## Ada Syntax Card

subtype\_name; task type id [discrim] [is

(id {,id} : [access] subtype\_name [:= expr] {; ...})

← DISCRIM ::=

Ada 95	Repeatable	Choose one	Expansion term
italic	\$	_	!
Ada keyword	Optional term	Alternative	Identical term
pold	=	_	

```
task id [is
end [id]]
                                                                                                                                                                                                                                                                           {with library_unit_name {,...}; | use_clause} separate (parent_name)
                                                                                                                                                                                                                                                                                                             \subprogram_body|package_body|task_body|protected_body\
                                                                                                                                                                                                                                                                                                                                                                                                         | use type subtype_name {,...};
                                                                                                                                                                                                                                         with library_unit_name {,...}; | use_clause} library_item
                                                                                                                                                                                                            ← COMPILATION_UNIT ::=
                                                                                                                                                                                                                                                                                                                                                                                                         use pack_name {,...};
                                                                                                                                                                                                                                                                                                                                                                               ← USE_CLAUSE ::=
                                                                                                                   LIBRARY
```

[private] generic\_formals|use\_clause} subprogram\_spec; [private] generic\_formals|use\_clause} package\_spec; [private] package [parent\_name.]id is new gen\_pack\_name [*private*] subprogram\_spec; | [*private*] package\_spec; ← LIBRARY ITEM ::=

[private] procedure [parent\_name.]id is new gen\_proc\_name [generic\_actuals];

[private] function [parent\_name.]id|op is new gen\_func\_name [generic\_actuals]; [generic\_actuals];

| package\_body; subprogram\_body;

[private] package [parent\_name.]id renames pack\_name;

[private] generic procedure [parent\_name.]id renames [private] generic package [parent\_name.]id renames gen\_pack\_name;

[private] generic function [parent\_name.]id renames gen\_proc\_name;

| [private] subprogram\_spec renames callable\_entity\_name; gen\_func\_name;

## **DECLARATIONS**

```
type id is digits static_expr [rangestatic_s_expr .. static_s_expr];
                                                                                                                                                                                              type id is [delta static_expr] range static_s_expr .. static_s_expr;
                                                                                                                                                                                                                                                                                                                                                                                                                                                    type id [discrim] is [abstract] new subtype_id [with null record];
                                                                                                                                                                                                                                                                                                                                               type id [discrim] is [abstract] new subtype_id [with record list
                                                                                                                                                                                                                                             type id is delta static_expr digits static_expr [range
                                                                                                                                                                                                                                                                                                    static_s_expr .. static_s_expr];
← BASIC_DECLARATION ::=
type id is ( Vid|'character'\ {...});
                                                                                             type id is mod static_expr;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       type id is array_type_defn;
                                                                                                                                                                                                                                                                                                                                                                                                         end record
```

subtype\_name [digits|delta] static\_expr [range s\_expr .. s\_expr]

subtype\_name range name'Range[(static\_expr)]

← SUBTYPE\_ID ::=

subtype\_name

subtype\_name range s\_expr ... s\_expr

subtype\_name ([selector\_name {|...} =>] expr {,...})

subtype\_name (discrete\_range {,...})

array(subtype\_name range <> {,...}) of [aliased] subtype\_id

← ARRAY\_TYPE\_DEFN ::=

array(discrete\_range {,...}) of [aliased] subtype\_id

type id [discrim] is [[abstract] tagged] [limited] record list end record;

type id is access [protected] function [formals] return type id is access [protected] procedure [formals]; type id is access [all | constant | subtype\_id;

type id [discrim] is [abstract] tagged [limited] null record;

← FORMALS ::= ( id {,id} : [in | in out | out | access] subtype\_name [:= expr] {; ...}) subprogram\_body | package\_body | task\_body | protected\_body subprogram\_spec is separate; | package body id is separate; function [parent\_name.]id|op [formals] return subtype\_name task body id is separate; | protected body id is separate; {id {,id} : [aliased] subtype\_id [:= expr]; | rep\_clause {...}} ← LIST ::=
id {,id} :[aliased] subtype\_id [:= expr]; | rep\_clause {...} when \expr|discrete\_range|others\ {| ...} => list basic\_declaration | rep\_clause | use\_clause ← SUBPROGRAM\_SPEC ::= **procedure** [parent\_name.]id [formals] BASIC DECLARATIVE ITEM ::= package body [parent\_name.]id is [**private** {basic\_declarative\_item}] SUBPROGRAM\_BODY ::= package [parent\_name.]id is ← DECLARATIVE\_ITEM ::= begin handled\_statements (basic declarative item) ← PACKAGE\_SPEC ::= ← PACKAGE\_BODY ::= end [[parent\_name.]id]; basic declarative item subprogram\_spec is {declarative\_item} {declarative\_item} case name is end case; end [id]; ndi; type id [(<>)|discrim] is [abstract] new ancestor\_subtype\_id with private; { subprogram\_spec | entry id [(discrete\_range)] [formals]; | rep\_clause } { subprogram\_spec | entry id [(discrete\_range)] [formals]; | rep\_clause } private { subprogram\_spec | entry id [(discrete\_range)] [formals]; | private { subprogram\_spec | entry id [(discrete\_range)] [formals]; | id {,id} : [aliased] subtype\_id [:= expr]; | rep\_clause } ] id {,id} : [aliased] subtype\_id [:= expr]; | rep\_clause } ] type id [(<>)|discrim] is [[abstract] tagged] [limited] private; ; *private* {entry id [(discrete\_range)] [formals]; | rep\_clause}] ; *private* {entry id [(discrete\_range)] [formals]; | rep\_clause}] generic\_formals|use\_clause} subprogram\_spec; **function** id|op **is new** gen\_func\_name [generic\_actuals]; procedure id is new gen\_proc\_name [generic\_actuals]; id (,id): [aliased] [constant] subtype\_id [:= expr]; id (,id): [aliased] [constant] array\_type\_defn [:= expr]; generic\_formals|use\_dause} package\_spec; package id is new gen\_pack\_name [generic\_actuals]; (entry id [(discrete\_range)] [formals]; | rep\_clause) (entry id [(discrete\_range)] [formals]; | rep\_clause) subprogram\_spec renames callable\_entity\_name; **generic procedure** id **renames** gen\_proc\_name; generic package id renames gen\_pack\_name; generic function id renames gen\_func\_name; id : subtype\_name renames object\_name; id : exception renames exception\_name; package id renames pack\_name; id {,id} : constant := static\_expr subprogram\_spec [is abstract]; protected type id [discrim] is subtype id is subtype id; type id [(<>)|discrim]; id {,id} : exception; protected id is package\_spec; end [id]

entry id1 [(for id2 in discrete\_range)] [formals] when bool\_expr is { subprogram\_spec | subprogram\_body | begin handled\_statements begin handled\_statements] ← PROTECTED\_BODY ::= **end** [[*parent\_name*.]id]; protected body id is handled\_statements declarative item ← TASK\_BODY ::= {declarative\_item} task body id is **end** [id1]; **|** end [id]; begin subtype\_name [digits|delta] static\_expr [range name'Range[(static\_expr)] ← DISCRETE\_RANGE ::=
discrete\_subtype\_id | name'Range[(static\_expt)] | s\_expr ... s\_expr

```
{component_name at static_expr range static_s_expr..static_s_expr;}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ← LOCAL_NAME ::= id['attribute_designator] | library_unit_name
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ::= extended_digit {[underline] extended_digit}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Version 1.3 @1995 DAINA. email:pukite@daina.com
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            := identifier_letter {[underline] letter_or_digit}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ::= numeral [.numeral] [exponent] | numeral
accept id [(expr)] [formals] [do handled_statements end [id]];
                                                                                                                                                                                           accept id [(expr)] [formals] [do handled_statements end [id]];
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       for first_subtype_local_name use record [at mod static_expr;]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ::= pragma id [([id =>] \name|expr\ {,...})];
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    \entry_call_statement|delay_statement\ [statement \{...\}]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  for first_subtype_local_name use array_aggregate;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ::= "{"" | non_quote_character}"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          #base [.base] # [exponent]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ::= digit | A | B | C | D | E | F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          for local_name'attribute_designator use name;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          for local_name'attribute_designator use expr;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ::= digit {[underline] digit}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ::= identifier_letter | digit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ::= E [[+]]-] numeral
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   entry_call_statement [statement {...}]
                                                                                                                                                                                                                                                                                                                                                                                                                           entry_call_statement [statement {...}]
                                                                                                                                                                                                                                                                                                                                                                                                                                                        or delay_statement [statement {...}]
                                                                                                                                                                                                                                                           delay_statement [statement {...}]
                                                                    delay_statement [statement {...}]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REPRESENTATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    then abort statement {...}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     for \id|op\ use at expr;
                                                                                                                                                                                                                                                                                                                             else statement {...} ]
                                                                                                                                                                when bool_expr =>]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        else statement {...}
                                                                                                                                                                                                                                [statement {...}]
                                    [statement {...}]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LEXICAL
                                                                                                                                                                                                                                                                                                terminate; }
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          numeric_literal
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                                                                                                    terminate;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          letter_or_digit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   end select;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       end record;
                                                                                                                                                                                                                                                                                                                                                             end select;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      end select;
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                                                                                                                                                                                                                                                                                                                                                                                             select
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          exit [loop_name] [when bool_expr];
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          requeue entry_name [with abort];
                                                                                                                                                                                                                                                                                                                                                                                           subtype_name'(expr) | subtype_name'aggregate | new subtype_id
                                                                                                                                                                                                                                                                                                                                                                                                                             new subtype_name'(expr) | new subtype_name'aggregate | (expr)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              [id:] [while bool_expr | for id in [reverse] discrete_range] loop
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         accept id [(expr)] [formals] [do handled_statements end [id]];
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             when [id:]\exception_name|others\{| ...} => statement {...}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                when \expr|discrete_range|others\ {| ...} => statement {...}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            subtype_name'aggregate;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               raise [exception_name];
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   entry_name [([selector_name => ) \expr|var_name\ {,...})];
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     proc_name [([selector_name =>]\expr|var_name\ {,...})];
                                                                                                                                                                                                                                                                                                                                                                numeric_literal | null | string_literal | aggregate | name
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          entry call statement
                                                                                                                                                                                                                                              ← FACTOR ::=
primary [** primary] | abs primary | not primary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       [elsif bool_expr then statement {...}}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ← ENTRY CALL STATEMENT ::=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      HANDLED_STATEMENTS ::=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ← STATEMENT ::= [<<label>>] program_statement
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ← PROGRAM STATEMENT ::=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              [id:] [declare {declarative_item}]
       s_expr [not] in subtype_name
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ← SELECT_STATEMENT ::=
                                                                                                                                                      ← TERM ::=
factor {\*|/|mod|rem\ factor}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ← DELAY_STATEMENT ::= delay [untif] delay_expr;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           begin handled_statements
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            abort task_name {,...};
                                                                                           [+|-] term {\+|-|&\ term}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            subtype_name'(expr);
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    [when bool_expr =>]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     [else statement {...}]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               var_name := expr;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          if bool_expr then
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            delay_statement
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              select_statement
                                                                                                                                                                                                                                                                                                                                     ← PRIMARY ::=
                                                                  ← S_EXPR ::=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             statement {...}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     statement {...}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     statement (...)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               return [expr];
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                end loop [id];
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     case expr is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            goto label;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  end case;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              end [id];
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          end if;
                                                                                                                                                                                           type id[(<>)|discrim] is [abstract] new subtype_name [with private];
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            with package id is new gen_pack_name \(<>)|[generic_actuals];
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          — GENERIC_ACTUALS ::=
{[selector_name =>]\expr[var_name|subprog_name|entry_name]
                                                                                                                                                        type id[(<>)|discrim] is [[abstract] tagged] [limited] private;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (expr {,...}, others => expr)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | relation {and then relation}
| relation {or else relation}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         name'attribute_designator
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  subtype_name|pack_inst_name\ {,...})
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         func_name [([selector_name =>] \expr|var_name\ {,...})]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             name(discrete_range)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ([\expr|subtype_name\ with] [selector_name {|...} =>
                                                                                                                                                                                                                                                                                                                                                                                                                                                   type id is access [protected] procedure [formals];
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STATEMENTS, EXPRESSIONS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 type id is access [protected] function [formals]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (\expr|discrete_range|others\ {|...} => expr {,...})
                                                                                                                                                                                                                                                                                                                                                                                                                 type id is access [all | constant | subtype_id;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         'character'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | s_expr [not] in name'Range[(static_expr)]
| s_expr [not] in s_expr ... s_expr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             name.all
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ([\expr|subtype_name\ with] null record)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     id[(static_expr)] | Access | Delta | Digits
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 with subprogram_spec [is \name|<>\];
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              s_expr [/= | /= | < | <= | > | >= \ s_expr]
                                                                                                — GENERIC_FORMALS ::=
id {,id} : [in] subtype_name [:= expr];
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ← ATTRIBUTE_DESIGNATOR ::=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | others => ] expr {,...})
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   return subtype_name;
                                                                                                                                                                                                                                                                                                                                                      type id is delta <> [digits <>];
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ← ARRAY_AGGREGATE ::=
                                                                                                                                                                                                                                                                                                                                                                                      type id is array_type_defn;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         subtype_name(expr|name)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    — SELECTOR_NAME ::=
id | 'character' | op
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              name.selector name
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        relation {and relation}
                                                                                                                                                                                                                                                                                                                   type id is digits <>;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        relation {xor relation}
                                                                                                                                                                                                                                                           type id is range <>;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        relation {or relation}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ← AGGREGATE ::=
                                                                                                                                                                                                                                                                                      type id is mod <>;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ← RELATION ::=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                array_aggregate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             name(expr {,...})
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (expr, expr {,...})
                                                                                                                                                                                                                             type id is (<>);
       rep_clause }
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           do
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ← NAME ::=
                                    end [id];
```