```
#include <stdio.h>
#include<stdlib.h>
#define N 5
int stack[N];
int top=-1;
void push();
void pop();
void display();

void main()
{
   int choice;

   printf("\n1.push\n2.pop\n3.display\n4.exit\n");
   printf("enter the choice:");
   scanf("%d",&choice);
   do{
      switch(choice)
   {

      case 1:push();
      break;
      case 2:pop();
      break;
      case 3:display();
      break;
```

```
        case 4:exit(0);


    }
     printf("\n1.push\n2.pop\n3.display\n4.exit\n");
    scanf("%d",&choice);
     }while(choice!=4);
}
void push()
{
    int n;
    if(top==n-1)
    {
        printf("the stack is full");
        return;
    }
    int x;
    printf("enter the element to be inserted:");
    scanf("%d",&x);
    top++;
    stack[top]=x;


}
void pop()
{
    if(top==-1){
        printf("the stack is empty you cannot pop");
```

```
        return;
    }
    printf("the popped element is%d",stack[top--]);
}
void display()
{
    int i;
    printf("the elements in the stack are:");
    for(i=top;i>=0;i--)
        printf("%d",stack[i]);

}
```

```
enter the element to be inserted:2

1.push
2.pop
3.display
4.exit
1
enter the element to be inserted:4

1.push
2.pop
3.display
4.exit
2
the popped element is4
1.push
2.pop
3.display
4.exit
3
the elements in the stack are:2
1.push
2.pop
3.display
4.exit
4

Process returned 4 (0x4)   execution time : 14.794 s
Press any key to continue.
```