#define STACK\_LENGTH 10  
  
**static double** stack[STACK\_LENGTH];  
**static int** position = 0;  
  
**void** push(**void**);  
**double** pop(**void**);  
**void** printStack(**void**);

#include <stdio.h>  
#include "stackHeader.h"  
  
// Function to push an element onto the stack  
**void** push(**void**){  
 **double** number;  
 **if**(position == (STACK\_LENGTH - 1)){  
 (**void**) printf("Stack is full! \n");  
 **return**;  
 } **else** {  
 (**void**) printf("Enter the element you want to push onto the stack, please. \n");  
 (**void**) scanf("%lf", &number);  
 position += 1;  
 stack[position] = number;  
 }  
 **return**;  
}  
  
// Function to pop the top element of the stack  
**double** pop(**void**){  
 **double** number;  
 **if**(position == -1){  
 (**void**) printf("Stack is Empty\n");  
 **return** (position);  
 } **else** {  
 number = stack[position];  
 (**void**) printf("Poped element is = %.4lf \n", stack[position]);  
 position -= 1;  
 }  
 **return** (number);  
}  
  
// Function to print the momentary stack out  
**void** printStack(**void**){  
 **int** i;  
 **if**(position == -1){  
 (**void**) printf("Stack is empty\n");  
 **return**;  
 } **else** {  
 (**void**) printf("\n Your stack has a status of: \n");  
 **for**( i = position; i >= 0; i--){  
 (**void**) printf("%.4lf \n", stack[i]);  
 }  
 }  
 (**void**) printf("\n");  
}  
  
**void** main (){  
 **int** choice;  
 **int** option = 1;  
 position = -1;  
  
 printf("STACK OPERATIONS AVAIBLE\n");  
 **while**(option){  
 (**void**) printf("---------------------------------\n");  
 (**void**) printf(" 1 -----> PUSH \n");  
 (**void**) printf(" 2 -----> POP \n");  
 (**void**) printf(" 3 -----> PRINT STACK \n");  
 (**void**) printf(" 4 -----> QUIT! \n");  
 (**void**) printf("---------------------------------\n");  
  
 (**void**) printf("Please enter your choice to proceed!\n");  
 (**void**) scanf("%d", &choice);  
 **switch** (choice){  
 **case** 1:  
 push();  
 **break**;  
 **case** 2:  
 pop();  
 **break**;  
 **case** 3:  
 printStack();  
 **break**;  
 **case** 4:  
 (**void**) printf("Goodbye!");  
 **return**;  
  
 **default**:  
 printStack();  
 }  
 fflush(stdin);  
 (**void**) printf("Would you like to continue? [0/1]?\n");  
 (**void**) scanf("%d", &option);  
 }  
 (**void**) printf("Goodbye!");  
}