

```
/* Below program is written in C++ language */
```

```
#include<iostream>
```

```
using namespace std;
```

```
class Stack
```

```
{
```

```
    int top;
```

```
    public:
```

```
    int a[10]; //Maximum size of Stack
```

```
    Stack()
```

```
    {
```

```
        top = -1;
```

```
    }
```

```
    // declaring all the function
```

```
    void push(int x);
```

```
    int pop();
```

```
    void isEmpty();
```

```
};
```

```
// function to insert data into stack
```

```
void Stack::push(int x)
```

```
{
```

```
    if(top >= 10)
```

```
    {
```

```
        cout << "Stack Overflow \n";
```

```
    }
```

```

else
{
    a[++top] = x;
    cout << "Element Inserted \n";
}
}

```

// function to remove data from the top of the stack

```

int Stack::pop()
{
    if(top < 0)
    {
        cout << "Stack Underflow \n";
        return 0;
    }
    else
    {
        int d = a[top--];
        return d;
    }
}

```

// function to check if stack is empty

```

void Stack::isEmpty()
{
    if(top < 0)
    {
        cout << "Stack is empty \n";
    }
}

```

```
else
{
    cout << "Stack is not empty \n";
}
}
```