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Date
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Lab program - 1.

```
#include <stdio.h>
# define size 3
 top = -1
void push (int [], int);
int pop (int []);
void display (int []);
int main()
 {
     int stack[size], choice, element, ch;
     do
    { printf (" Enter your choice \n");
      printf (" 1. Push \n 2. Pop \n 3. Display \n");
      scanf (" %d ", & choice);
     switch (choice)
     { case 1: printf (" Enter the element to be pushed
               scanf (" %d ", & element);
               push (stack, element);
               break;
       case 2: element = pop (stack);
               if (element == -1)
                    printf (" Stack underflow \n");
               else
                    printf (" Poped element is %d \n", element
               break;
       case 3: display (stack);
               break;
       default: printf (" Wrong choice \n");
 }
```

```
        printf ("Do you want to continue? : Press 0 to
        stop, else press any other number \n");;
        scanf ("%d", &ch);
    } while (ch != 0);
        return 0;
}
void push (int stack[], int ele)
{
    if (top == size-1)
    { printf ("Stack overflow. This element cannot be
      added to stack. \n");
    }
    else
    { top ++;
      stack[top] = ele;
    }
}
int pop (int stack[])
{
    int popele;
    if (top == -1)
        return -1;
    else
    { popele = stack[top];
      top--;
      return popele;
    }
}
void display (int stack[])
{
```


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```
int i;
printf("The stack elements are \n");
for (i= top; i>=0; i--)
{
    printf("%d\t", stack[i]);
}
printf("\n");
}
```


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