DESIGN OF SOFTWARE COMPONENTS

A COMPONENT IS A PIECE OF SOFTWARE THAT ENCAPSULATES A SET OF RELATED FUNCTIONS OR DATA

EXTERNAL PERSPECTIVE

WHAT IS?

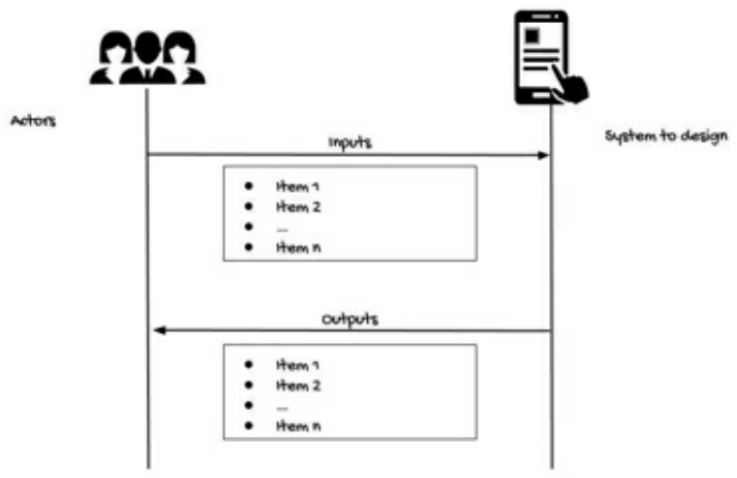
The external perspective represents the component´s elements that are visible to others.

HOW TO DESIGN?

To define funcionalities and Public Interface.

Use sequence diagrams to show a particular scenario.

To define Inputs and expect Outputs



INTERNAL PERSPECTIVE

WHAT IS?

The internal perspective contains the information of the elements required to implement the functions.

HOW TO DESIGN?

Logic specification represents a detailed design of the instructions to be programmed.

The function specification represents what are the atomic responsibilities.

To describe the data structures that the component manages.

HOW TO CHECK IF IT´S A GOOD DESIGN?

COHESION

Number of responsibilities assumed by each component

COUPLING

Number of collaborators that a component needs to fulfill its responsibilities

RELIABILITY

Capability to react properly when unexpected inputs are received

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