

Software Design Process – Software Engineering The design phase of software development deals with transforming the customer requirements as described in the SRS documents into a form implementable using a programming language. The software design process can be divided into the following three levels or phases of design: Interface Design Architectural Design Detailed Design

Interface Design Interface design is the specification of the interaction between a system and its environment. This phase proceeds at a high level of abstraction with respect to the inner workings of the system i.e, during interface design, the internal of the systems are completely ignored, and the system is treated as a black box. Attention is focused on the dialogue between the target system and the users, devices, and other systems with which it interacts. The design problem statement produced during the problem analysis step should identify the people, other systems, and devices which are collectively called agents. Interface design should include the following details: Precise description of events in the environment, or messages from agents to which the system must respond. Precise description of the events or messages that the system must produce. Specification of the data, and the formats of the data coming into and going out of the system. Specification of the ordering and timing relationships between incoming events or messages, and outgoing events or outputs.

Architectural Design Architectural design is the specification of the major components of a system, their responsibilities, properties, interfaces, and the relationships and interactions between them. In architectural design, the overall structure of the system is chosen, but the internal details of major components are ignored. Issues in architectural design includes: Gross decomposition of the systems into major components. Allocation of functional responsibilities to components. Component Interfaces.