

# LAB TASK # 04

## CODE # 01:

```
#include <iostream>

using namespace std;

const int max = 1000;

class Stack {
private:
    int top;
    int arr[1000];

public:
    Stack() {
        top = -1;
    }

    bool push(int value) {
        if (top >= (1000 - 1)) {
            cout << "Stack is overflow" << endl;
            return false;
        } else {
            top++;
            arr[top] = value;
            return true;
        }
    }
}
```

```
}
```

```
bool pop() {  
    if (top < 0) {  
        return false;  
    } else {  
        cout<<"Poped element is "<<arr[top]<<endl;  
        top--;  
        return true;  
    }  
}
```

```
bool peek(){  
    if (top < 0) {  
        return false;  
    } else {  
        cout<<"Top value is "<<arr[top]<<endl;  
        return true;  
    }  
}
```

```
bool isEmpty() const {  
    return top < 0;  
}
```

```
bool isFull() const {  
    return top >= (1000 - 1);  
}
```

```
    }  
};
```

```
int main() {  
    Stack s;  
    int value;  
  
    s.push(10);  
    s.push(20);  
    s.push(30);  
    s.push(40);  
    s.pop();  
    s.peek();  
  
    return 0;  
}
```