Date
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```
#include <stdio.h>
#define N 3
int stack [N];
int top -1;
void push () {
    int x;
    printf("Enter the data: ");
    scanf ("%d", &x);
    if (top == N-1) {
        printf ("Overflow \n");
    }
    else {
        top++;
        stack [top] = x;
    }
}
void pop () {
    int item;
    if (top == -1) {
        printf("Underflow");
    }
    else {
        item = stack [top];
        top--;
        printf("%d", item);
    }
}
void peek () {
    if (top == -1) {
        printf ("Underflow");
    }
```

```
void peek () {
    if (top == -1) {
        printf (" Underflow \n");
    }
    else {
        printf("%d", stack[top]);
    }
}
int main () {
    int i=1 ;
    while (i=1) {
        int num ;
        printf ("Enter the number for the following
                functions: 1 for push, 2 for pop,
                3 for peek: ");
        scanf ("%d" &num);
        switch (num) {
            case 1 :
                push ();
                break;
            case 2 :
                pop ();
                break;
            case 3:
                peek();
                break;
            case 4:
                printf ("Invalid number entered");
                i=0;
                break ;
        }
    }
}
```

Eg- Enter the number for the following functions:
1 for push, 2 for pop, 3 for peek : 1
Enter the data : 1
Enter the number for the following functions :
1 for push, 2 for pop, 3 for peek : 1
Enter the data : 2
Enter the number for the following functions :
1 for push, 2 for pop, 3 for peek : 1
Enter the data : 3
Overflow
Enter the number for the following functions :
1 for push, 2 for pop, 3 for peek : 3
2 Enter the number for the following functions :
1 for push, 2 for pop, 3 for peek : 2
2 Enter the number for the following functions :
1 for push, 2 for pop, 3 for peek : 2
1 Enter the number for the following functions :
1 for push, 2 for pop, 3 for peek : 2
Underflow Enter the number for the following functions : 1 for push, 2 for pop, 3 for peek : 4
Invalid Number Entered