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#include <iostream>

class ListStack

{

private:

struct Node

{

int value;

Node\* next;

Node(int v, Node\* n) : value(v), next(n) {}

};

Node\* head = nullptr;

int count = 0;

public:

int size() const

{

return count;

}

bool Empty() const

{

return count == 0;

}

int peek() const

{

if (Empty())

{

throw std::runtime\_error("ListStackEmptyException");

}

return head->value;

}

void Push(int value)

{

head = new Node(value, head);

count++;

}

int Pop()

{

if (Empty())

{

throw std::runtime\_error("ListStackEmptyException");

}

int value = head->value;

Node\* temp = head;

head = head->next;

delete temp;

count--;

return value;

}

void insertAtBottom(int value)

{

if (Empty())

{

Push(value);

}

else

{

int temp = Pop();

insertAtBottom(value);

Push(temp);

}

}

void print() const

{

Node\* temp = head;

while (temp != nullptr)

{

std::cout << temp->value << " ";

temp = temp->next;

}

}

};

int main()

{

ListStack s;

for (int i = 1; i <= 100; i++)

s.Push(i);

for (int i = 1; i <= 50; i++)

s.Pop();

s.print();

return 0;

}