## Data Flow Diagrams

The data flow diagram (DFD) is one of the most important tools used by the system analysts. Data flow diagrams are made up of number of symbols, which represent system components. Most data flow modeling methods use four kinds of symbols. These symbols are used to represent four kinds of system components. Processes, data store, data flows, external entities. Circles in DFD represent processes. Data flow represents by a thin line in the DFD and each store has a unique name and square or rectangle represents external entities. A Data Flow Diagram (DFD) is a graphical representation of the "flow" of data through an information system, modeling its process aspects. A DFD is often used as a preliminary step to create an overview of the system, which can later be elaborated. DFDs can also be used for the visualization of data processing (structured design).A DFD 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 processes will operate in sequence or in parallel (which is shown on a flowcharts).

## Basic DFD Symbols

There are different notations to draw data flow diagrams (Yourdon & Coad and Gane&Sarson), defining different visual representations for processes, data stores, data flow, and external entities.

## Arrows

A data flow is a route, which enables packets of data to travel from one point to another. An arrow identifies data flow-data in motion. It is a pipeline through which information flows.

## Process

A process represents transformation where incoming data flows are changed into outgoing data flows. A circle or a ―bubble‖ represents a process that transforms incoming data flows into outgoing data flows.

## Data Store

The DFD methodology is quite effective; especially when the required design is unclear and the user analyst need a notational language for communication. The DFD is easy to understand after a brief orientation. Several rules of thumb are used during drawing DFD‘s;

* Process should be named and numbered for easy reference.
* The direction of flow is from top to bottom and from left to right.
* When a process is exploded into lower-level details, they are numbered.
* The names of data stores, sources, and destinations are written in capital letter.

**Level- 0**

Request

Response

Seq

share

User

User

## Level-1



