

# Database Management Systems

Subject Teacher: Zartasha Baloch

# Database Development Process

## Lecture # 3

**Disclaimer:** The material used in this presentation to deliver the lecture i.e., definitions/text and pictures/graphs etc. does not solely belong to the author/presenter. The presenter has gathered this lecture material from various sources on web/textbooks. Following sources are especially acknowledged:

1. Connolly, Thomas M., and Carolyn E. Begg. *Database systems: a practical approach to design, implementation, and management*. Pearson Education, 2005.
2. Hoffer, Jeffrey A., Venkataraman Ramesh, and Heikki Topi. *Modern database management*. Upper Saddle River, NJ: Prentice Hall, 2011.

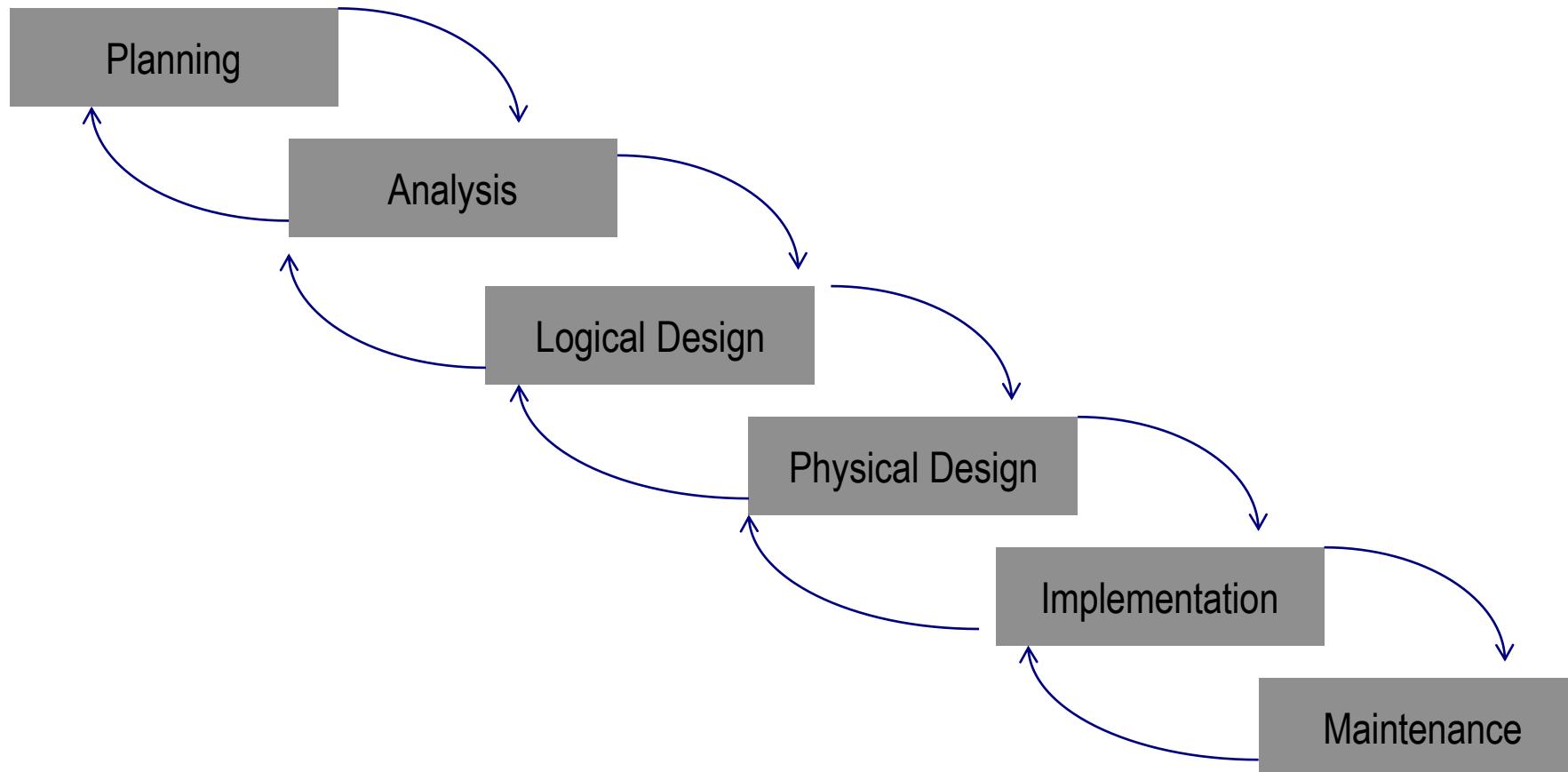
## In this Lecture you will Learn about:

- ▶ **Database Development Process**
- ▶ **System Development Life Cycle**
- ▶ **Prototyping Database Methodology**

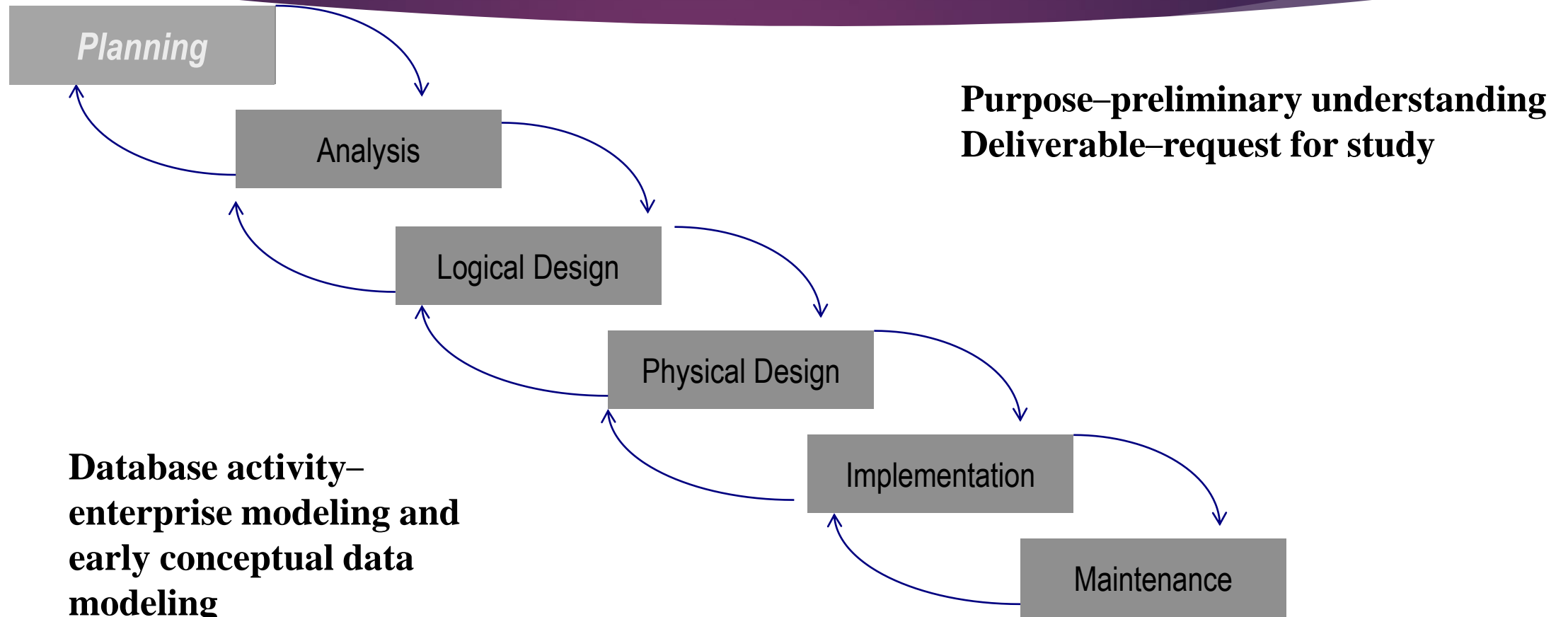
# Database Development Process

- ▶ It is the subdivision of the development process into a series of phases, or steps, each of which focuses on one aspect of the development.
- ▶ The collection of these steps is sometimes referred to as a System Development Life Cycle (SDLC).
- ▶ The SDLC is a complete set of steps that a team of information systems professionals, including database designers and programmers follow in an organization to specify, develop, maintain and replace information systems.

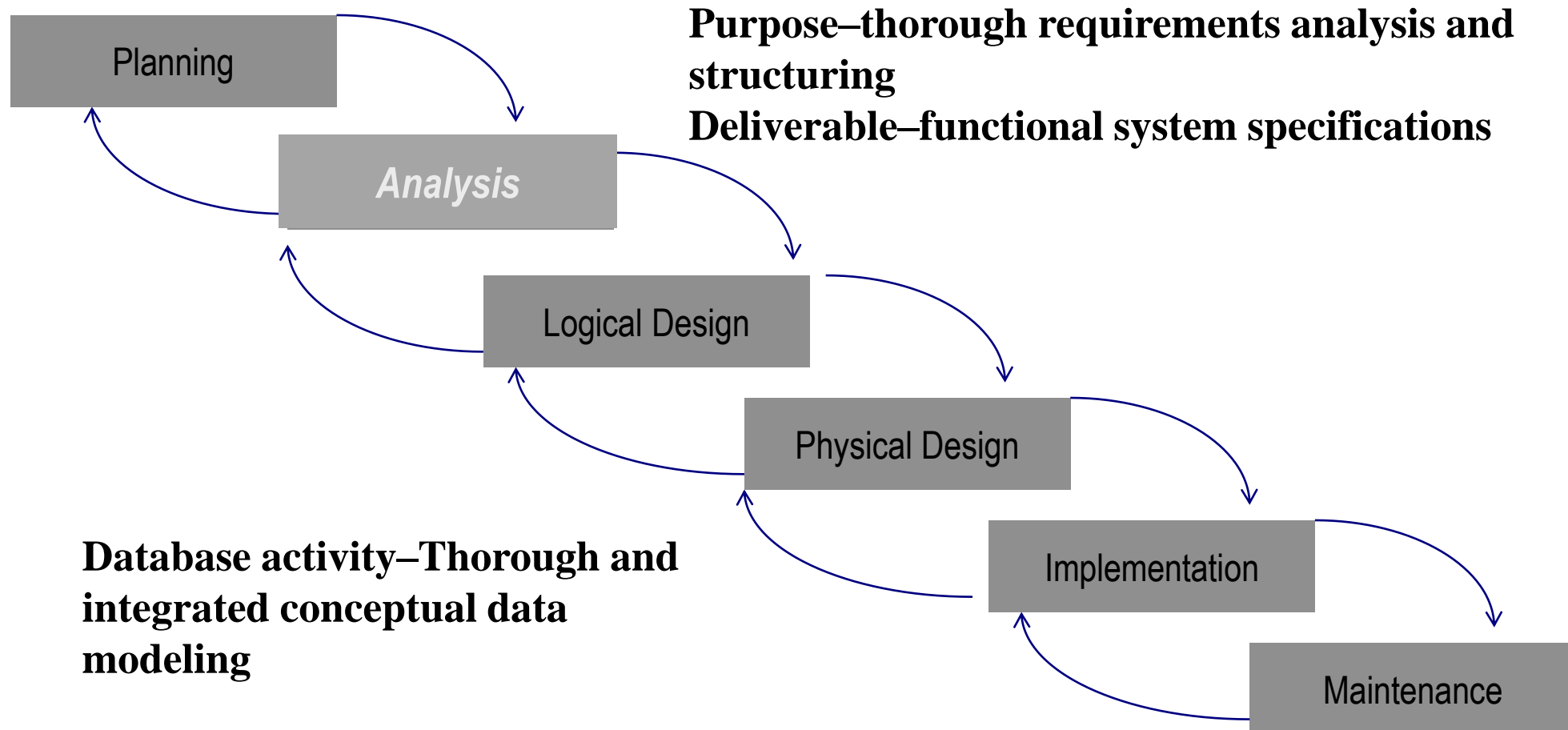
# Systems Development Life Cycle (cont.)



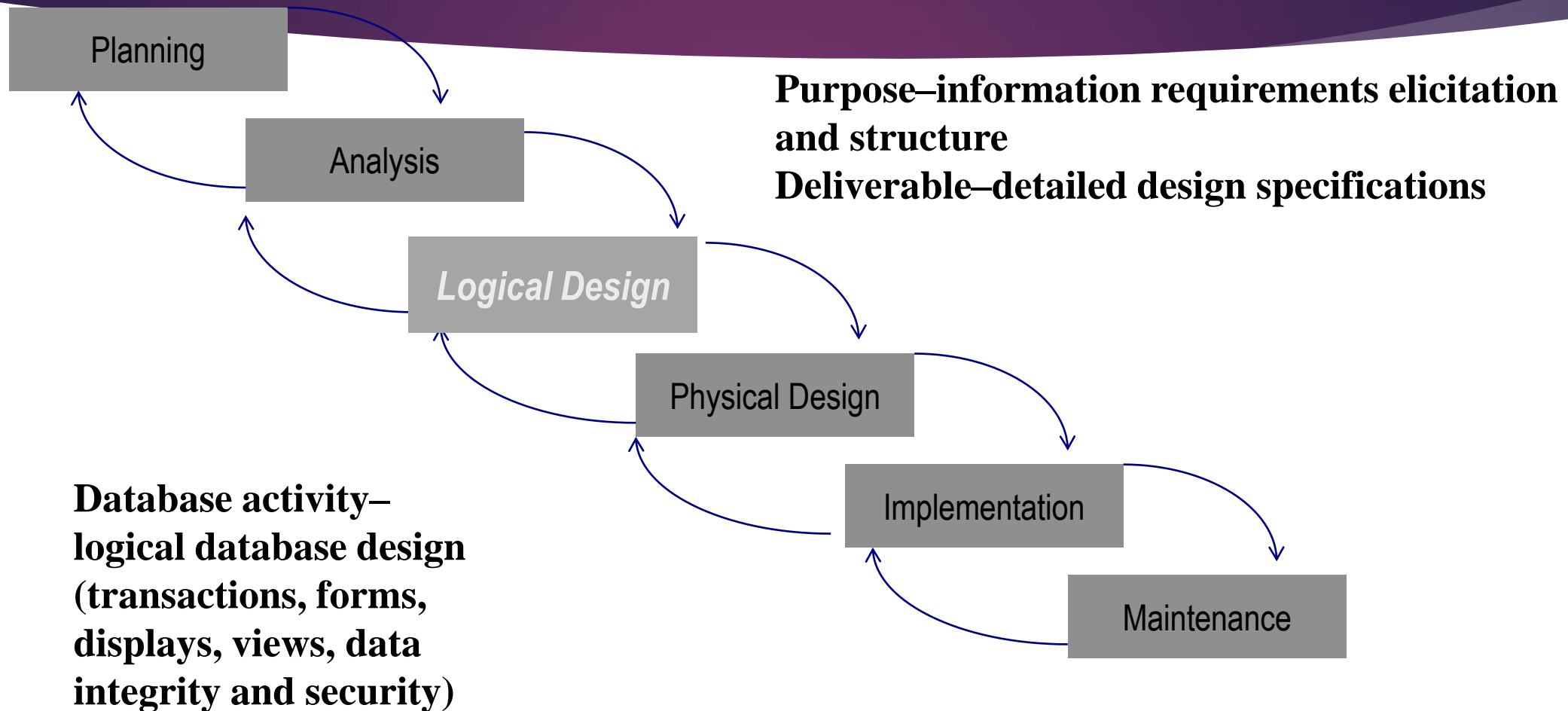
# Systems Development Life Cycle (cont.)



# Systems Development Life Cycle (cont.)

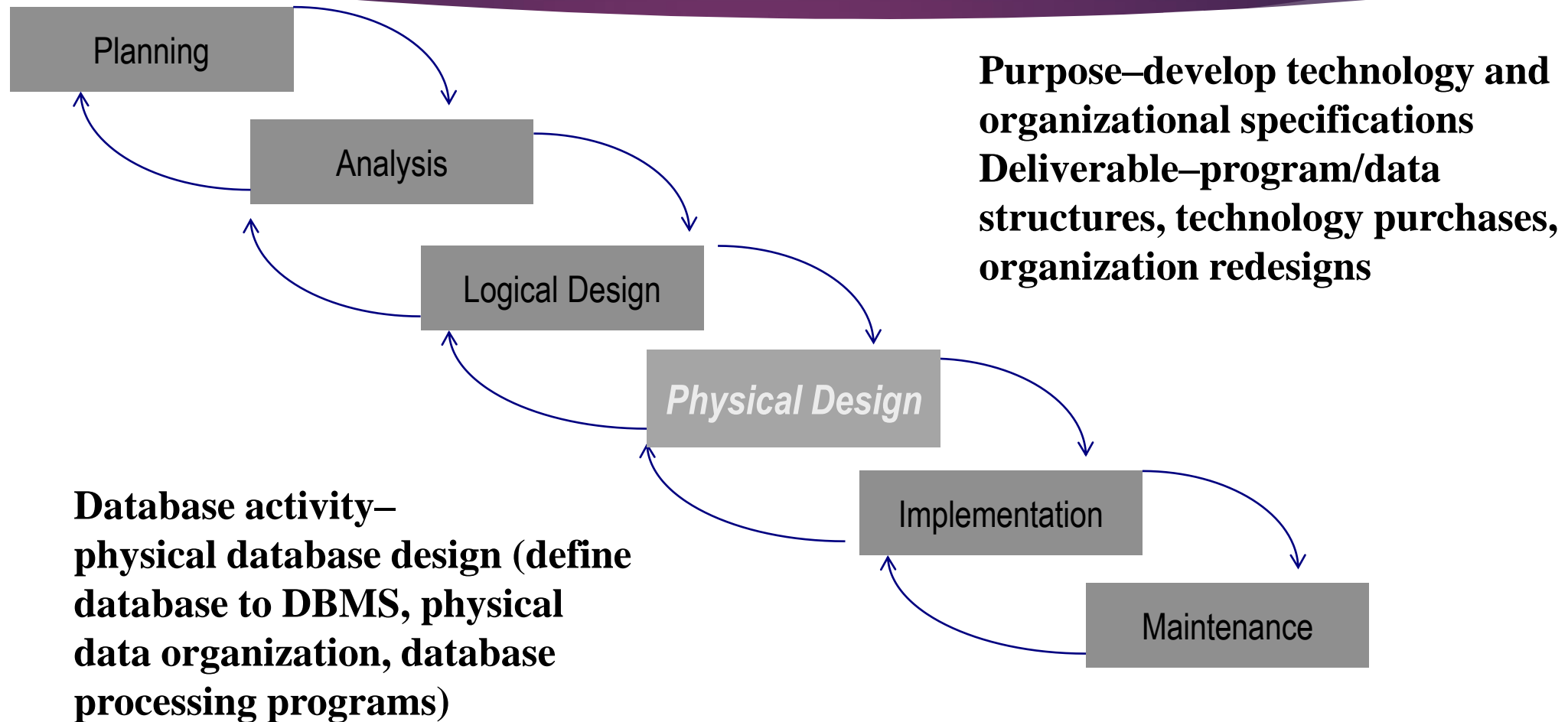


# Systems Development Life Cycle (cont.)

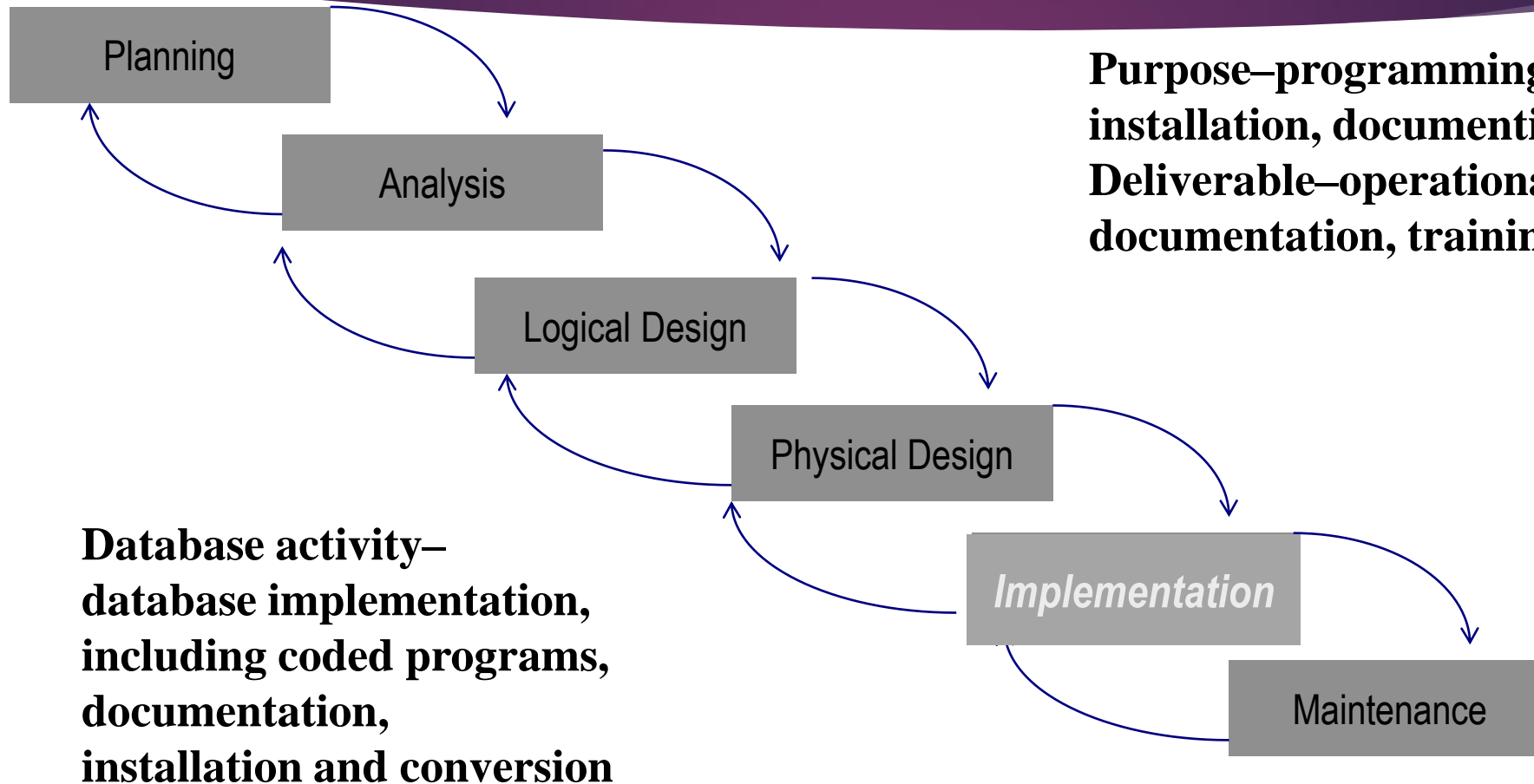




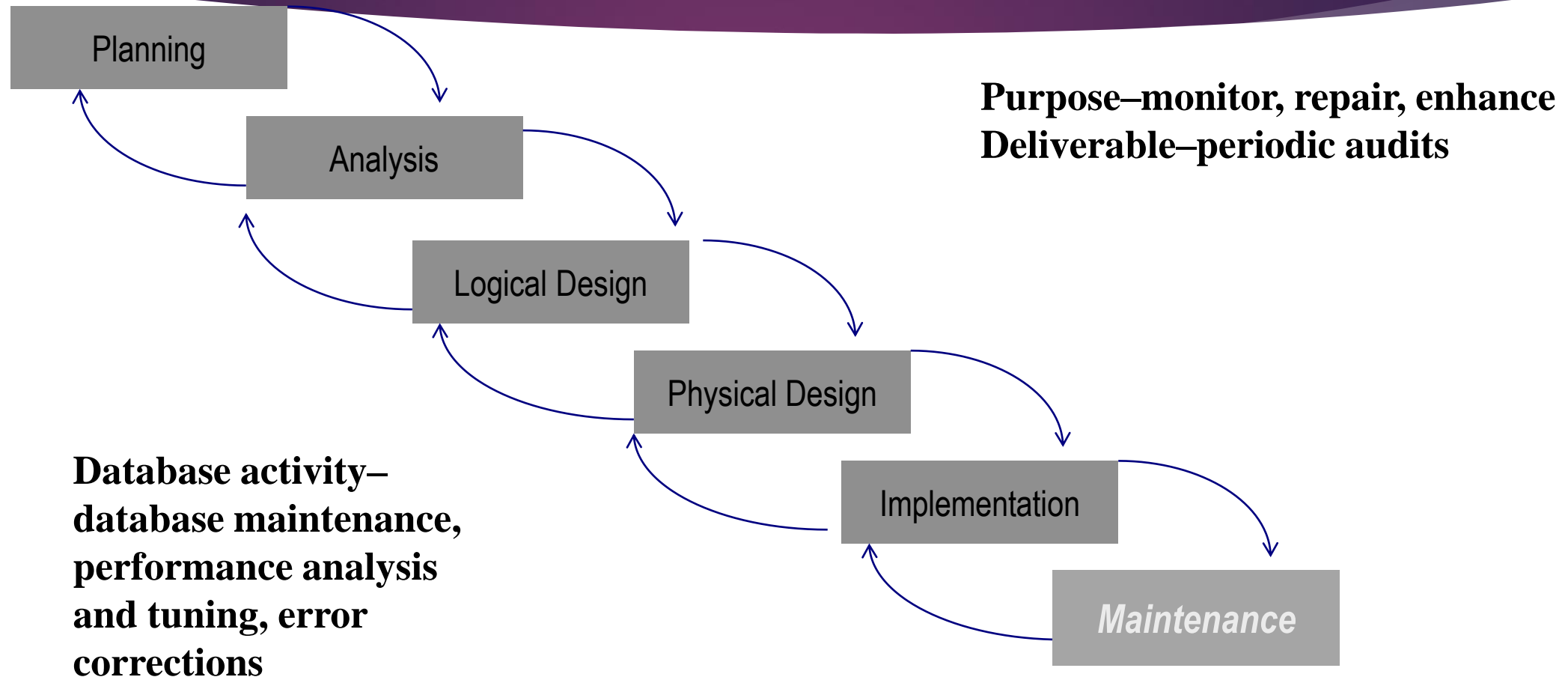
# Systems Development Life Cycle (cont.)



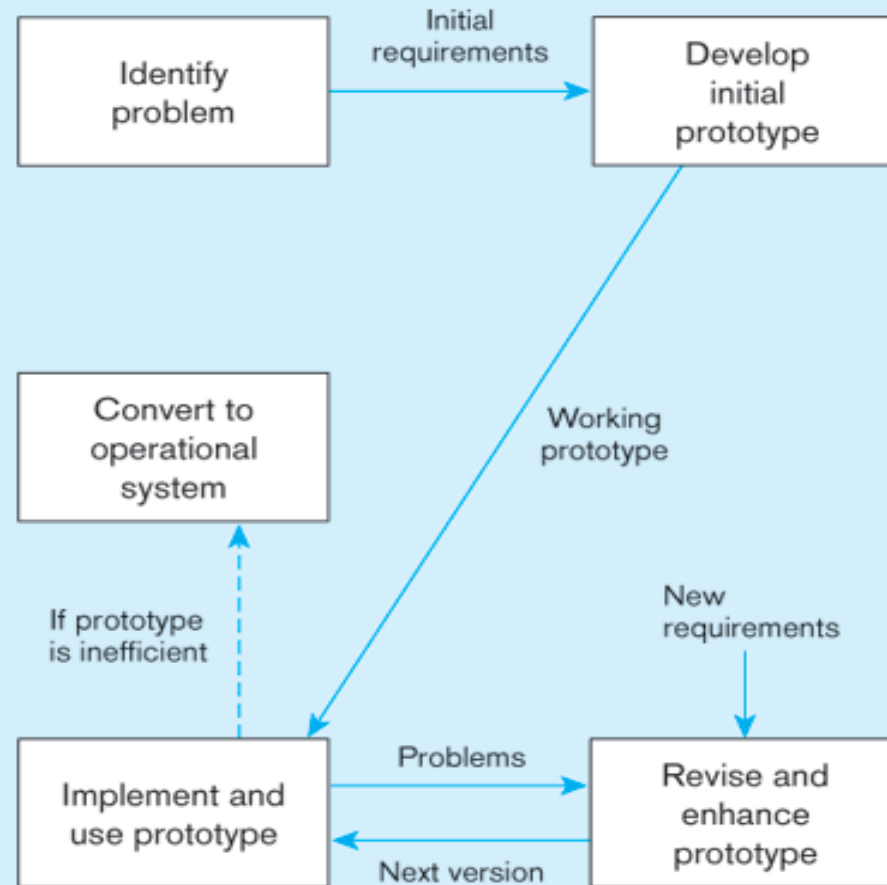
# Systems Development Life Cycle (cont.)



# Systems Development Life Cycle (cont.)



# Prototyping Database Methodology

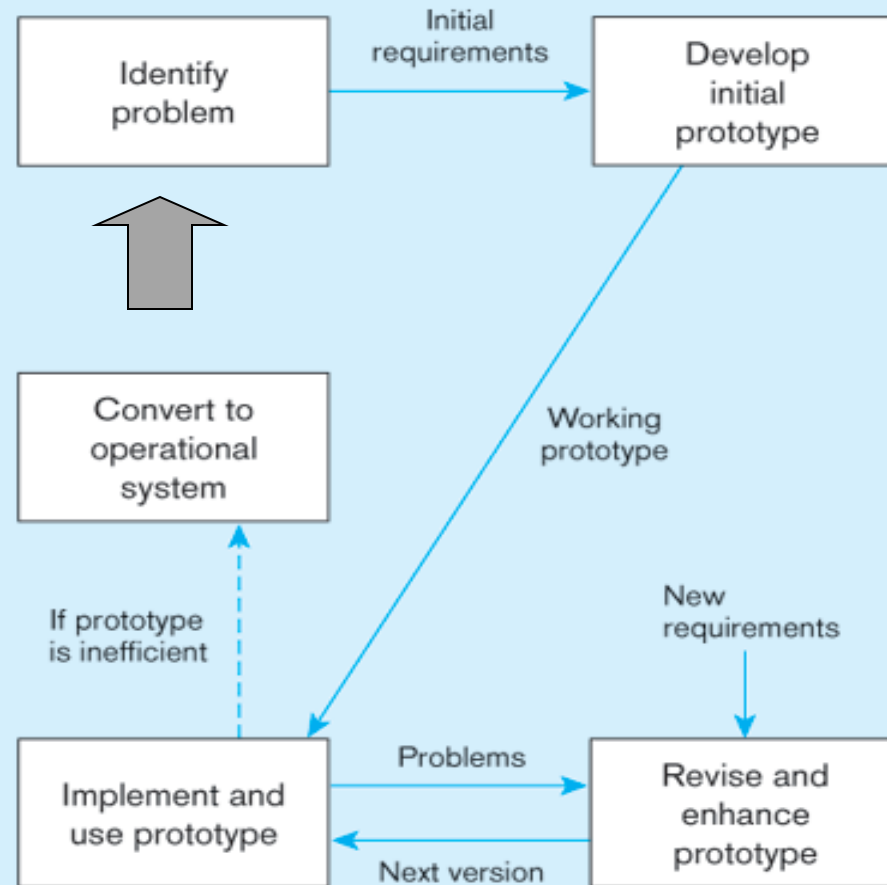


# Prototyping Database Methodology

13

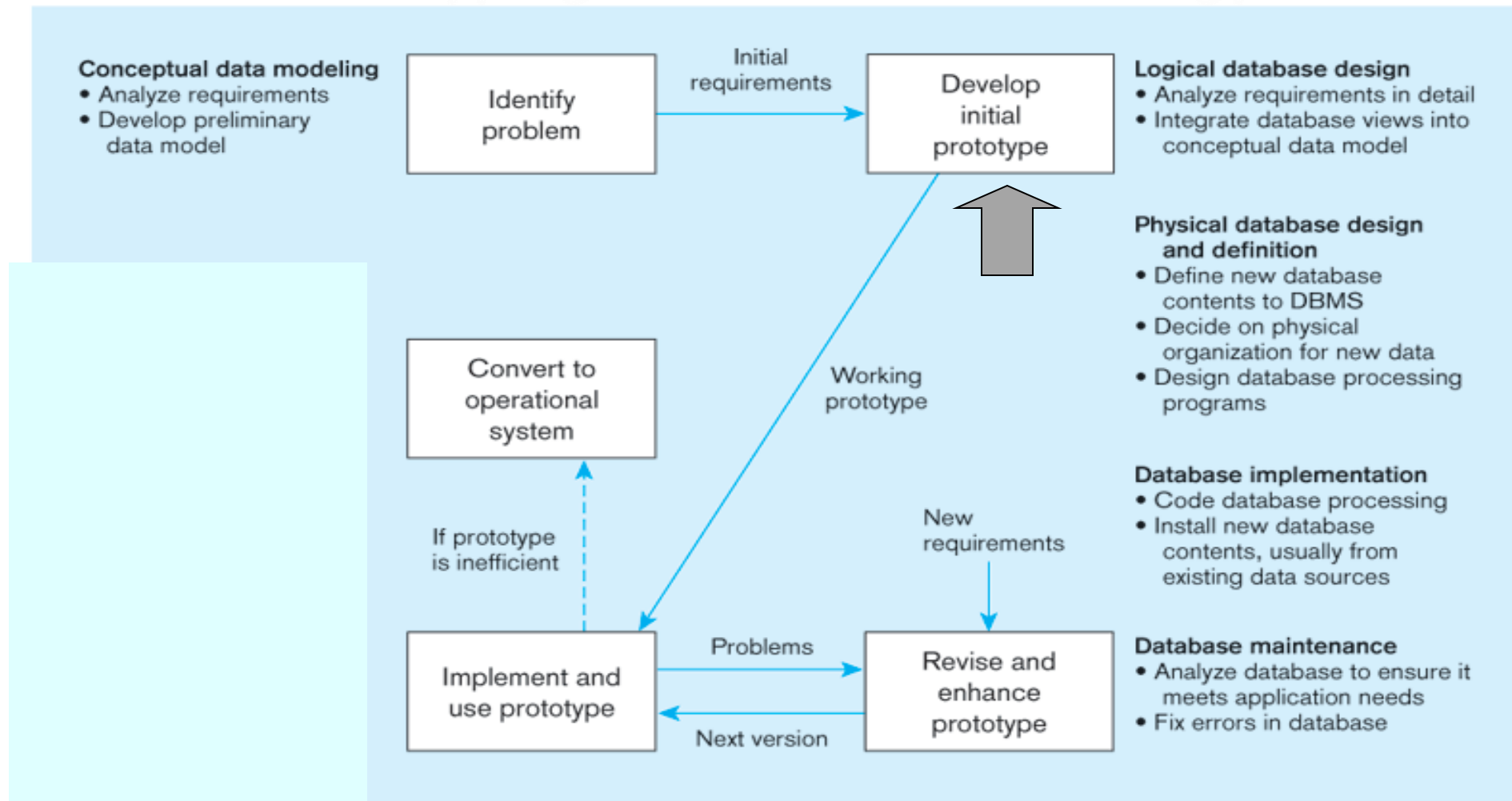
## Conceptual data modeling

- Analyze requirements
- Develop preliminary data model



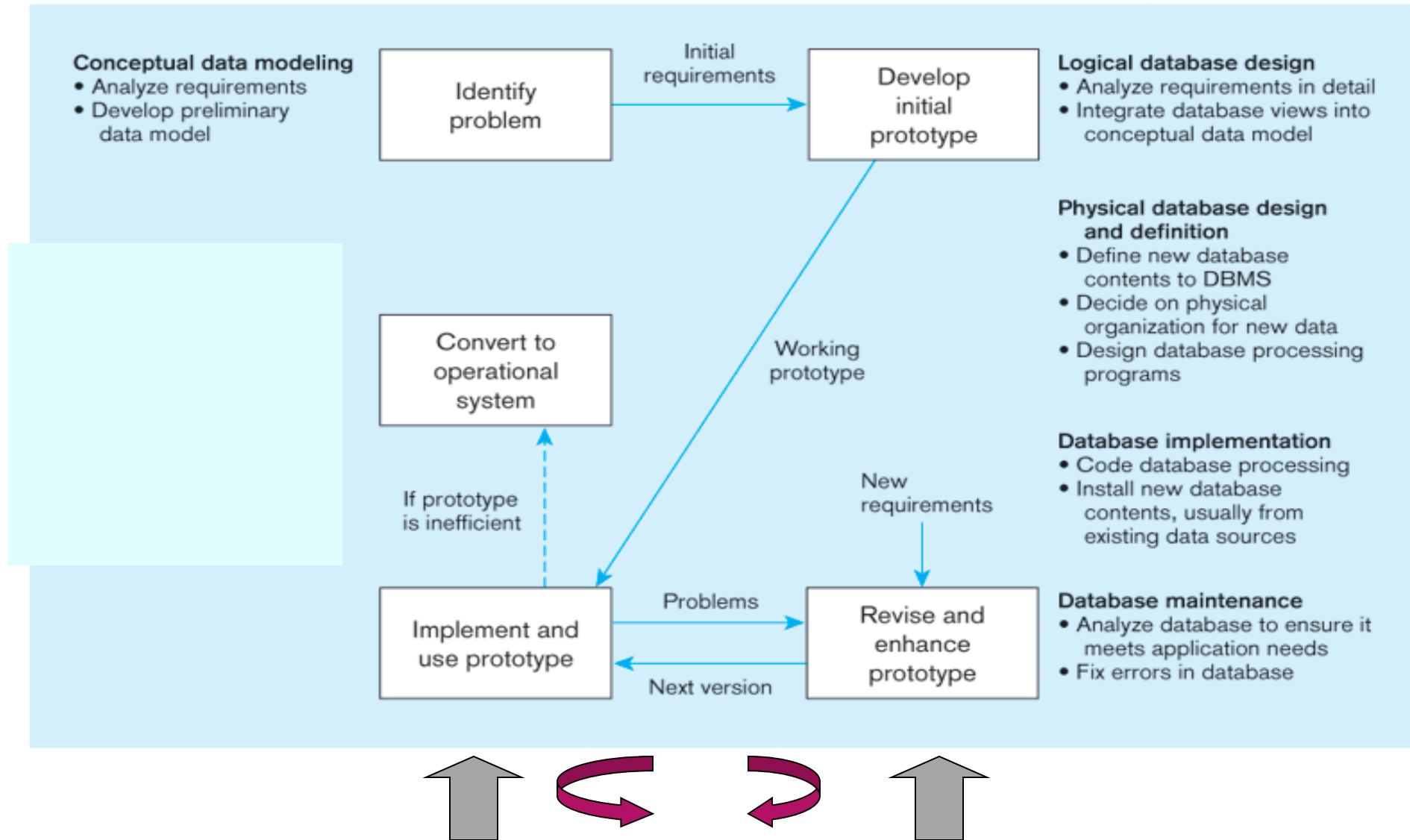
# Prototyping Database Methodology

4



# Prototyping Database Methodology

15



# Prototyping Database Methodology

16

