Universidad Tecnológica del Norte de Guanajuato

Tecnologías de la Información y Comunicación

Licenciatura en Ingeniería en Tecnologías de la Información e Innovación Digital

Estructura de Datos

Alumno: Rojas Galindo Marlon

No. Control: 1224100711

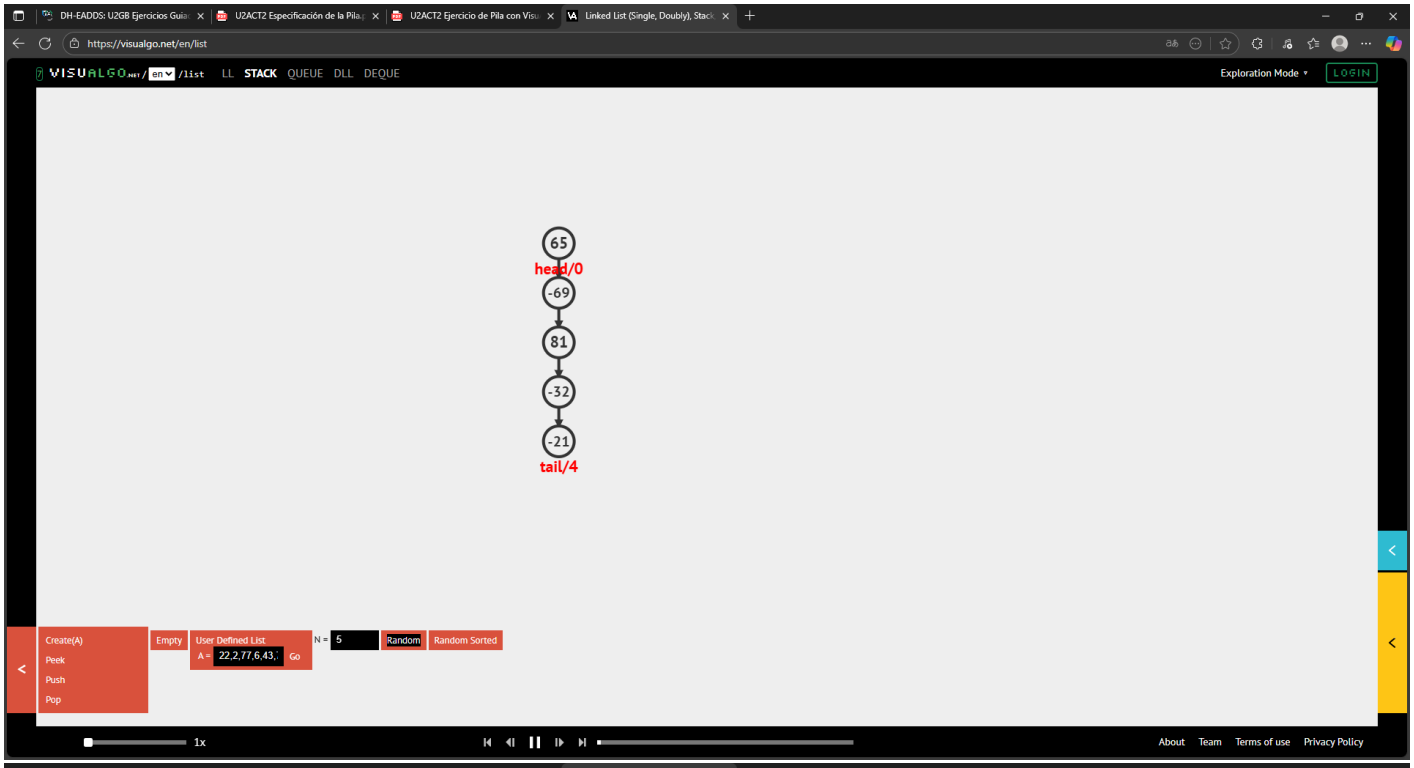
Grupo: GTID-0141

Unidad II: Estructuras de Datos Básicas

Tema: Manipulación de Pila en VisuAlgo.net

Docente: Barrón Rodríguez Gabriel

Dolores Hidalgo, C.I.N., 20 de octubre de 2025


DH-EADDS: U2GB Ejercicios Guia
U2ACT2 Especificación de la Pila
U2ACT2 Ejercicio de Pila con Visu
Linked List (Single, Doubly), Stack
https://visualgo.net/en/list
VISUALGO.NET / en / list
LL STACK QUEUE DLL DEQUE
Exploration Mode
LOGIN
65
head/0
-69
81
-32
-21
tail/4
Create(A)
Peek
Push
Pop
Empty
User Defined List
A = 22,2,77,6,43,
Go
N = 5
Random
Random Sorted
1x
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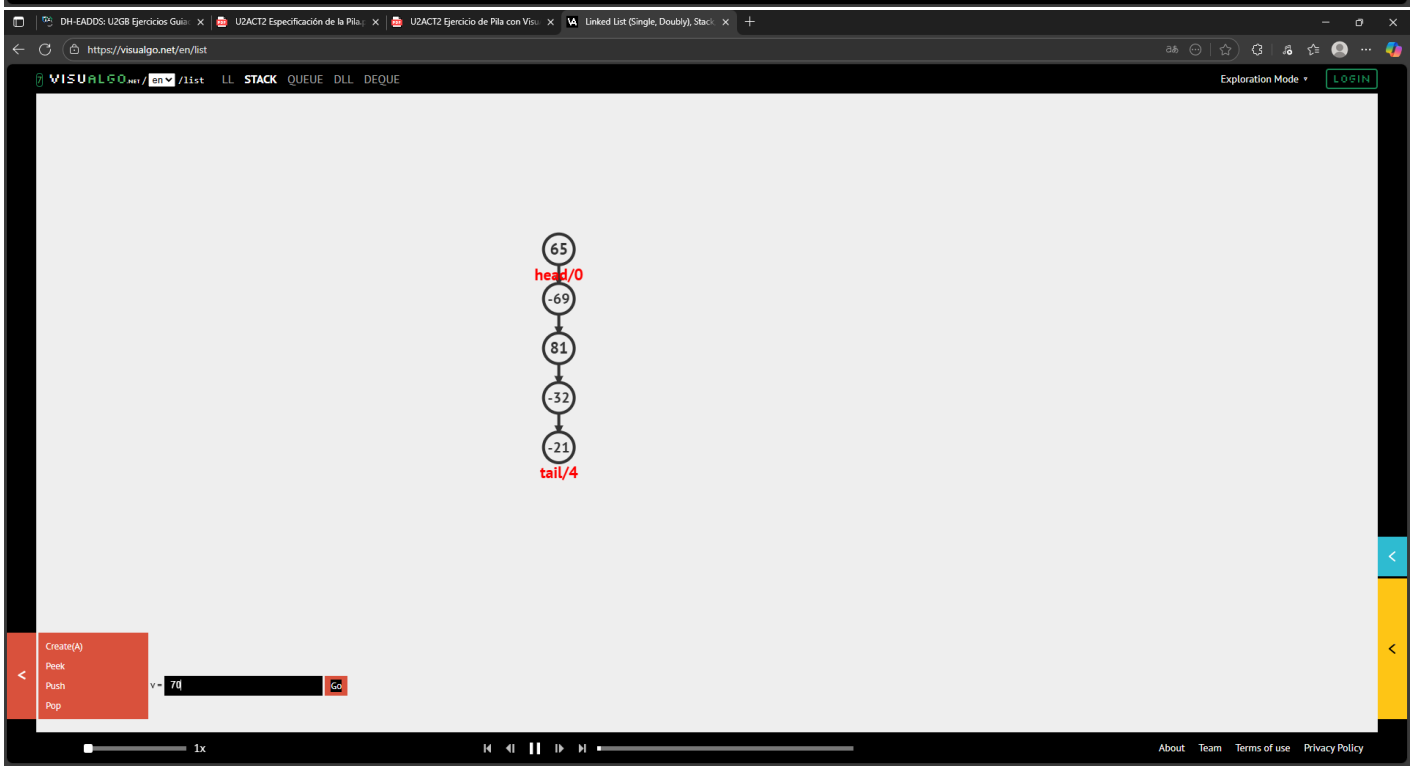
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Exploration Mode
LOGIN
65
head/0
-69
81
-32
-21
tail/4
Create(A)
Peek
Push
Pop
v = 70
Go
1x
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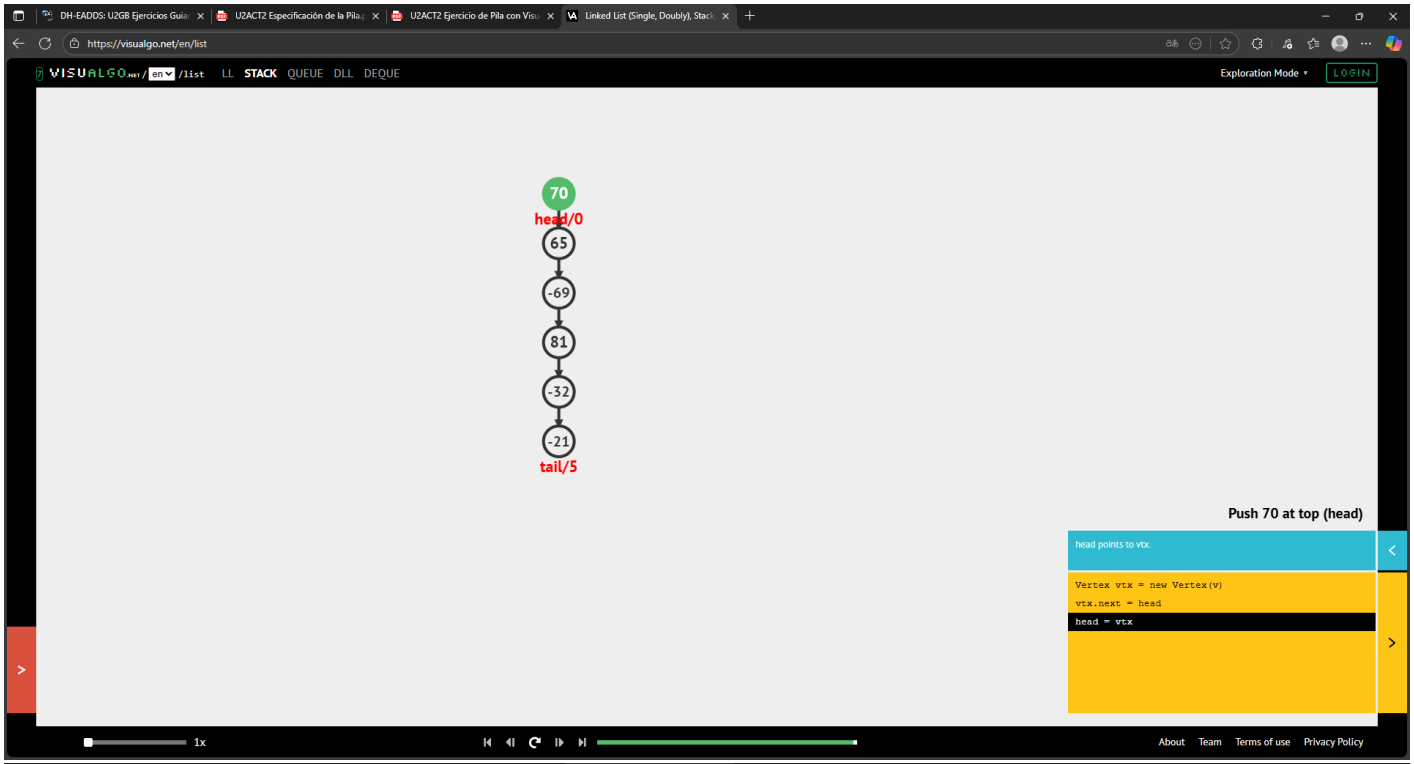
https://visualgo.net/en/list
LL STACK QUEUE DLL DEQUE
Exploration Mode
LOGIN
70
head/0
65
-69
81
-32
-21
tail/5
Push 70 at top (head)
head points to vtx.
Vertex vtx = new Vertex(v)
vtx.next = head
head = vtx
1x
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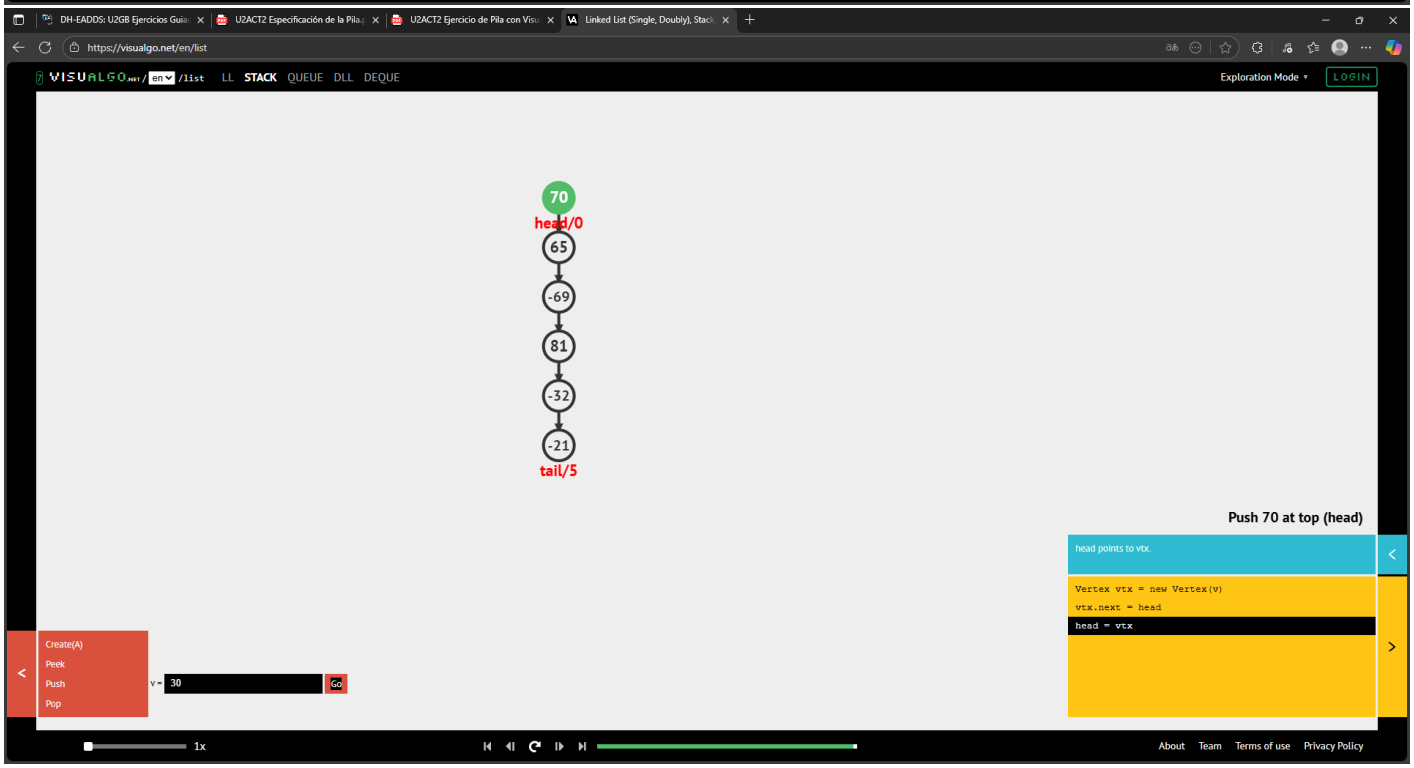
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Exploration Mode
LOGIN
70
head/0
65
-69
81
-32
-21
tail/5
Push 70 at top (head)
head points to vtx.
Vertex vtx = new Vertex(v)
vtx.next = head
head = vtx
Create(A)
Peek
Push
Pop
v = 30
Go
1x
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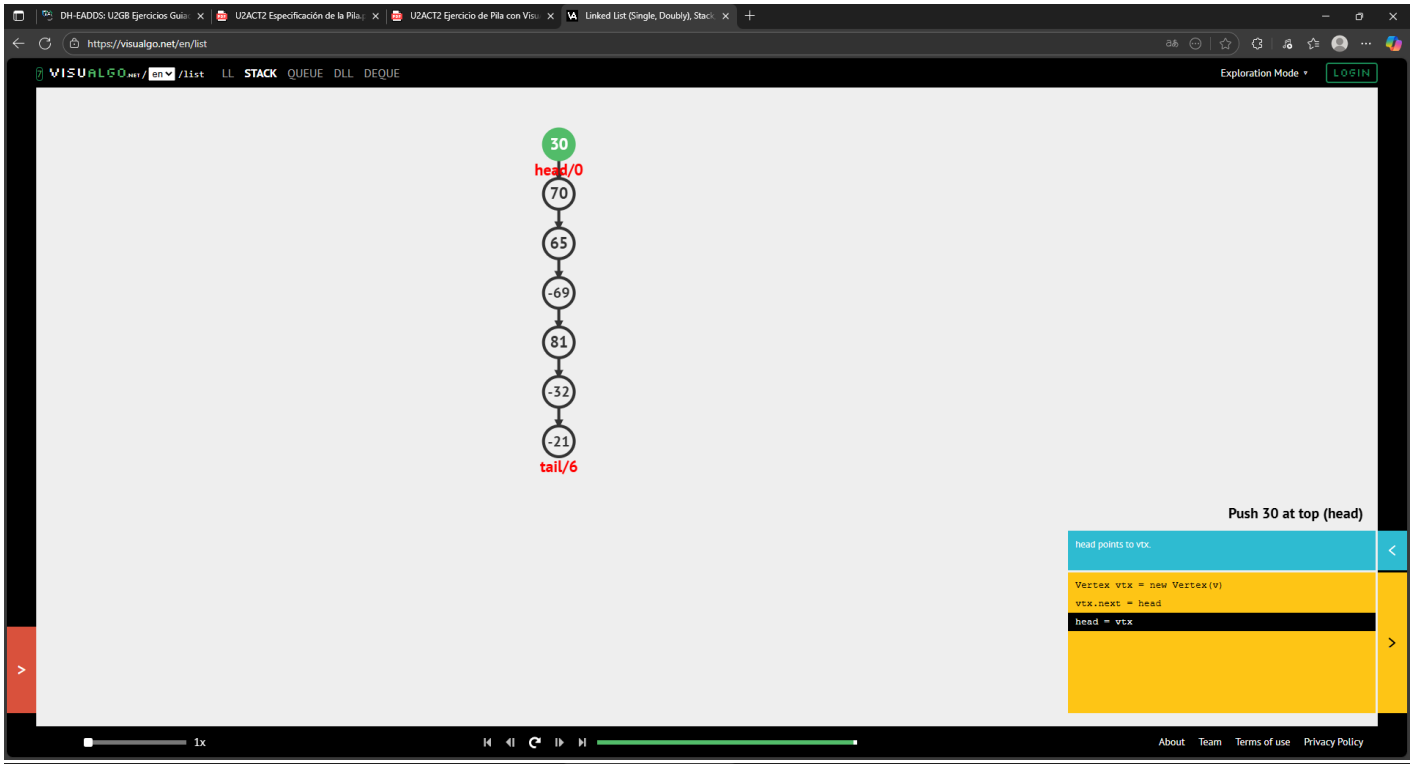
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Exploration Mode
LOGIN
30
head/0
70
65
-69
81
-32
-21
tail/6
Push 30 at top (head)
head points to vtx.
Vertex vtx = new Vertex(v)
vtx.next = head
head = vtx
1x
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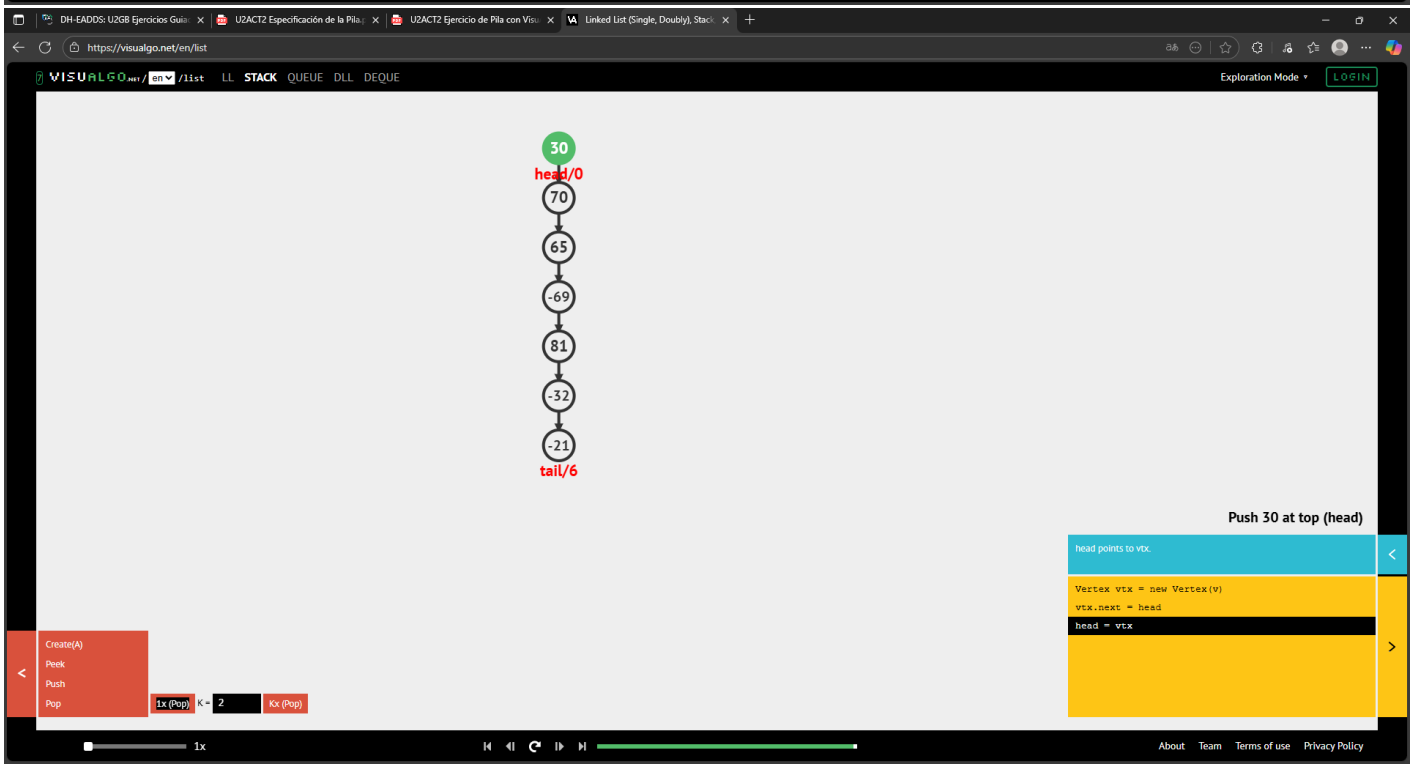
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65
-69
81
-32
-21
tail/6
Push 30 at top (head)
head points to vtx.
Vertex vtx = new Vertex(v)
vtx.next = head
head = vtx
Create(A)
Peek
Push
Pop
1x (Pop)
K =
2
Kx (Pop)
1x
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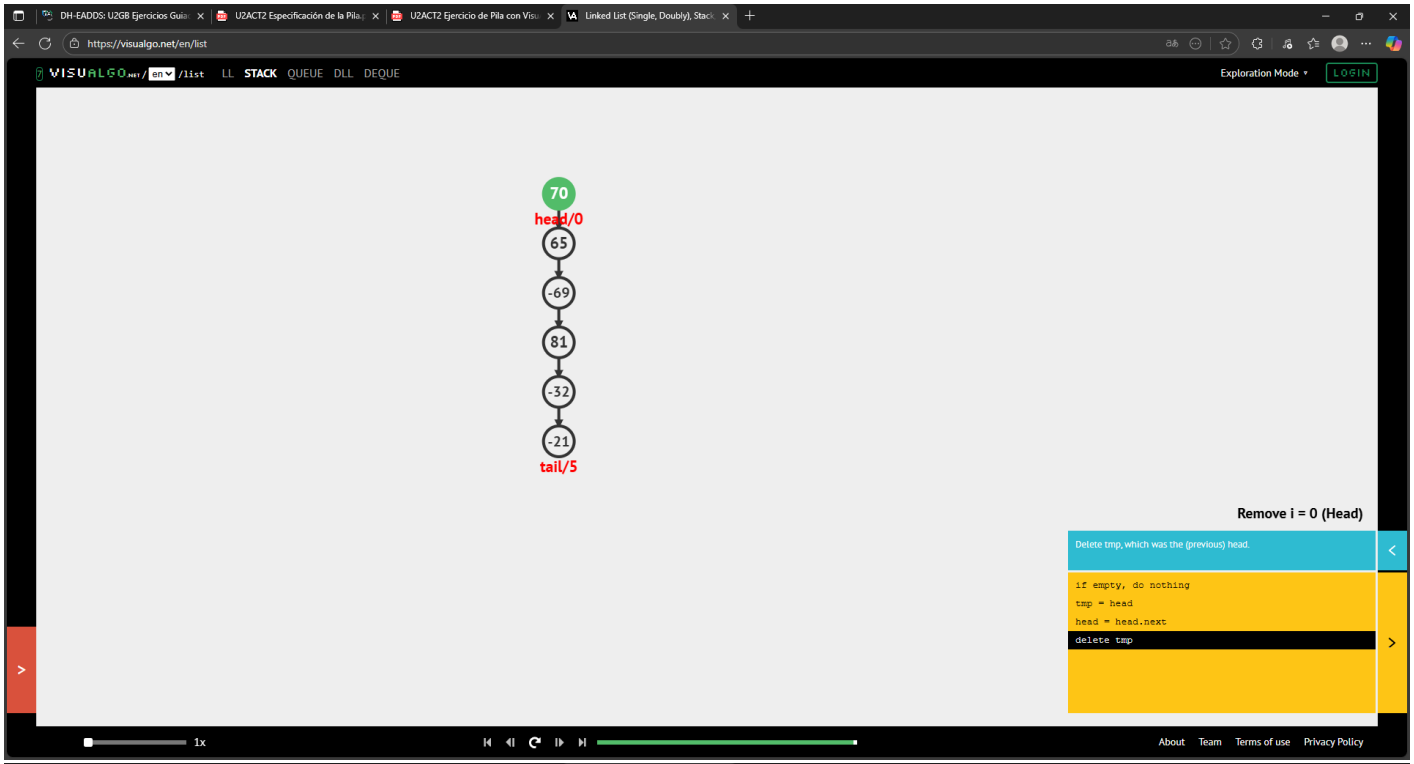
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LOGIN
70
head/0
65
-69
81
-32
-21
tail/5
Remove i = 0 (Head)
Delete tmp, which was the (previous) head.
if empty, do nothing
tmp = head
head = head.next
delete tmp
1x
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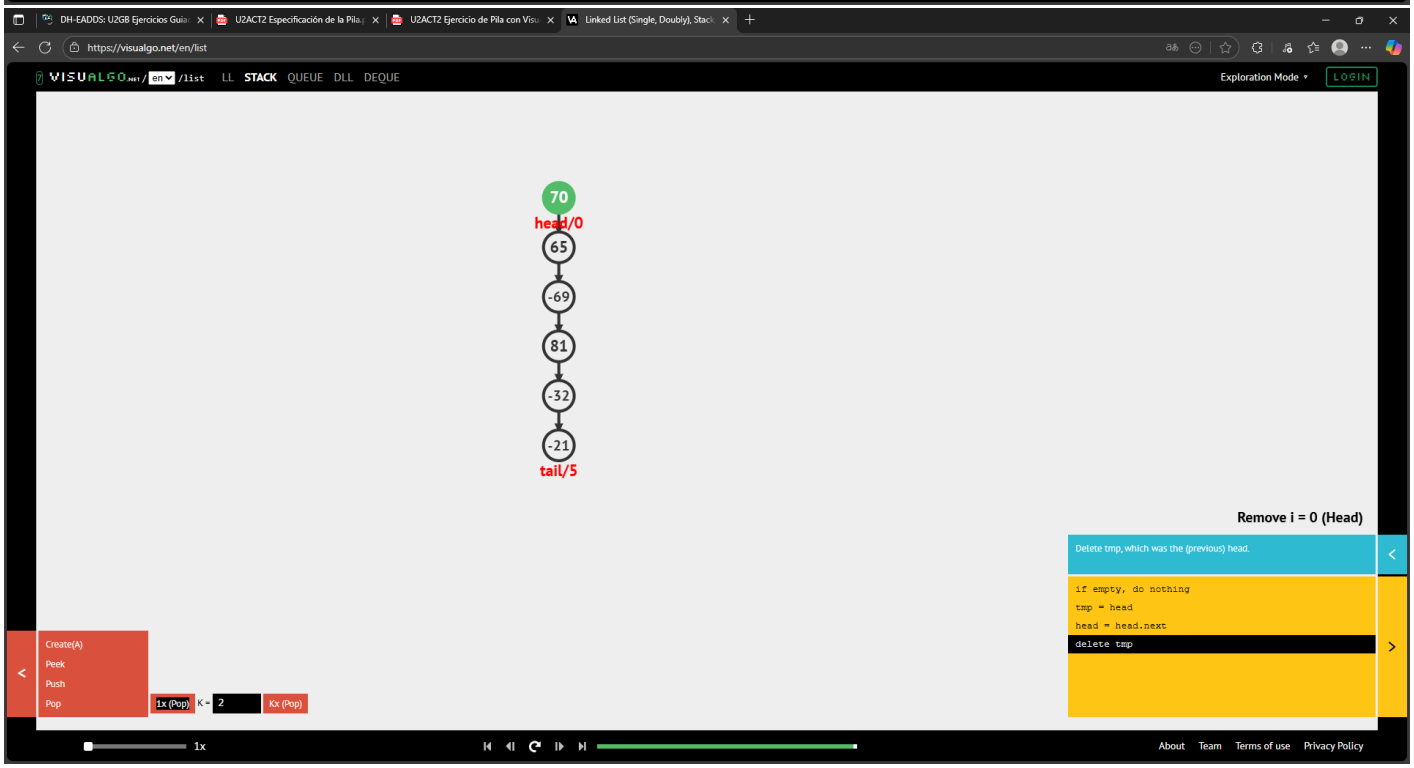
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tail/5
Remove i = 0 (Head)
Delete tmp, which was the (previous) head.
if empty, do nothing
tmp = head
head = head.next
delete tmp
Create(A)
Peek
Push
Pop
1x (Pop)
K =
2
Kx (Pop)
1x
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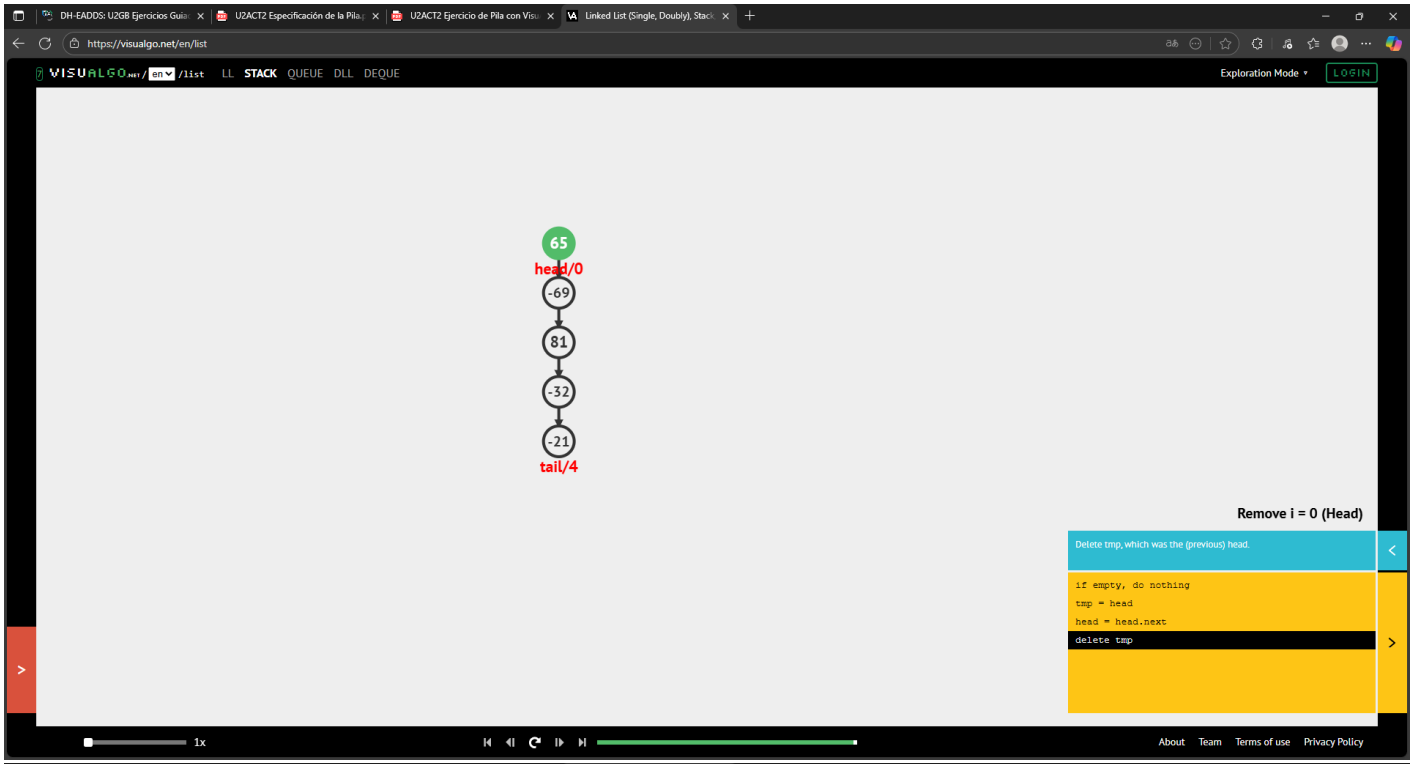
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Delete tmp, which was the (previous) head.
if empty, do nothing
tmp = head
head = head.next
delete tmp
1x
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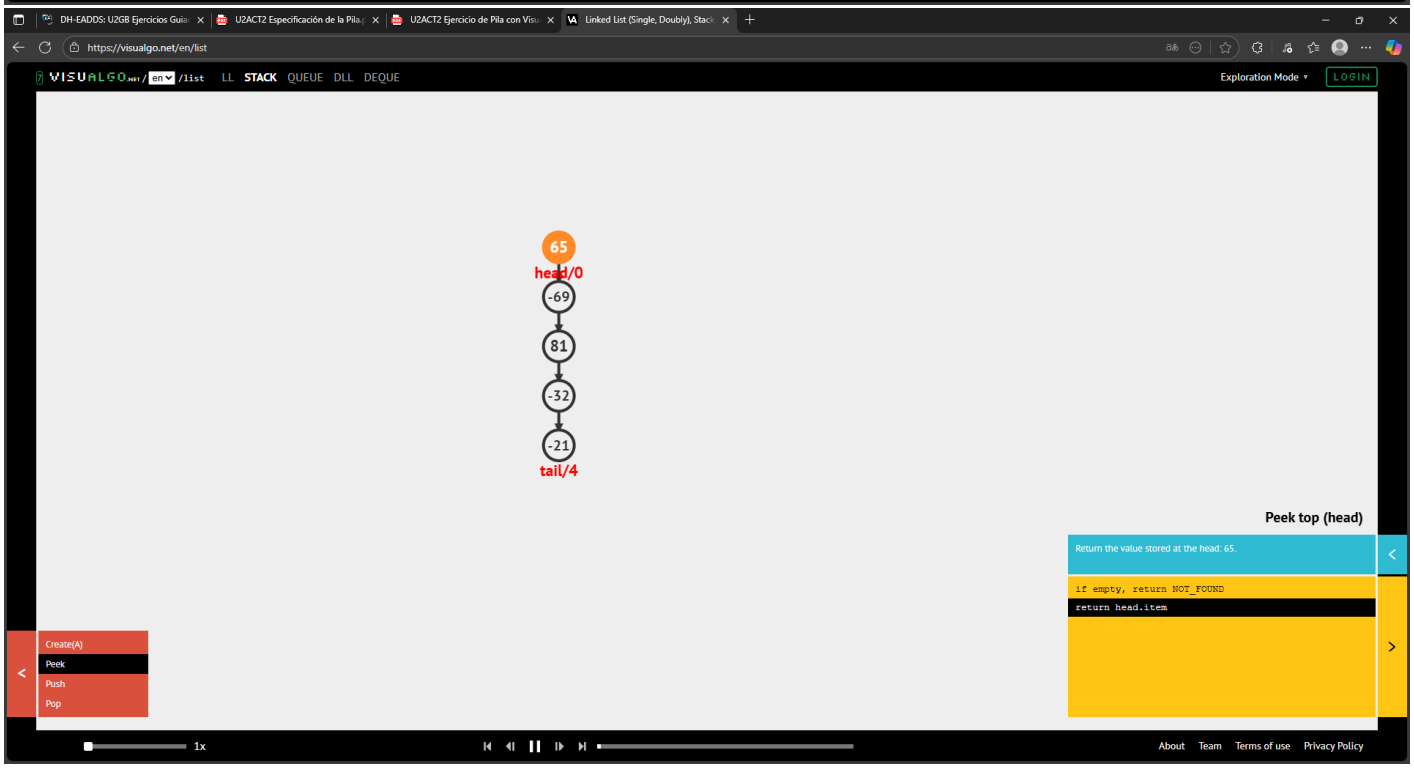
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LOGIN
65
head/0
-69
81
-32
-21
tail/4
Peek top (head)
Return the value stored at the head: 65.
if empty, return NOT_FOUND
return head.item
Create(A)
Peek
Push
Pop
1x
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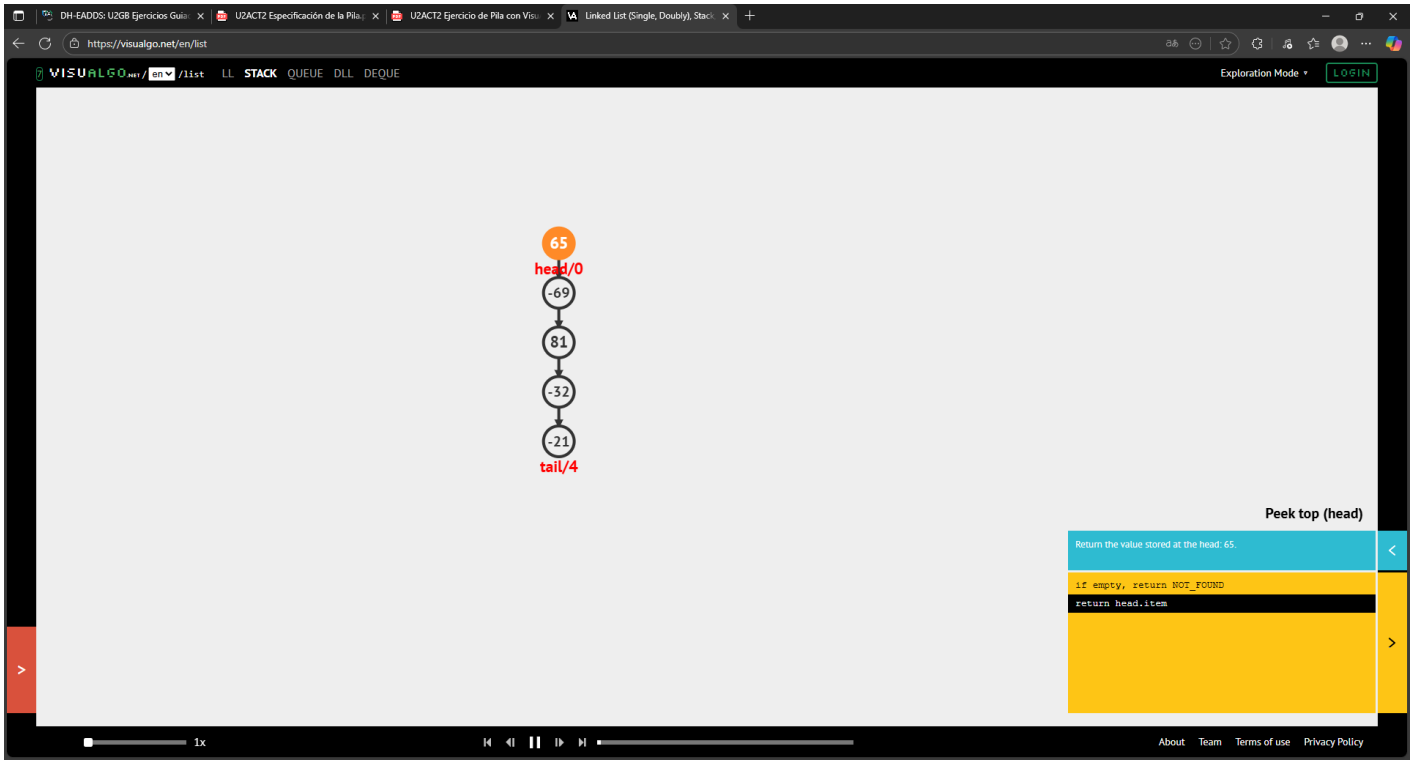
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Exploration Mode
LOGIN
65
head/0
-69
81
-32
-21
tail/4
Peek top (head)
Return the value stored at the head: 65.
if empty, return NOT_FOUND
return head.item
1x
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Pilas con VisuAlgo 17-10-25

Marlon Rojas Galindo

¿Que estructura se forma visualmente con los nodos?

Se observan nodos ordenados verticalmente, cada nodo apunta al siguiente nodo, de arriba hacia abajo

¿Que sucede si haces pop en una lista vacia?

No realiza nada

¿Que diferencia hay entre push y pop?

Que la operacion posh agrega un elemento hasta arriba de la pila y una operacion pop elimina el ultimo elemento agregado.

Mencionar al menos 5 casos practicos en donde se utilizen las pilas.

-Al momento de deshacer un cambio en un software.
Al momento de subir @lotes

- Recorsividad. Aplicar la recorsividad implica apilar procesos de una foncion para posteriormente realizarlos y descartarlos desde el ultimo proceso hasta el primero

- Al momento de llamar una funcion dentro de otra foncion.

- Historial. Guardar la ultima pagina visitada.