// Implimentation of stack using array.

#include <stdio.h>

#define size 4

int element;

int st[size];

int top=-1 ;

int i ;

int main()

{

printf("menu:\n 1.push\n 2.pop\n 3.display\n 4.exit");

int ch;

while(1)

{

printf("\n enter your choice ");

scanf("%d",&ch);

switch(ch)

{

case 1:

printf("Enter the element to push:");

scanf("%d",&element);

if(isfull())

printf("\nstack is full");

else

push(element);

break;

case 2:

if(isempty())

printf("\nstack is empty");

else

printf("poped element is:%d\n",pop());

break;

case 3:

display();

break;

case 4:

exit(0);

}

}

}

int isfull() {

if(top>=size-1)

return 1;

else return 0;

}

int isempty(){

if(top==-1)

return 1;

else return 0;

}

void push(element)

{

st[++top]=element;

}

int pop()

{

element=st[top--];

return element;

}

display()

{

for(i=top;i>=0;i--)

printf("\n%d",st[i]) ;

}

/\* Output :

menu:

1.push

2.pop

3.display

4.exit

enter your choice 1

Enter the element to push:10

enter your choice 1

Enter the element to push:20

enter your choice 2

poped element is:20

enter your choice 2

poped element is:10

enter your choice 2

stack is empty

enter your choice 1

Enter the element to push:20

enter your choice 1

Enter the element to push:40

enter your choice 1

Enter the element to push:30

enter your choice 1

Enter the element to push:50

enter your choice 1

Enter the element to push:60

stack is full

enter your choice 3

50

30

40

20

\*/