Waterfall-model:

- **Requirements specification**: In requirements specification, the designer and customer try to capture a description of what the eventual system will be expected to provide.
- **Architectural design**: The next activities concentrate on how the system provides the services expected from it.
- **Detailed Design** : For those components that are not already available for immediate integra□tion, the designer must provide a sufficiently detailed description so that they may be implemented in some programming language
- **Coding and unit testing** : After coding, the component can be tested to verify that it performs correctly, according to some test criteria that were determined in earlier activities
- **Integration and testing** : Once enough components have been implemented and individually tested, they must be integrated as described in the architectural design.
- **Maintenanc**e: After product release, all work on the system is considered under the category of maintenance.

Techniques for proto typing:

- Storyboards : which is a graphical depiction of the outward appearance of the intended system, without any accom□panying system functionality.
- Limited functionality simulations : Programming support for simulations means a designer can rapidly build graph□ical and textual interaction objects and attach some behavior to those objects
- High-level programming support: HyperTalk was an example of a special Purpose high-level programming language which makes it easy for the designer to program certain features of an interactive sys□tem at the expe of other system features like speed of response or space efficiency

Design rationale is information that explains why a computer system is the way it is.

Benefits

- communication throughout life cycle
- reuse of design knowledge across products
- enforces design discipline
- presents arguments for design trade-offs
- organizes potentially large design space
- capturing contextual information