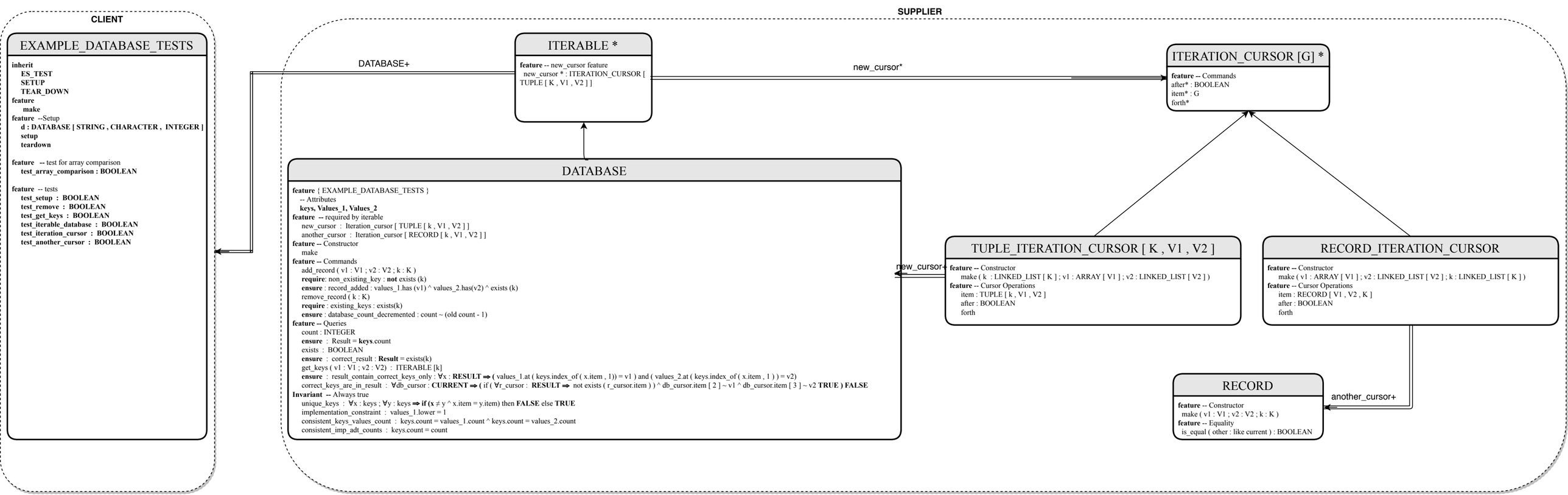
CLIENT
EXAMPLE_DATABASE_TESTS
inherit
ES_TEST
SETUP
TEAR_DOWN
feature
make
feature --Setup
d : DATABASE [STRING , CHARACTER , INTEGER]
setup
teardown
feature -- test for array comparison
test_array_comparison : BOOLEAN
feature -- tests
test_setup : BOOLEAN
test_remove : BOOLEAN
test_get_keys : BOOLEAN
test_iterable_database : BOOLEAN
test_iteration_cursor : BOOLEAN
test_another_cursor : BOOLEAN
SUPPLIER
DATABASE+
ITERABLE *
feature -- new_cursor feature
new_cursor * : ITERATION_CURSOR [TUPLE [K , V1 , V2]]
new_cursor*
ITERATION_CURSOR [G] *
feature -- Commands
after* : BOOLEAN
item* : G
forth*
DATABASE
feature { EXAMPLE_DATABASE_TESTS }
-- Attributes
keys, Values_1, Values_2
feature -- required by iterable
new_cursor : Iteration_cursor [TUPLE [k , V1 , V2]]
another_cursor : Iteration_cursor [RECORD [k , V1 , V2]]
feature -- Constructor
make
feature -- Commands
add_record (v1 : V1 ; v2 : V2 ; k : K)
require: non_existing_key : not exists (k)
ensure : record_added : values_1.has (v1) ^ values_2.has(v2) ^ exists (k)
remove_record (k : K)
require : existing_keys : exists(k)
ensure : database_count_decremented : count ~ (old count - 1)
feature -- Queries
count : INTEGER
ensure : Result = keys.count
exists : BOOLEAN
ensure : correct_result : Result = exists(k)
get_keys (v1 : V1 ; v2 : V2) : ITERABLE [k]
ensure : result_contain_correct_keys_only : ∀x : RESULT ⇒ (values_1.at (keys.index_of (x.item , 1)) = v1) and (values_2.at (keys.index_of (x.item , 1)) = v2)
correct_keys_are_in_result : ∀db_cursor : CURRENT ⇒ (if (∀r_cursor : RESULT ⇒ not exists (r_cursor.item)) ^ db_cursor.item [2] ~ v1 ^ db_cursor.item [3] ~ v2 TRUE) FALSE
Invariant -- Always true
unique_keys : ∀x : keys ; ∀y : keys ⇒ if (x ≠ y ^ x.item = y.item) then FALSE else TRUE
implementation_constraint : values_1.lower = 1
consistent_keys_values_count : keys.count = values_1.count ^ keys.count = values_2.count
consistent_imp_adt_counts : keys.count = count
new_cursor+
TUPLE_ITERATION_CURSOR [K , V1 , V2]
feature -- Constructor
make (k : LINKED_LIST [K] ; v1 : ARRAY [V1] ; v2 : LINKED_LIST [V2])
feature -- Cursor Operations
item : TUPLE [k , V1 , V2]
after : BOOLEAN
forth
RECORD_ITERATION_CURSOR
feature -- Constructor
make (v1 : ARRAY [V1] ; v2 : LINKED_LIST [V2] ; k : LINKED_LIST [K])
feature -- Cursor Operations
item : RECORD [V1 , V2 , K]
after : BOOLEAN
forth
RECORD
feature -- Constructor
make (v1 : V1 ; v2 : V2 ; k : K)
feature -- Equality
is_equal (other : like current) : BOOLEAN
another_cursor+