Explain Three levels Architecture of DBMS

- It’s also known as ANSI SPARC Structure.
- (ANSI) American national Standard Institute.
- (SPARC) System planning and require committee.

  - DBMS is collection of co-related files and setup programs which are access and modify by several user.
  - There kinds of files which are handle by system, high certain things or details of how the data is stored and maintain in DBMS.

- There are three level of Architecture of DBMS:-

1) External level (View level)
2) Conceptual level (Logical level)
3) Internal level (Physical level)

❖ <u>External level:-</u>

- External level has another name like logical view or individual user view.

- Application programs or end user or access the database with the help of application program and query languages.
- It provides powerful and flexible security structure to hide parts of database from user external level includes those data, attribute and interested by user.
- This is highest level abstraction hide describe “Where” only a part of entire database.
- Example:-

Name	(10)
Phone no	(10)
Address	(20)
Birth date	(08)

❖ Conceptual Level:-

- Conceptual level has another name like community user or global level.
- Conceptual level is logical structure of the enter database in “seen” by DBA.
- It provides community view of database and provide complete view of data requirement by database.
- It support external level or direct data which are already in conceptual level.
- Example:-

Name	character (10)
Phone no	number(10)
Address	character(20)
Birth date	number(08)

❖ Internal Level:-

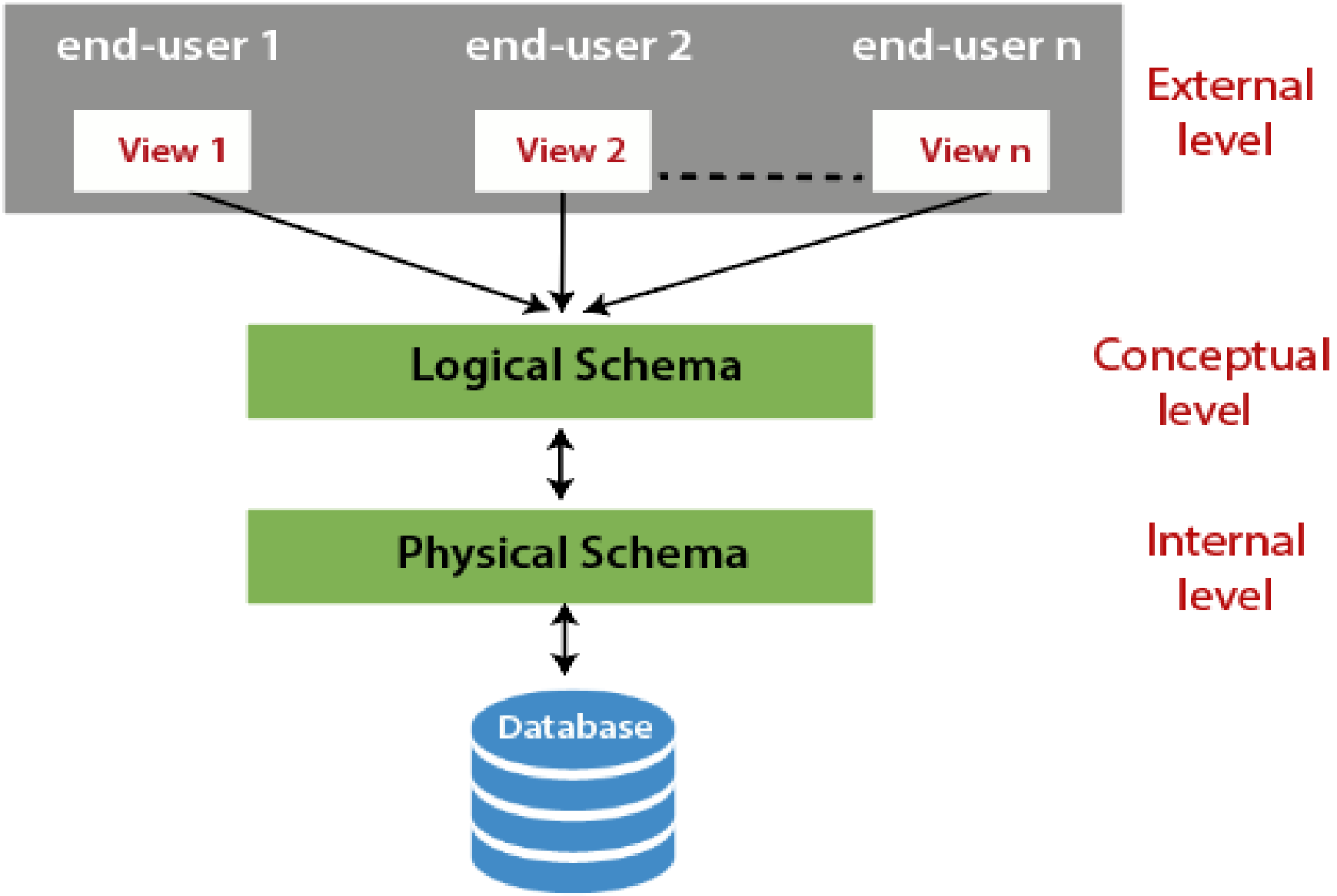
- Internal level has another name like physical level or storage view.
- It is the process of physical representation of data which also represent “How” the stored in the database.
- It is independent n hardware.
- Example:-

  Name: Character length of 0 up to 10

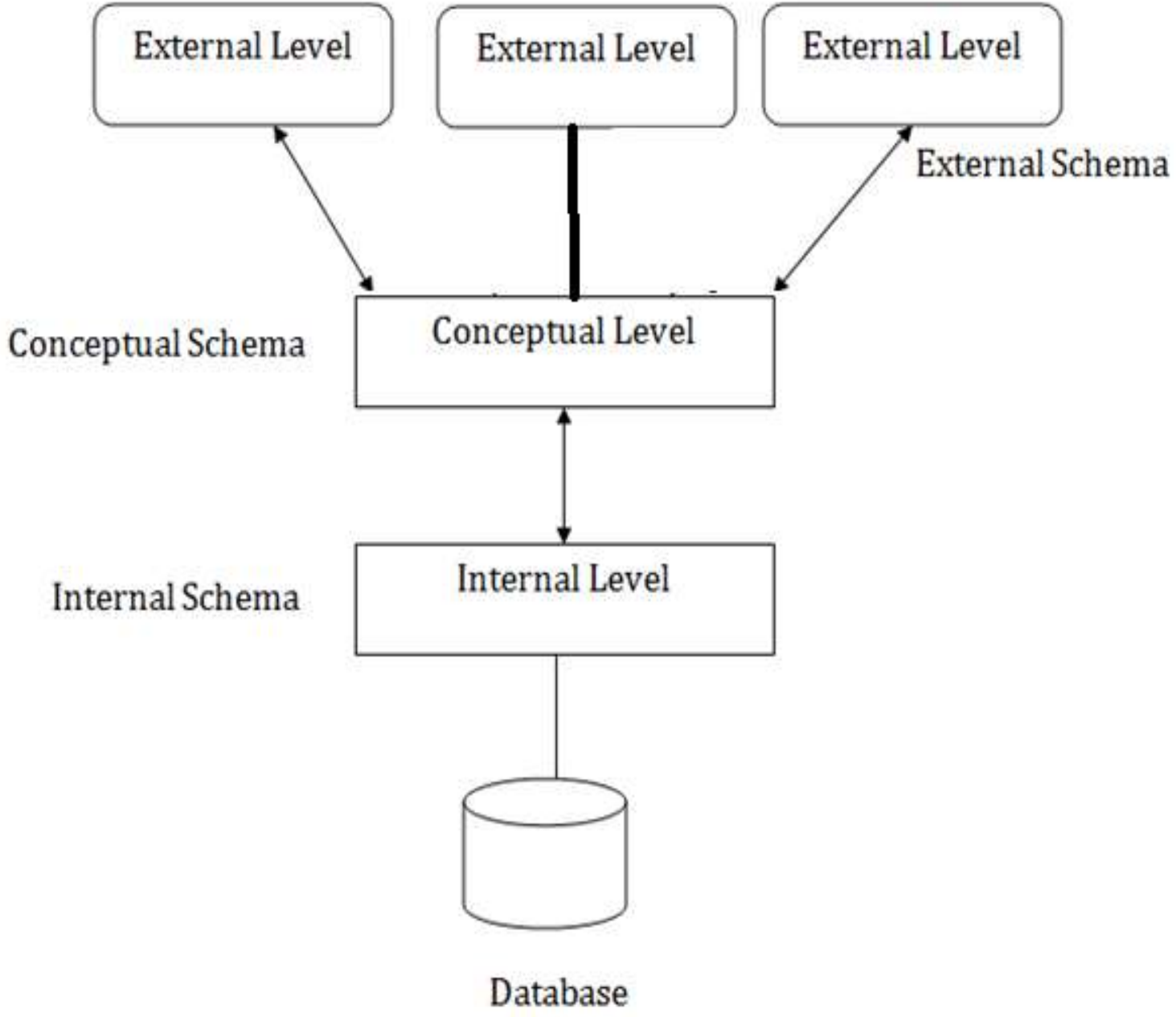
  Phone no: Number length of 10 to 20

  Address: Character length of 20 to 40

  Birth of date: Number length of 0 to 8.



DBMS Architecture


External Level
External Level
External Level
External Schema
Conceptual Schema
Conceptual Level
Internal Schema
Internal Level
Database