Helping students understand complex topics such as how a database query such as "Find the names of instructors in the Computer Science department" is dynamically resolved by database management system (DBMS) software is quite difficult. We have developed a software system that allows a student to visually walk through any query of an accessible database managed by the commercial Oracle DBMS. We still use text to describe components and steps, but focus on providing visual cues that assist the student in seeing what computer memory, hard disk, and overall components are involved in each step of the process.