# Program:

#include<iostream>

using namespace std;

void push();

void pop();

void display();

int stack[5];

int top=-1;

int main()

{

int schoice, data, choice;

do

{

cout<<"Enter Your Choice:\n1.Push\n2.Pop\n3.Display\n";

cin>>schoice;

switch(schoice)

{

case 1: push();

break;

case 2: pop();

break;

case 3: display();

break;

default: cout<<"Invalid Choice\n";

break;

}

cout<<"\nPress 1 to continue\n";

cin>>choice;

}while(choice==1);

return 0;

}

void push()

{

int data;

if(top==2)

{

cout<<"\nStack overflow\n";

}

else

{

cout<<"\nEnter The data to be inserted:\n";

cin>>data; top++;

stack[top]=data;

}

}

void pop()

{

if(top==-1)

{

cout<<"\nStack is Empty\n";

}

else

{

cout<<"popped out element is: "<<stack[top]<<"\n";

top--;

}

}

void display()

{

int i;

if(top==-1)

{

cout<<"\nStack is empty\n";

}

else

{

cout<<"\nData stored in stack are\nThe data displayed are from the top to bottom\n";

for(i=0;i<=top;i++)

{

cout<<stack[i]<<"\n";

}

}

}

# Output:

[ur12cs135@linux ~]$ g++ exp1.cpp

[ur12cs135@linux ~]$ ./a.out

Enter Your Choice:

1.Push

2.Pop

3.Display

2

Stack is Empty

Press 1 to continue

1

Enter Your Choice:

1.Push

2.Pop

3.Display

1

Enter The data to be inserted:

1

Press 1 to continue

1

Enter Your Choice:

1.Push

2.Pop

3.Display

1

Enter The data to be inserted:

2

Press 1 to continue

1

Enter Your Choice:

1.Push

2.Pop

3.Display

1

Enter The data to be inserted:

3

Press 1 to continue

1

Enter Your Choice:

1.Push

2.Pop

3.Display

1

Stack overflow

Press 1 to continue

1

Enter Your Choice:

1.Push

2.Pop

3.Display

3

Data stored in stack are

The data displayed are from the top to bottom

1

2

3

Press 1 to continue

1

Enter Your Choice:

1.Push

2.Pop

3.Display

2

popped out element is: 3

Press 1 to continue

1

Enter Your Choice:

1.Push

2.Pop

3.Display

2

popped out element is: 2

Press 1 to continue

1

Enter Your Choice:

1.Push

2.Pop

3.Display

2

popped out element is: 1

Press 1 to continue

1

Enter Your Choice:

1.Push

2.Pop

3.Display

2

Stack is Empty

Press 1 to continue

1

Enter Your Choice:

1.Push

2.Pop

3.Display

3

Stack is empty

Press 1 to continue

0

[ur12cs135@linux ~]$