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//12.stack notations

#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()
{

```

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        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!!");
    }

```

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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:50

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:

50

Operations performed by Stack

- 1.Push the element
- 2.Pop the element
- 3.Show
- 4.End

Enter the choice:4

Process exited after 30.33 seconds with return value 0

Press any key to continue . . . |

}