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Global Variable ADT User Guide

Contents

Introduction

This document describes the Global Variable Abstract Data Type implementation. Within the description of the implementation there will be a syntax description of the methods that were implemented accompanied by semantic notes of the Global Variable Abstract Data Type.
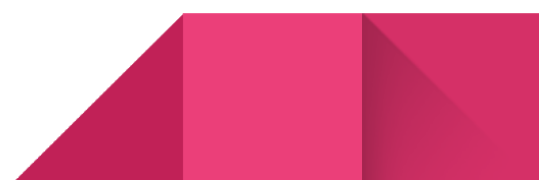
Syntax Descriptions

Method	Description
declare(Variable,Value)	This method instantiates a variable to a value. Ex. declare(x, 2).
display_bindings	This method displays the variables that were instantiated and their values. Example Output: x: 4 y: 6 true.
value_of(Variable,Value)	This method displays the value of the variable that was inserted. Ex. value_of(x, Value). Output: Value = 9.
bind(Variable, Value)	This method instantiates a variable to a value. This method has the same functionality as declare(Variable, Value). Ex. bind(x, 9).
undeclare(Variable)	This method removes the instantiated variable from the knowledge base of the program. When the variable is *undeclared* that variable no longer exists in the knowledge base.
inc(Variable)	This method increases the value of the variable that was specified by one.
dec(Variable)	This method decreases the value of the variable that was specified by one.
add(Variable, Number).	This method increases the value of the specified variable by the amount that was specified in the second parameter.
sub(Variable, Number).	This method decreases the value of the specified variable by the amount that was specified in the second parameter.

Tutorial

Consult the name of your program

Ex.

?- consult('gv.pro').

true.

Declare variables

Ex.

?- declare(x, 9).

true.

?- declare(y, 5).

True.

Display bindings

?- display_bindings.

y: 5

x: 3

true.

Decrease Value

?- dec(x).

true.

?- dec(y).

true.

Perform Addition to Variables

?- add(y, 12).

true.

Perform Subtraction to Variables

?- sub(y, 1).

true.

Undeclare Variable

?- undeclare(z).

true.

Stop Program

?- halt.