//Stack implementation using Arrays in C++

```
#include<iostream>
using namespace std;
int stack[100];
int n,i,top,x;
void push();
void pop();
void display();
int main()
{
 int ch;
 cout<<"Enter the number of elements in the stack";
 cin>>n;
 i=1;
 top=-1;
 while(i)
 {
   cout<<"Enter your choice (1-4)"<<endl;
  cout<<"1.PUSH\n2.POP\n3.DISPLAY\n4.EXIT\n";
  cin>>ch;
  switch(ch)
  {
    case 1:push();
          break;
    case 2:pop();
          break;
    case 3:display();
          break;
    case 4:i=0;
          break;
    default:cout<<"Wrong Choice!!!!"<<endl;
```

```
            break;
    }
  }
return 0;
}

void push()
{
    if(top>=n-1)          // OVERFLOW i.e. if stack top goes beyond the size of the stack
    {
      cout<<"STACK IS OVERFLOW"<<endl;

  }
  else
  {

    cout<<"Enter the value to be added :";
  cin>>x;
  top=top+1;      // while inserting the element increment the top and insert
  stack[top]=x;
    }
}
void pop()
{
  if(top<=-1)              // Underflow i.e. stack is at index -1
  {
    cout<<"STACK IS UNDERFLOW"<<endl;
  }
  else
  {
    cout<<"Value :"<<stack[top]<<"GOT deleted."<<endl;
```

```
    top--;
  }
}
void display()
{
  if(top>=0)
  {
    cout<<"Elements in the stack are :";
    for(i=top;i>=0;i--)
       cout<<stack[i]<<" ";
    cout<<"\n";
  }
  else
   cout<<"STACK IS EMPTY."<<endl;
}
```