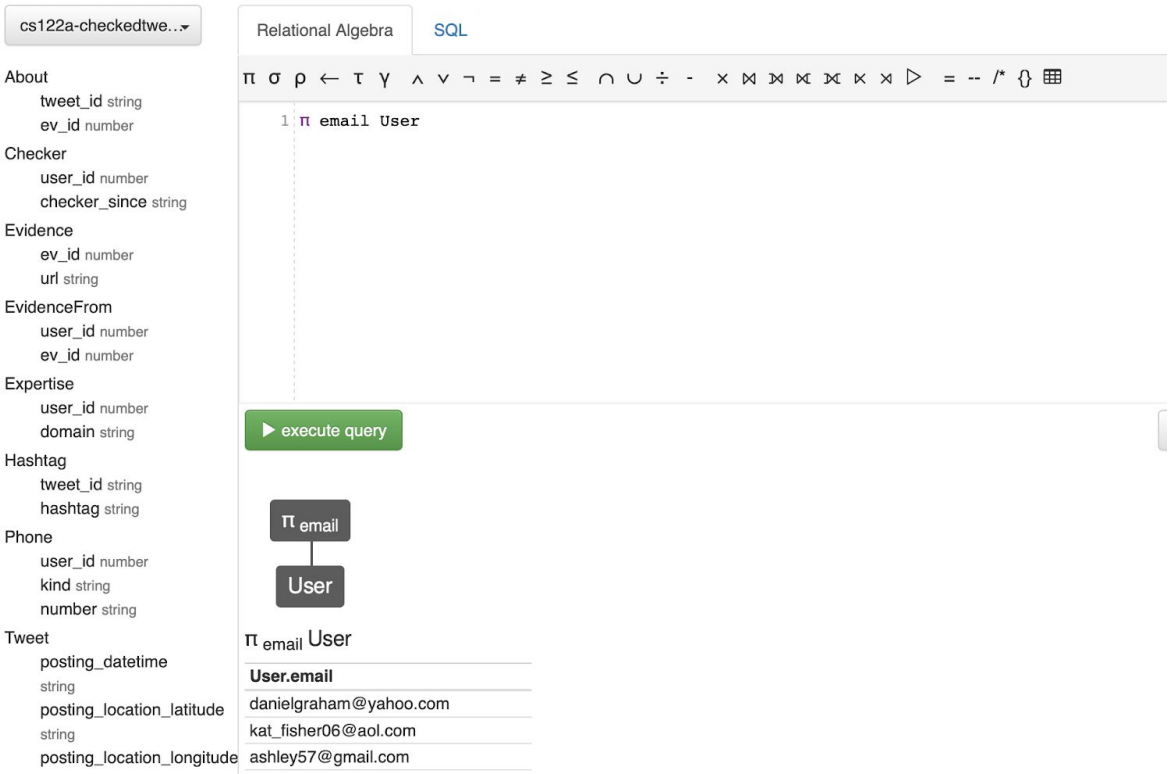
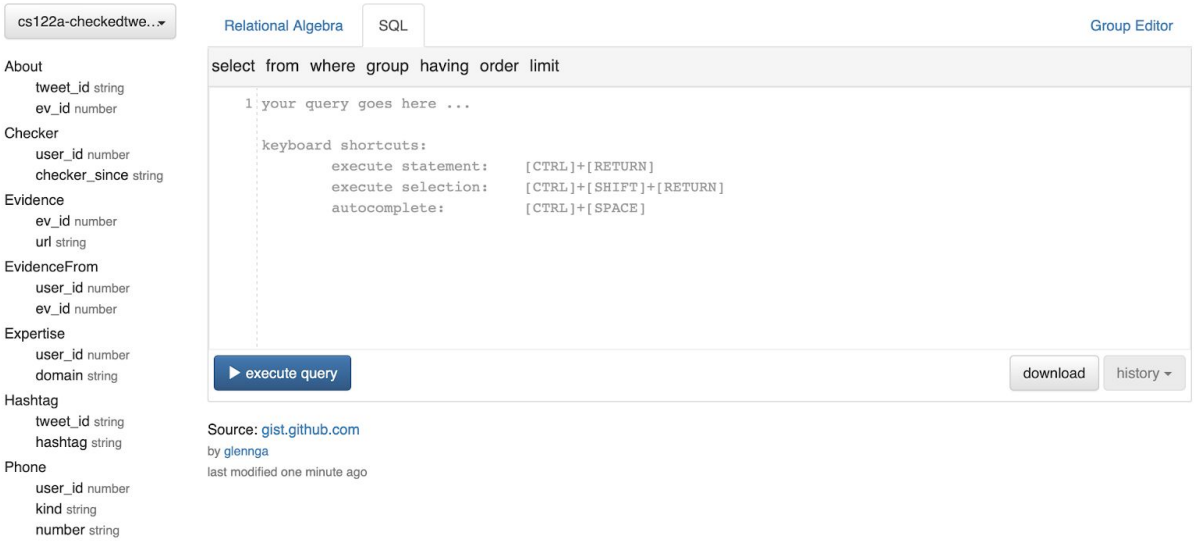
3. You should see the "Success" message. Now the CheckedTweets relations have been loaded into your browser. You can execute a relational algebra expression by typing one into the right pane of the interface.



4. In the following example, we will use the projection (π) operator to display the "**email**" field of the relation "**User**". After typing this relational algebra expression, click "> Execute query" and you will see the result along with a tree representation of the query. (Note: Hovering an algebra operator at the top of the query UI will show you its syntax, and if you click on "**Help**" in the upper right corner of the UI it will take you to the online reference manual.)



5. If you would like to try SQL as well, you can click the 'SQL' tab to change to SQL query mode.



6. For more details on syntax, click the "**Help**" button or visit http://138.232.66.66/ra/help.htm. And FYI, for renaming attributes, RelaX includes support for renaming in projection, so you don't need to use the much uglier separate renaming operator. (For example, try typing " π email -> eaddr User".)