```c
#include <stdio.h>
#define SIZE 100
int stack1[SIZE], top1 = -1;
int stack2[SIZE], top2 = -1;
void push(int x) {
    stack1[++top1] = x;
}
int pop() {
    if (top2 == -1) {
        while (top1 >= 0)
            stack2[++top2] = stack1[top1--];
    }
    if (top2 >= 0)
        return stack2[top2--];
    return -1;
}
int peek() {
    if (top2 == -1) {
        while (top1 >= 0)
            stack2[++top2] = stack1[top1--];
    }
    if (top2 >= 0)
        return stack2[top2];
    return -1;
}
```

```c
int empty() {
    return (top1 == -1 && top2 == -1) ? 1 : 0;
}
void printQueue() {
    int i;
    printf("Queue is: [");
    for (i = top2; i >= 0; i--)
        printf("%d%s", stack2[i], (i != 0 || top1 != -1) ? ", " : "");
    for (i = 0; i <= top1; i++)
        printf("%d%s", stack1[i], (i != top1) ? ", " : "");
    printf("]\n");
}
int main() {
    push(1);
    printQueue();
    push(2);
    printQueue();
    printf("Peek: %d\n", peek());
    printf("Pop: %d\n", pop());
    printQueue();
    printf("Empty: %s\n", empty() ? "true" : "false");
    return 0;
}
```

```
Queue is: [1]
Queue is: [1, 2]
Peek: 1
Pop: 1
Queue is: [2]
Empty: false
```