```
#include<stdio.h>
#include<stdlib.h>
int stack[50];
int ch;
void push(void);
void pop(void);
void display(void);
int n,top,no,i;
int main()
{
  top=-1;
  printf("\n Enter the size of stack:");
  scanf("%d",&n);
  printf("\n Please enter the stack operation which you want to perform:");
  printf("\n 1.Push\n 2.Pop\n 3.display\n 4.exit");
  while(ch!='0')
  {
     printf("\n Enter the Choice:");
     scanf("%d",&ch);
     switch(ch)
       case 1:
          push();
          break;
       case 2:
          pop();
          break;
       case 3:
          display();
          break;
       case 4:
          exit(0);
          break;
       default:
       {
          printf ("\nINVALID CHOICE!");
       }
  return 0;
```

```
void push()
  if(top \ge n-1)
     printf("\nSTACK OVERFLOW");
  }
  else
     printf(" Enter a value to be inserted/pushed:");
     scanf("%d",&no);
     top++;
     stack[top]=no;
  }
}
void pop()
  if(top \le -1)
     printf("\n UNDERFLOW");
  else
     printf("\n The popped element is %d",stack[top]);
     top--;
  }
}
void display()
  if(top >= 0)
     printf("\n The elements in stack are as follows: \n");
     for(i=top;i>=0;i--)
       printf("\n%d\,",stack[i]);
     printf("\n Press Next Choice");
  }
  else
     printf("\n The stack is empty");
  }
}
```



