LAB PROGRAM-1

```
#include<stdio.h>
#include<conio.h>
#define SIZE 3
int STACK[SIZE],TOP=-1,ITEM;
void push();
void pop();
void display();

int main()
{ int choice;
   while(1)
   {
      printf("\n\n 1:push\n 2:pop\n 3:display\n 4:exit\n");
      printf("enter your choice");
      scanf("%d",&choice);
      switch(choice)
   {
      case 1:push();
         break;
         case 2: pop();
         break;
         case 3: display();
         break;
         case 4: exit(0);
```

```
            break;
            default: printf("wrong choice");

    }
    }
    getch();
    return(0);
}
void push()
{
    if(TOP==SIZE-1)
    {
        printf("stack overflow");
        return;
    }
    else
    {
        printf("enter an element\n");
        scanf("%d",&ITEM);
        printf("entered element is %d\n\n",ITEM);
        TOP=TOP+1;
        STACK[TOP]=ITEM;
    }
}
void pop()
```

```
{
   int del;
   if(TOP==-1)
   {
      printf("stack underflow\n");
      return;
   }
   else
   {
      del=STACK[TOP];
      printf("poped element is %d\n",del);
      TOP=TOP-1;
   }
}
void display()
{
   int i;
if(TOP==-1)
{
printf("STACK IS EMPTY\n");
return;
}
else
{
   for(i=TOP;i>=0;i--)
```

```
  {
     printf("%d\n",STACK[i]);
  }
}
}
```

OUTPUT