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");
3
```

```
        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[])
{
```

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