Software Design

Software Design of the System shows the interactions between the different modules of the system and the communication pattern between them. It also shows that which module is active for what duration of time. The different method of representing software design is Data flow diagram, Sequence diagram and Use Case diagram.

Data Flow Diagram

A Data Flow diagram or DFD is a graphical representation of the “flow” of data through an information system, modelling its process aspects. The DFD is also called as bubble chart. Often, they are a preliminary step used to create an overview of the system which can later be elaborated. DFDs can also be used for the visualization of data processing or structured designing.

Data flow diagram shows what kind of information will be input to and output from the system, where the data will come from and go to, and where the data will be stored. It does not show information about the timing of process, or information about whether process will operate in sequence or in parallel.

Fig shows the level 0 DFD, level 0 DD’s will give the overview of the whole system. The input to the system is given by user who is the sender, the publisher users broker and at the receiver side the message is obtained safely. The fig explains how the client logins into his account. After his successfully login, user is provided with varies features where he can control devices through UI like android app or Web interface.

Sequence Diagram

A sequence diagram is an interaction diagram that shows how objects operate with one another and in what order. It is a construct of a message sequence chart and shows object interactions arranged in time sequence. It depicts the objects and classes involved in the scenario and the sequence of messages exchanged between the objects needed to carry out the functionality of the scenario.