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//11.stack expression
#include<stdio.h>
#include<stdlib.h>
#define Size 4
int Top=-1, inp_array[Size];
void Push();
void Pop();
void show();
int main()
{
        int choice;  while(1)
        {
                printf("\nOperations performed by Stack");
                printf("\n1.Push the element\n2.Pop the element\n3.Show\n4.End");
                printf("\n\nEnter the choice:");
                scanf("%d",&choice);
   switch(choice)
                {
                        case 1: Push();
                                        break;
                        case 2: Pop();
                                        break;
                        case 3: show();
                                        break;
                        case 4: exit(0);
     default: printf("\nInvalid choice!!");
                }
        }
}
void Push()
{
```

```
        int x;
if(Top==Size-1)
        {
                printf("\nOverflow!!");
        }
        else
        {
                printf("\nEnter element to be inserted to the stack:");
                scanf("%d",&x);
                Top=Top+1;
                inp_array[Top]=x;
        }
}
void Pop()
{
        if(Top==-1)
        {
                printf("\nUnderflow!!");
        }
        else
        {
                printf("\nPopped element:  %d",inp_array[Top]);
                Top=Top-1;
        }
}
void show()
{
if(Top==-1)
        {
                printf("\nUnderflow!!");
        }
```

```
        else
        {
                printf("\nElements present in the stack: \n");
                for(int i=Top;i>=0;--i)
                        printf("%d\n",inp_array[i]);
        }
```

```
Operations performed by Stack
1.Push the element
2.Pop the element
3.Show
4.End

Enter the choice:1

Enter element to be inserted to the stack:96

Operations performed by Stack
1.Push the element
2.Pop the element
3.Show
4.End

Enter the choice:3

Elements present in the stack:
96
58

Operations performed by Stack
1.Push the element
2.Pop the element
3.Show
4.End

Enter the choice:2

Popped element:  96
Operations performed by Stack
1.Push the element
2.Pop the element
3.Show
4.End
```

}