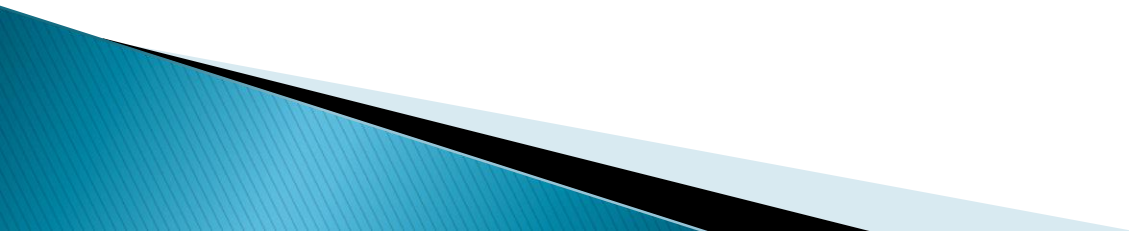


Database Environment, Chapter 2



Three-Level Architecture

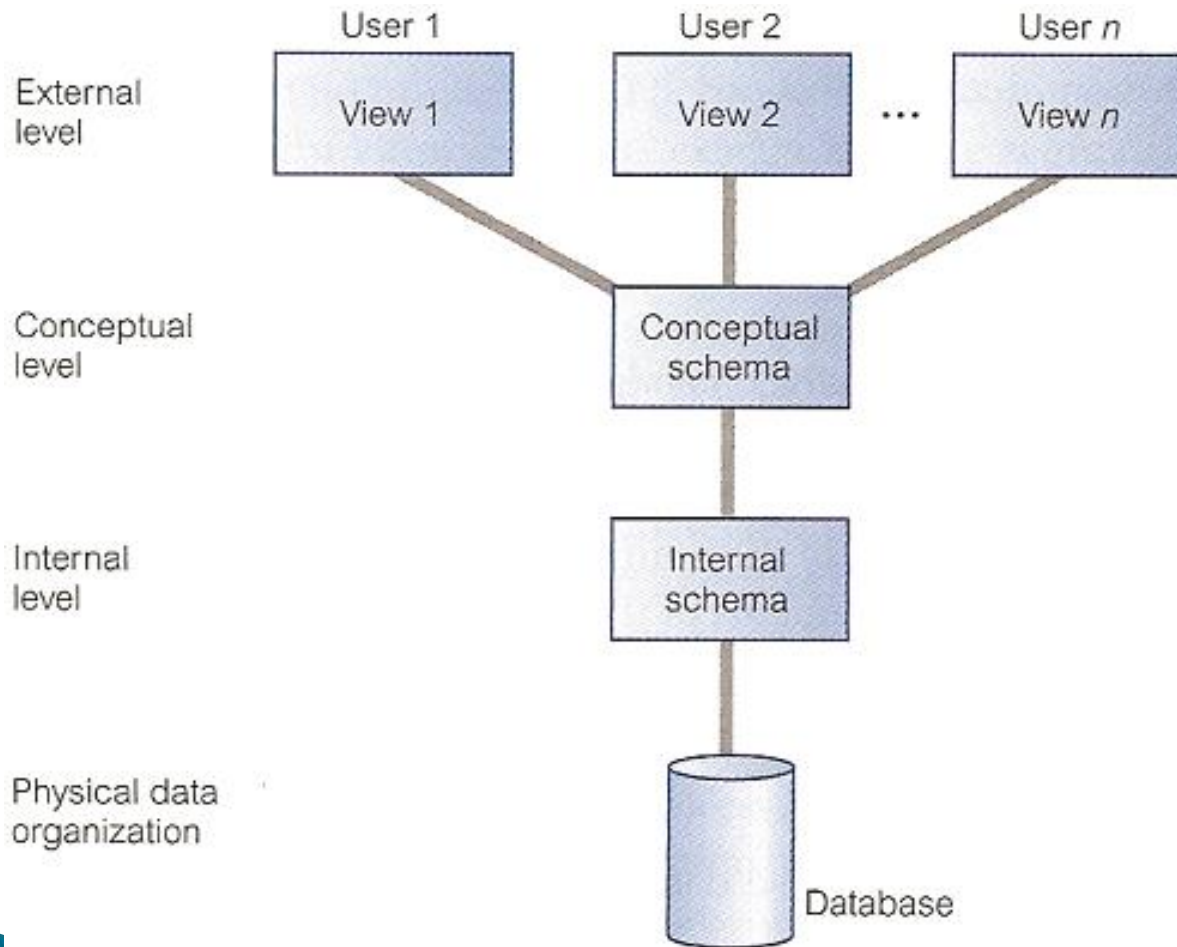


Figure 2.1
The ANSI-
SPARC three-
level architecture.

Schemas

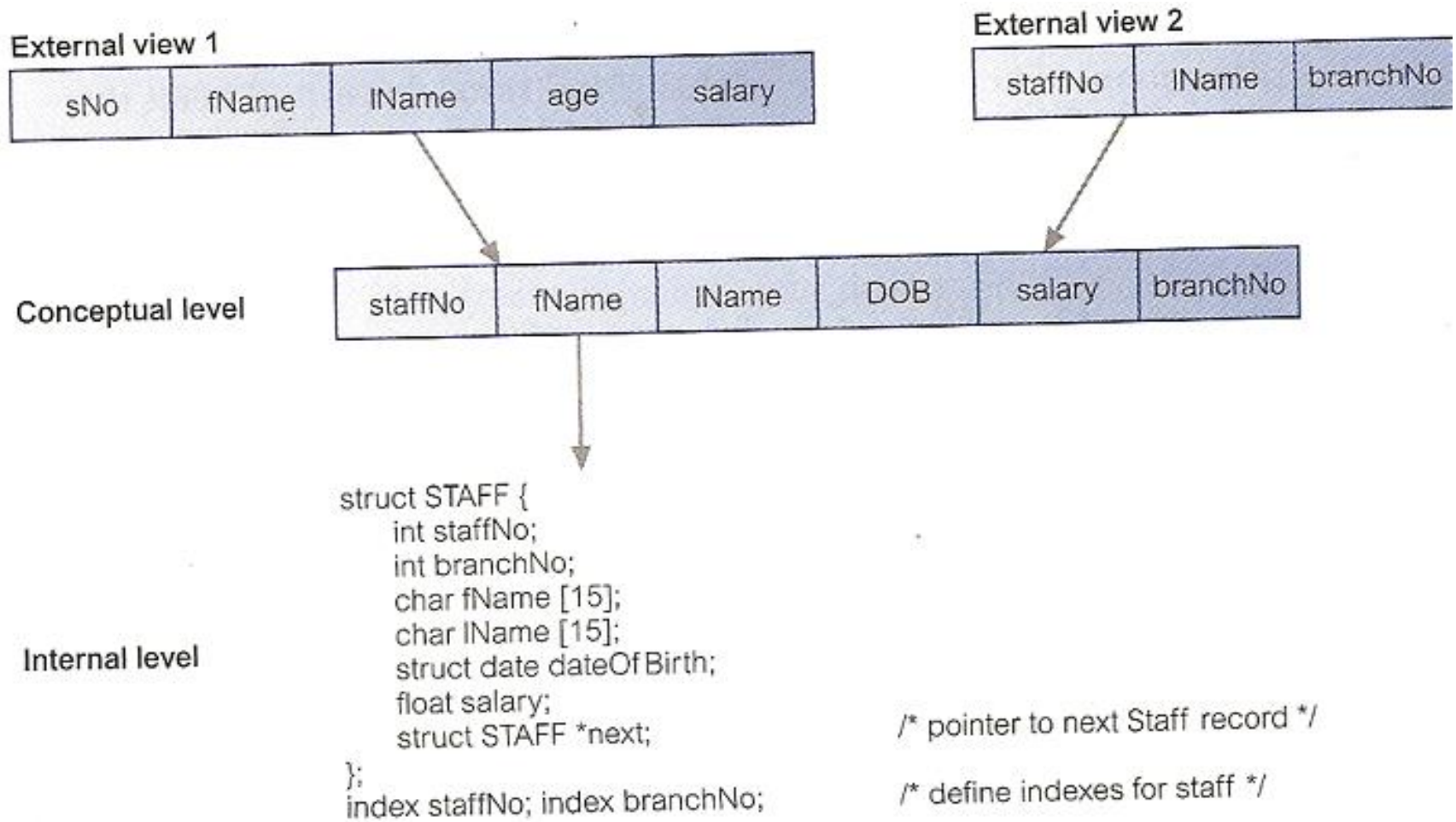


Figure 2.2 Differences between the three levels.

Data Independence

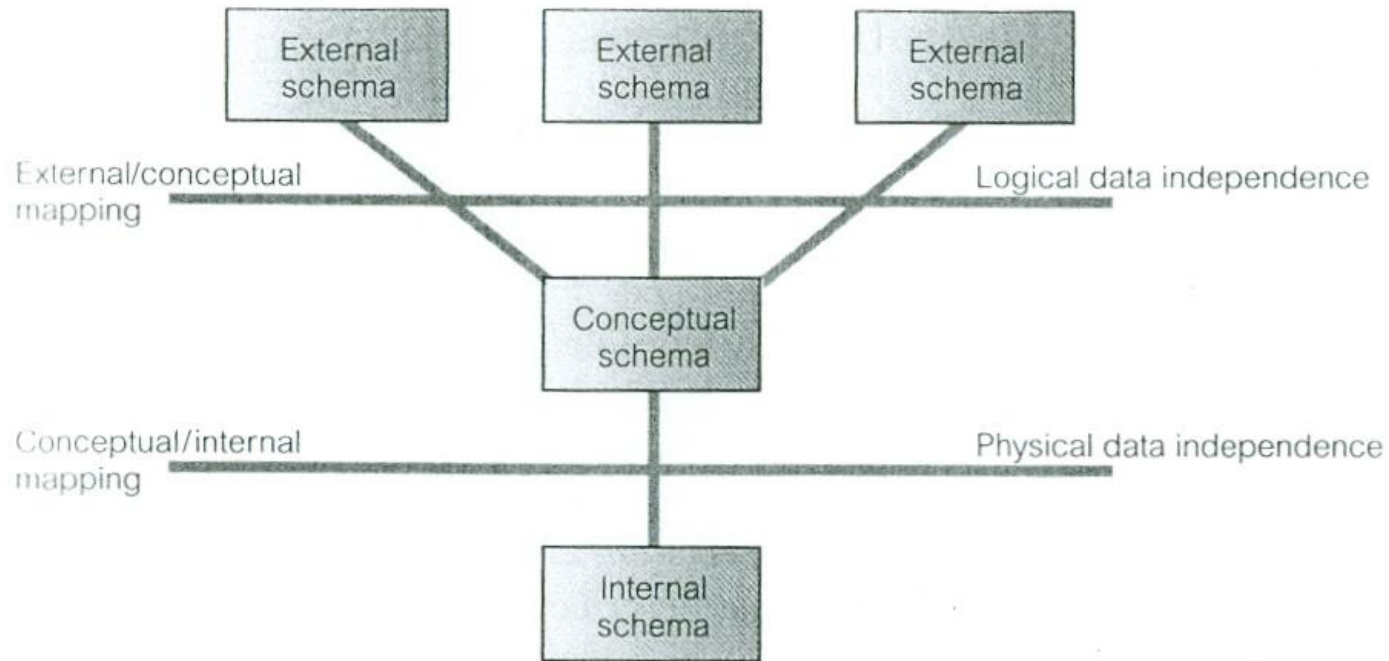


Figure 2.3
Data independence and the ANSI-SPARC three-level architecture.

Services of DBMS

Services typically provided by a DBMS:

1. Data storage, retrieval and update
 2. User-accessible catalog
 3. Transaction support
 4. Concurrency control
 5. Recovery
 6. Authorization
 7. Support for data communications
 8. Integrity
 9. Data independence
 10. Utilities – importing, monitoring
- 