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Opened: Wednesday, 11 October 2023, 12:00 AM
Due: Wednesday, 18 October 2023, 12:00 AM

Queue-based Activities

Problem 1:

Implement a Stack using two queues q1 and q2.

Example 1:

Input:

push(2)

push(3)

pop()

push(4)

pop()

Output: 3 4

Explanation:

push(2),the stack will be {2}. push(3), the stack will be {2 3}. pop(), poped element will be 3 the stack will be {2}

push(4), the stack will be {2 4}. pop(), poped element will be 4

Example 2:

Input:

push(2)

pop()

pop()

push(3)

Output: 2 -1

Your Task:

Since this is a function problem, you don't need to take inputs. You are required to complete the two methods push() which takes an integer 'x' as input denoting the element to be pushed into the stack and pop() which returns the integer poped out from the stack(-1 if the stack is empty).

?

	Expected Time Complexity: O(1) for push() and O(N) for pop() Constraints: 1 <= Number of queries <= 100, 1 <= values of the stack <= 100
Problem 2:	Design a case-based selection menu to create procedures for the following operations. : CASE 1. Insertion in a Queue using Array implementation CAES 2. Deletion in a Queue using Array implementation CASE 3. Insertion in a Circular Queue CASE4. Deletion in a Circular Queue

Problem 3:	Implement modular approach to create linear queue operations. The skeleton code is below:
	struct node
	{
	int info;
	struct node *ptr;
	};
	int frontelement();
	void enqueue(int data);
	void dequeue();
	void empty();
	void display();
	void create();
	void queuesize();
	void main()
	{
	printf("\n 1 - Enque");
	printf("\n 2 - Deque");
	printf("\n 3 - Front element");
	printf("\n 4 - Empty");
	printf("\n 5 - Exit");
	printf("\n 6 - Display");
	printf("\n 7 - Queue size");
	}

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Submission status

Submission status	Submitted for grading
Grading status	Not graded
Time remaining	Assignment was submitted 4 days 2 hours early
Last modified	Friday, 13 October 2023, 9:47 PM
File submissions	P1.c 13 October 2023, 9:47 PM P2.c 13 October 2023, 8:45 PM P3.c 13 October 2023, 2:18 PM
Submission comments	Comments (0)