

```

#include <stdio.h>
#include <stdlib.h>
#include <string.h>
#include <math.h>
#define STACK_SIZE = -1
void push

```

```

int top = -1;
int stack[STACK_SIZE];

```

```

void push (int ele)

```

```

{
    if (top == STACK_SIZE - 1) {

```

```

        printf ("Stack overloaded\n");

```

```

    }

```

```

    else {

```

```

        top = top + 1;

```

```

        stack[top] = ele;

```

```

        printf ("%d is successfully pushed", stack[top]);

```

```

    }

```

```

void pop ( )

```

```

{

```

```
if (top == -1) {
```

```
printf("Stack is empty\n");
```

```
}
```

```
else
```

```
{  
printf("%d is popped out of stack\n", stack[top]);
```

```
top = top - 1;
```

```
}
```

```
}
```

```
void display() {
```

```
if (top == -1) {
```

```
printf("Stack is empty\n");
```

```
}
```

```
else {
```

```
printf("The elements are
```

```
for (int i = 0; i <= top; i++) {
```

```
printf("%d\n", stack[i])
```

```
}
```

```
}
```

```
}
```

```

int main {
    int item, choice = 1;
    while (choice != 4) {
        printf("Enter your choice in 1: to push an item, 2: to pop an item, 3: display all items, 4: exit\n");
        scanf("%d", &choice);
    }
}

```

```

switch (choice) {

```

```

    case 1: push(item);

```

```

        printf("Enter the item to be pushed\n");
        scanf("%d", &item);

```

```

        push(item); break;

```

```

    case 2:

```

```

        pop();

```

```

        break;

```

```

    case 3: display();

```

```

        break;

```

```

}

```

```

default:

```

```

    case 4: printf("Wrong choice\n");

```

```

        exit(0);

```

```

        break;

```

```

} printf("Program completed\n");

```