

- Logical Data Requirements and Functional Requirements
- Conceptual Model (ER or E-ER diagram)
- Implementation Model (Relational Schema)
- Physical Model (Access Paths, Storage Medium, etc..)

Attributes {A1, A2, ..., An}

Informal = Formal

Relational Data Model

- Tables or relations (thought of as files)

Row  
Headers  
Table

Table =  
Retlation

Home_phone		

Headers = Attribute

Domain, dom(Ai)

Rows = (N-)Tuple

Logical definition of a domain  
e.g. (often data types)  
*Usa\_phone\_numbers* - set of 10 digit phone numbers valid in the united states (integer, String).