

1a ds

```
#include<stdio.h>

#define STACK_SIZE 3

int s[STACK_SIZE];

int top=-1;

void push()

{

int n;

if(top==STACK_SIZE-1)

printf("\nStack overflow\n");

else

{

printf("\nEnter the data to be pushed\n");

scanf("%d",&n);

s[++top]=n;

}

}

void pop()

{

if(top== -1)

printf("\nStack empty\n");

else

printf("\n%d is popped\n", s[top--]);

}

void display()

{

int i;

if(top== -1)
```

```
printf("\nStack empty\n");
else
{
printf("\nStack elements are\n");
for(i=top;i>=0;i--)
printf("%d\n",s[i]);
}
}
int main()
{
int ch;
for(;;)
{
printf("\n1.PUSH\t2.POP\t3.DISPLAY\t4.EXIT\n");
printf("\nEnter your choice\n");
scanf("%d",&ch);
switch(ch)
{
case 1: push();
break;
case 2: pop();
break;
case 3: display();
break;
case 4: return 0;
default: printf("\ninvalid choice\n");
}
}
}
```