|  |
| --- |
| TAD < Graph> |
|  |
| Graph = {Vertex, Edges} |
| {inv: {Vertex(has least one), Edges(i fis direct only a to b, if isnt a to b and b to a } |
| Operaciones primitivas:  addVertex(Value)=Value->Vertex  deleteVertex(Value)=Value->deleteVertex, deleteEdges  addEdge(Value1, Value2) = Value1, Value2->Edge  deleteEdge(Value1, Value2) = Value1, Value2->deleteEdges |

-addVertex(Value):

Adds a Vetex to the Graph

PRE{Graph!=null}

Pos{Vertex}

-deleteVertex(Value)

Remove a Vetex and its realeated Edges from the Graphs

PRE{Value==VertexValue}

POS{Vertex==null and Edges==null}

addEdge(Value1, Value2):

add and Edge in base of the existing vertex (vertex1 is the initial and vertex2 is the final of the Edge)

PRE{Value1 == VertexValueInitial && Value2 == VertexValueFinal}

POS{Edge}

deleteEdge(Value1, Value2):

delete a Edge from a pair of existing vertex(vertex1 is the initial and vertex2 is the final of the Edge)

PRE{Value1 == VertexValueInitial && Value2 == VertexValueFinal}

POS{Edge == null}