1. The Elmasri book states (page 5) that the Amazon.com database is roughly 2 terabytes. This would require about four 500-GB disks. This data is stored on 200 servers, even though only one server would logically be necessary. The hundreds of servers are needed to allow parallelism in accessing this information (since most of it is very stable).

2. Many answers are possible. Here is one: the flight controller on a

fly-by-wire airplane has to make decisions on a millisecond basis, and so

demands real-time response, which commercial databases cannot guarantee,

even if all the information is in main memory.

3. Examples:

\* A customer ID is being compared to a tape number. (To a file system, these values are both integers.)

\* This referential integrity constraint is violated. (File systems

do not check for dangling pointers.)

\* This primary key value already exists in the database. (File systems don't check for unique values of fields.)