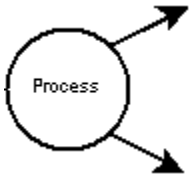
1 All processes should have unique names. If two data flow lines (or data stores) have the same label, they should both refer to the exact same data flow (or data store).

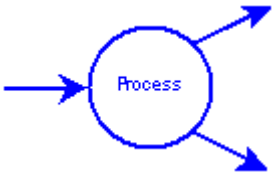
2 The inputs to a process should differ from the outputs of a process.

3 Any single DFD should not have more than about seven processes.

4 No process can have only outputs. (This would imply that the process is making information from nothing.) If an object has only outputs, then it must be a source.

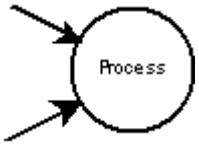


Incorrect



Correct

5 No process can have only inputs. (This is referred to as a "black hole".) If an object has only inputs, then it must be a sink.



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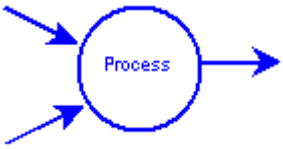
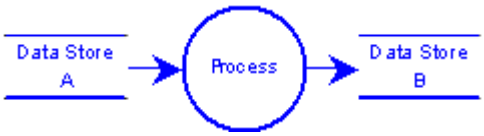


Correct

6 A process has a verb phrase label.

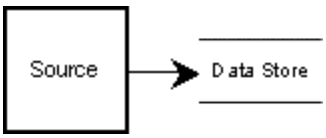
7 Data cannot move directly from one data store to another data store.
Data must be moved by a process.

Incorrect



Correct

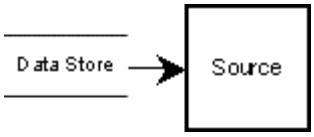
8 Data cannot move directly from an outside source to a data store. Data must be moved by a process that receives data from the source and places the data in the data store.



Incorrect

Correct

9 Data cannot move directly to an outside sink from a data store.
Data must be moved by a process.

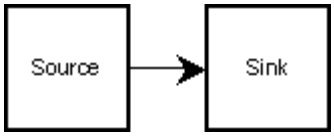


Incorrect

Correct

10 A data store has a noun phrase label.

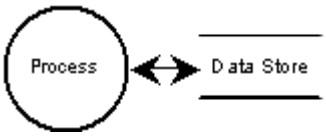
11 Data cannot move directly from a source to a sink. It must be moved by a process if the data are of any concern to the system. If data flows directly from a source to a sink (and does not involved processing) then it is outside the scope of the system and is not shown on the system data flow diagram DFD.



Incorrect Correct

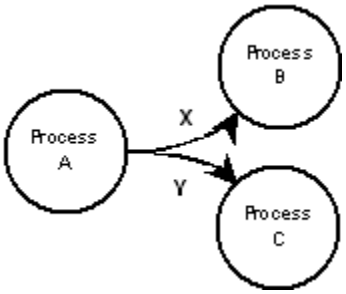
12 A source/sink has a noun phrase label.

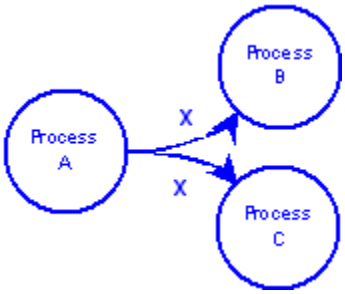
13 A data flow has only one direction between symbols. It may flow in both directions between a process and a data store to show a read before an update. To effectively show a read before an update, draw two separate arrows because the two steps (reading and updating) occur at separate times.



Incorrect Correct

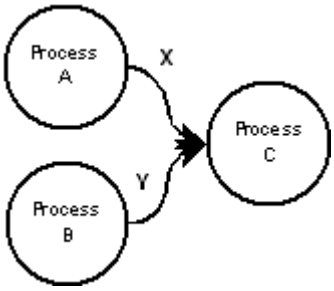
14 A fork in a data flow means that exactly the same data goes from a common location to two or more different processes, data stores, or sources/sinks. (This usually indicates different copies of the same data going to different locations.)

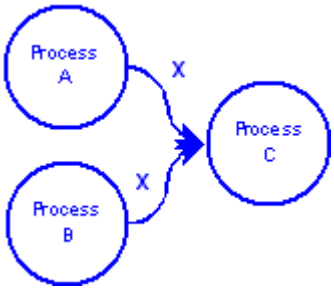




Incorrect Correct

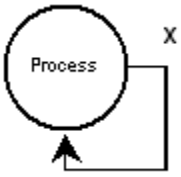
15 A join in a data flow means that exactly the same data comes from any of two or more different processes, data stores, or sources/sinks, to a common location.



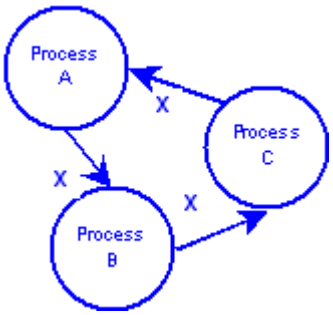


Incorrect Correct

16 A data flow cannot go directly back to the same process it leaves. There must be at least one other process that handles the data flow, produces some other data flow, and returns the original data flow to the originating process.



Incorrect



Correct

17 A data flow to a data store means update (i.e., delete, add, or change).

18 A data flow from a data store means retrieve or use.

19 A data flow has a noun phrase label. More than one data flow noun phrase can appear on a single arrow as long as all of the flows on the same arrow move together as one package.