Syntax directed definations: Are a generalizations of context-free grammars in which

- 1. Grammar symbols have an associated set of Attributes.
- 2. Productions are associated with Semantic Rules for computing the values of attributes.

The value of an attribute of a grammar symbol at a given parse-tree node is defined by a semantic rule associated with the production used at that node.

For Example :

Let us consider the Grammar for arithmetic expressions. The Syntax Directed Definition associates to each non terminal a synthesized attribute called val.

Production	Semantic rule
L à En	print(E.val)
E à E1 + T	E.val := E1.val + T.val
EàT	E.val := T.val
T à T1 * F	T.val := T1.val * F.val
TàF	T.val := F.val
Fà(E)	F.val := E.val