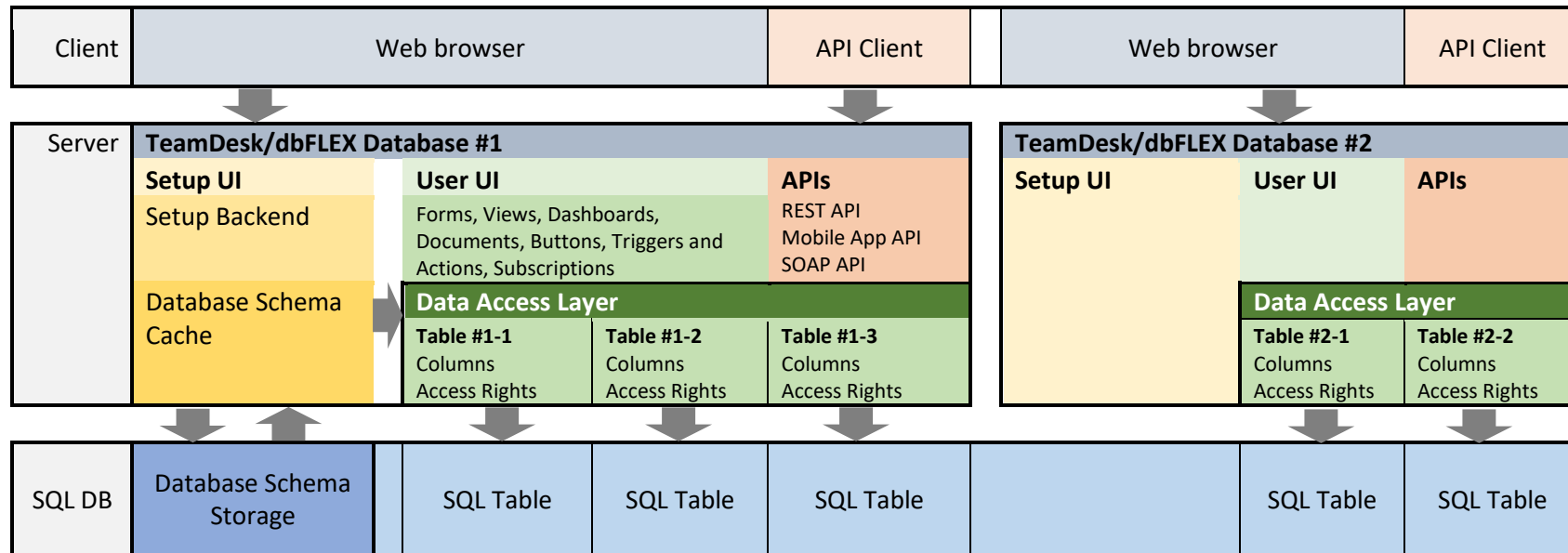


TeamDesk/dbFLEX Architecture



TeamDesk/dbFLEX database provides a logical view of SQL database. Multiple customers' databases may share a global SQL database. Each "table" in TeamDesk/dbFLEX database corresponds to a particular table in SQL database, ensuring that multiple customers' data is not intermixed within the same table boundary. A key component responsible for data isolation is 'Data Access Layer' (DAL). DAL is the only component that has direct access to the database.

Assume that TeamDesk/dbFLEX got a request to display the view. The view belongs to a table, which consists of columns to display, and the filter. The page responsible for displaying the view passes the request to DAL. Based on TeamDesk/dbFLEX database definition (metadata) DAL checks whether the table belongs to the database and whether a current user has enough access rights to view the records from the table. In addition to that, individual columns' access rights are verified. If any column is not accessible, the request is either rejected completely (for example view's filter column which is inaccessible to a user) or removed from results (if it's a column to be displayed). If all verifications are passed, DAL builds and executes an SQL query to retrieve the data and the results are passed back to a requestor.