**Data Flow Diagram**

Data flow diagram is a way of representing system requirements in a graphic form. A DFD also known as “Bubble Chart” has the purpose of clarifying system requirements and identifies major transformations that will become program in system design. So it is the starting point of design phase that functionally decomposes the requirements specifications down to the lowest level of details. A DFD consist of series of bubbles joined by lines. The bubbles represent data transformation and the lines represent data flow in the system.

**DFD Symbols**

In a DFD there are four symbols



A square defines a source or destination of system data.

An arrow identifies data flow in motion. It is a pipeline through which in format flows



A circle or a bubble represents a process that transforms incoming data flows into going data flows.



An open rectangle is a data source or data at rest or a temporary of data constructing a DFD.

**Rules in drawing DFD’s**

* Process should name and numbered for easy reference.
* The direction of flow is from top to bottom and from left to right. Data traditionally flow from source to destination, although they may flow from source.
* When a process is exploded into lower levels, they are numbered.
* The names of data source, sources and destination are written in capital letters. process and data flow names have the first letter of each word capital

A DFD is often used as a preliminary step to create an overview of the system, which can later be elaborated. The DFD is designed to aid communication. The rule of thumb is exploding the DFD to a functional level, so that the next sublevel does not exceeds to process. Beyond that it is best to take each function separately and expand it to show the explosion of single process. Data flow diagrams are one of the three essential perspectives of the structured-systems analysis and design method SSADM. With a data flow diagram, users are able to visualize how the system will operate, what the system will accomplish, and how the system will be implemented. It is a common practice to show the interaction between the system and external agents which act as data sources and data sinks.