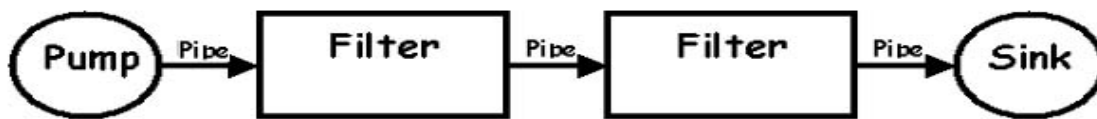


Architectural Styles

From Architectural Styles we come to know that how the system is builded i.e what components are used , How components are organized, how components communicate, how data is manipulated . Different types of Architectural Styles are:

- ✓ Pipes and Filters
- ✓ Object-Orientation based
- ✓ Event-Based
- ✓ Implicit Invocation based
- ✓ Layered Systems based
- ✓ Repositories based
- ✓ Interpreters based

1. Pipes and Filters



The **filter** transforms or *filters* the data it receives via the pipes with which it is connected. A filter can have any number of input pipes and any number of output pipes.

The **pipe** is the connector that passes data from one filter to the next.

The **pump** or producer is the data source. It can be a static text file, or a keyboard input device, continuously creating new data.

The **sink** or consumer is the data target. It can be a another file, a database, or a computer screen.

Example;

- Unix programs : The output of one program can be linked to the input of another program.
- Compilers : The consecutive filters perform lexical analysis, parsing, semantic analysis, and code generation.

Properties:

Filters don't need to know anything about what they are connected to

Filters can be implemented in parallel

Behaviour of the system is the composition of behaviour of the filters