Exercise: Examples of Architecture

Identify the main constraints and key patterns for the following domains

- Buildings
- Plumbing
- Power systems
RELATIONAL DATABASE SCHEMA

COMPONENTS: [TABLES, VIEWS]

INTERCONNECTIONS: FOREIGN KEYS

CONSTRAINTS: PRIMARY KEY ENTITY
- ATTRIBUTE
- REFERRENTIAL INTEGRITY
- NOT NULL (ON SPECIFIC ATTRIBUTES)
- DATA TYPES

COMPONENTS: ATTRIBUTES

INTERCONNECTION: GROUPING

CONSTRAINTS: ATTRIBUTES CONSTITUTE A SUPER KEY
- 1 ATTRIBUTE PER TABLE

 PATTERNS: NORMAL FORMS
- SETS OF FUNCTIONAL DEPENDENCIES

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THREE-TIER ARCHITECTURE (STYLE)

COMPONENTS: DB-SERVER, APSSERVER, FRONTEND

INTERCONNECTIONS: OBJECTS (AS IN UML)
- MESSAGES
- HTTP, FTP

COMPONENTS: DATA, FRONTEND

INTERCONNECTION (CONNECTOR): APPLICATION LOGIC

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