Differences between unnamed and named pipes

1. An unnamed pipe is only used for communication between a child and its parent process, while a named pipe can be used for communication between two unnamed processes as well. Processes of different ancestry can share data through a named pipe.

2. A named pipe exists in the file system. After input-output has been performed by the sharing processes, the pipe still exists in the file system independently of the process, and can be used for communication between some other processes. On the other hand, an unnamed pipe vanishes as soon as it is closed, or one of the process (parent or child) completes execution.

3. Named pipes can be used to provide communication between processes on the same computer or between processes on different computers across a network, as in case of a distributed system. Unnamed pipes are always local; they cannot be used for communication over a network.

4. A Named pipe can have multiple process communicating through it, like multiple clients connected to one server. On the other hand, an unnamed pipe is a one-way pipe that typically transfers data between a parent process and a child process.