Stack using fixed size array

Write a program to implement a stack S using an array A of size n as the underlying data structure. The stack must support the functions isEmpty, PUSH, POP and isFull operations.

Input Format

- The first line of the input contains an integer n, the size of the array A.
- Upcoming lines contain a character from 'i', 'd', 'e', or 't' followed by zero or one integer.
- Character 'i' is followed by an integer separated by space. In this operation, the integer isinserted to the top of S.
- Character 'd' is to delete and print the most recently inserted element from S.
- Character 'e' is to check whether the Stack is empty or not.
- Character 't' is to 'terminate' the program.

Constraints

- n ∈ [0,10^5]
- The integer, if given alongside the options, is in the range [−10^6,10^6].

Output Format

- The output (if any) of each command should be printed on a separate line.
- For option 'd', print the deleted element. If S is empty, then print −1.
- For option 'e', if S is not empty, then print 1. If S is empty, then print −1.

Sample Input 0

```
10
i 8
i 10
d
i 12
d
d
d
e
i 18
e
t
```

Sample Output 0

```
10
12
8
-1
-1
1
```


Current Buffer (saved locally, editable) C

```c
#include <stdio.h>
#include <string.h>
#include <math.h>
#include <stdlib.h>

int main() {

    /* Enter your code here. Read input from STDIN. Print output to STDOUT */
    return 0;
}

```

Line: 1 Col: 1